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04:59 PM

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Exhibits A – CC

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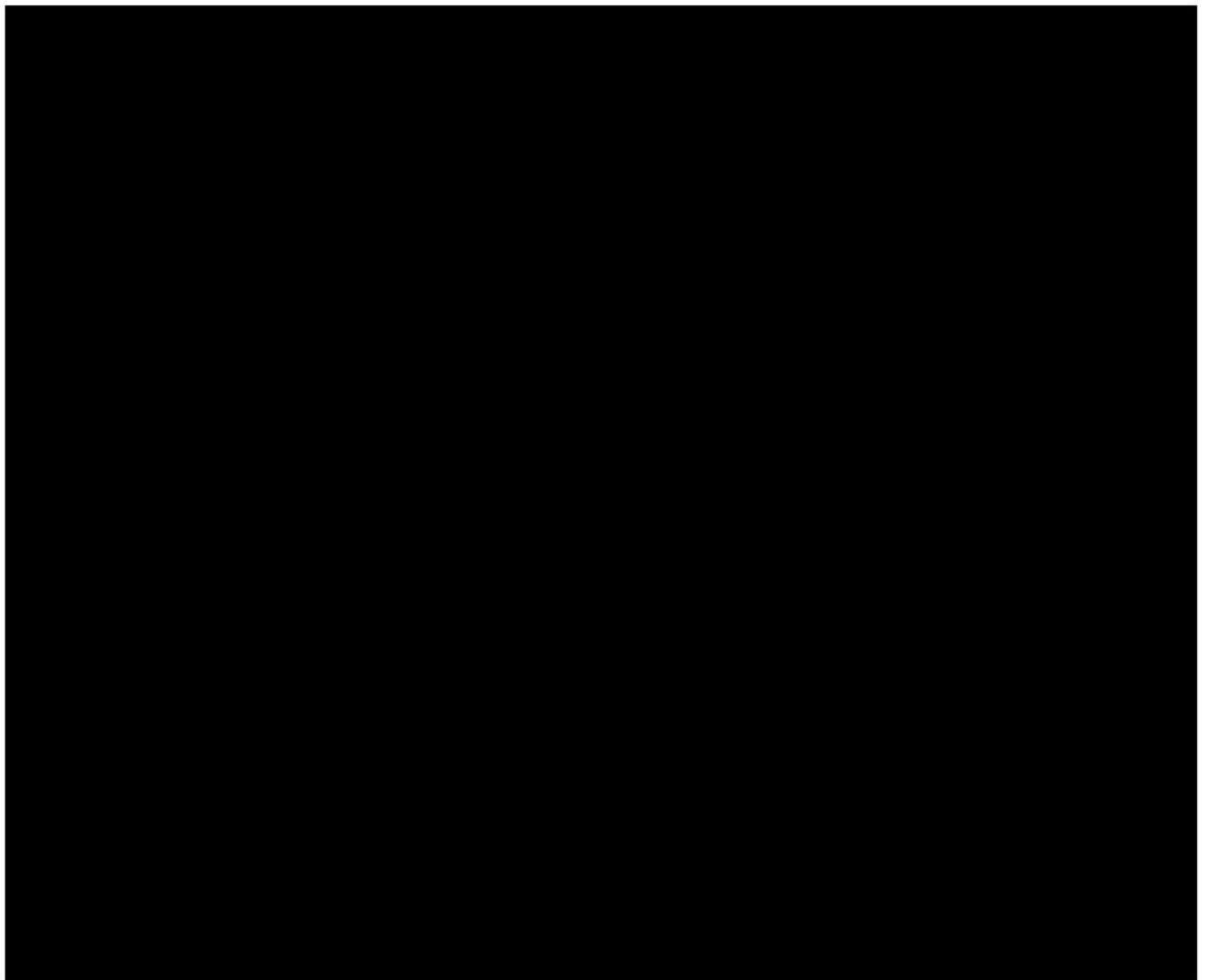
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Exhibit A



From: **Maryam Brown** <stakeholderoutreach@socalgas.com>

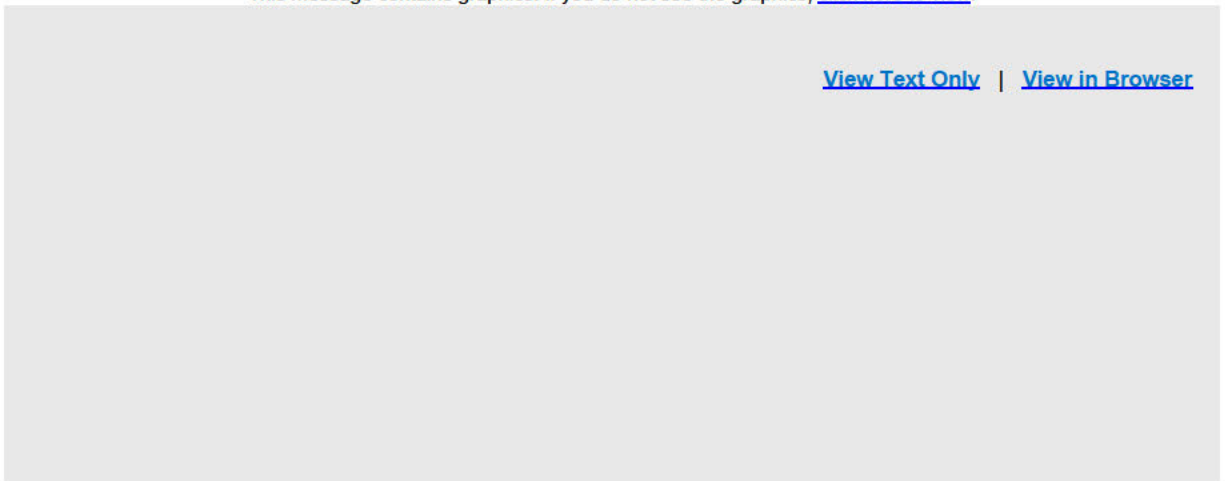
Date: Thu, Feb 23, 2023 at 9:00 AM

Subject: Invitation to Serve on SoCalGas' Angeles Link Planning Advisory Group

To: <katherine.ramsey@sierraclub.org>

This message contains graphics. If you do not see the graphics, [click here to view](#).

[View Text Only](#) | [View in Browser](#)



Dear Sierra Club Representative:

I am writing to personally invite you to participate in SoCalGas' [Angeles Link](#) Planning Advisory Group (PAG) to provide input on a proposed clean renewable hydrogen pipeline system that could deliver safe, clean renewable, reliable energy to the Los Angeles region. SoCalGas created the PAG to collaborate on project design, share technical advice, and collect needed feedback from stakeholders.

SoCalGas received [approval](#) from the California Public Utilities Commission (CPUC) on December 16, 2022, to track costs for advancing the first phase of this important endeavor, and we are seeking your critical input as we work to support California's goal of a net zero future.

The PAG will comprise a broad and diverse group of stakeholders (e.g., government entities, environmental justice nonprofits, environmental nonprofits, labor groups, industry, academia, and rate payer advocates) and parties to the Angeles Link proceeding, each with a unique set of perspectives and experience.

The PAG will meet quarterly starting with our virtual kick-off meeting on March 15, 2023, from 9:30am to 12:00pm. The estimated time commitment would be no greater than four hours per meeting and we are planning to have both in-person and virtual meetings.

As a PAG participant, you will provide input to SoCalGas, on an advisory basis, regarding clean renewable hydrogen market information, technical aspects of project design and development, and environmental and environmental justice issues. Your careful consideration of this invite-only opportunity is greatly appreciated. If you are unable to participate directly, we

would appreciate your assistance in identifying and delegating this membership to a senior level staff person in your organization who can be an effective participant for the PAG.

Please respond to this invitation directly via email at stakeholderoutreach@socalgas.com. For any questions you may have, contact our Angeles Link Senior Public Affairs Manager Emily Grant at (714) 388-4889 or egrant1@socalgas.com. We are also receiving PAG facilitation support from Chester Britt of Arellano Associates who will contact you directly to confirm your participation and answer questions you may have.

Thank you for your consideration of this opportunity.

Sincerely,



Maryam Brown
President, SoCalGas

angeles link



*By clicking these links, you will transfer directly to the website of a third party which is not part of Southern California Gas Company. The Terms and Conditions and Privacy Policy on that website will apply.

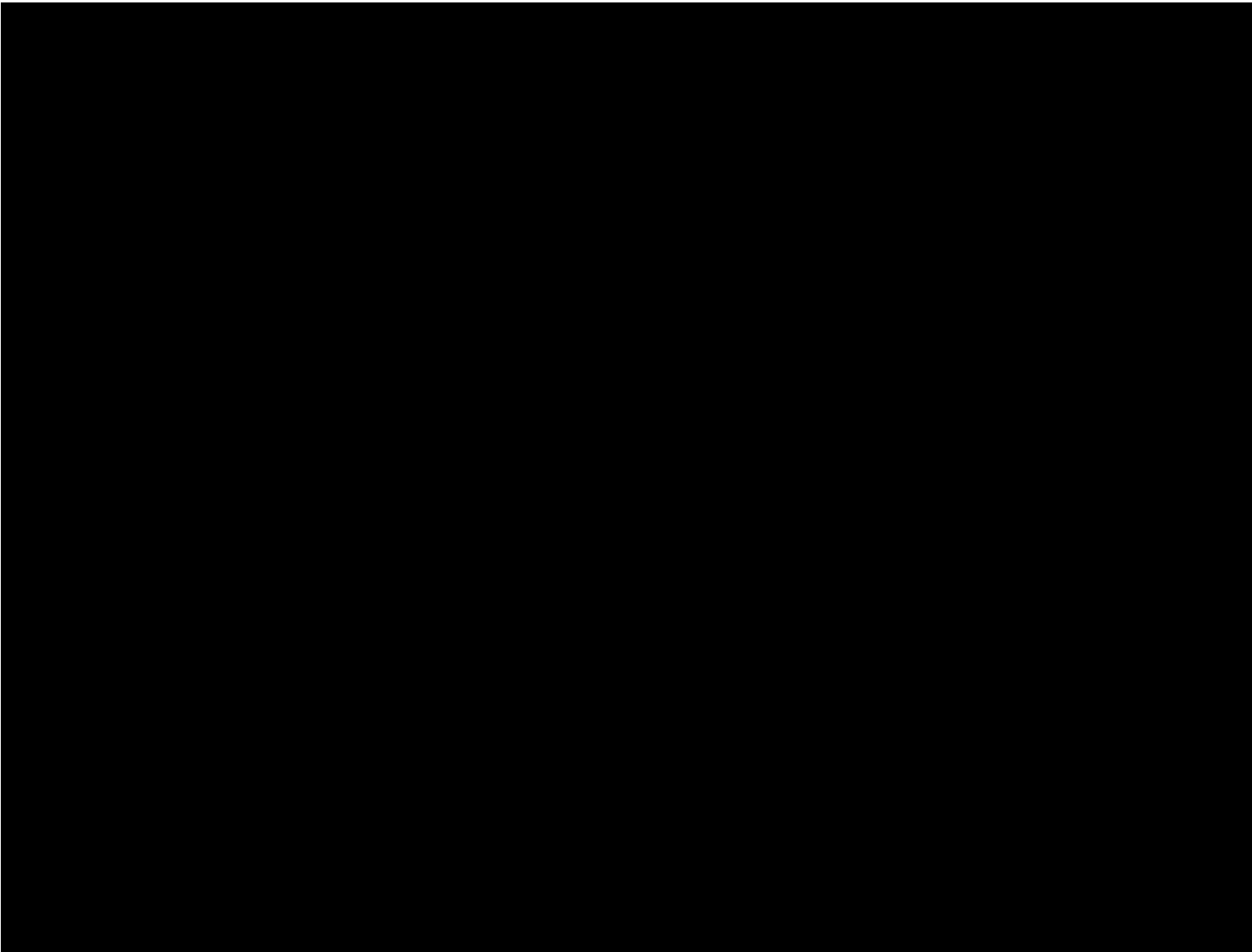
Make sure you receive our emails by adding stakeholderoutreach@socalgas.com to your address book. Please do not reply to this email. Email sent to this address cannot be answered. For assistance, please visit our [Help Center](#). Southern California Gas Company values your privacy. For more information, view our [Privacy Center](#) and [Privacy Notice](#).

This email has been sent to katherine.ramsey@sierraclub.org. If you'd rather not receive emails like this, you can opt out by emailing stakeholderoutreach@socalgas.com. Sender's business address is 555 West Fifth Street, GT20B2, Los Angeles, CA 90013.

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22007017

Exhibit B



From: Shana Lazerow <slazerow@cbecal.org>
Sent: Monday, February 27, 2023 1:22 PM
To: Buffa, Nikki (OC-DC) <Nikki.Buffa@lw.com>
Cc: FLopez5@socalgas.com
Subject: CBE / Angeles Link PAG

Hi Nikki

It's my understanding that invitations to the Angeles Link PAG have gone out for a March 15 kickoff meeting. Nobody at CBE or CEJA has let me know that they've received any communication about it. I don't know that CBE or any CEJA groups will want to be on the PAG, but I'm curious whether you know anything about SCG's outreach strategy, given that CEJA was the EJ voice in the proceeding. Thanks in advance for any insights you can share.

Shana Lazerow (*she/her/hers*)
Legal Director
Communities for a Better Environment
340 Marina Way
Richmond, CA 94801

(510) 302-0430 x 118

The information contained herein is confidential and may be privileged as an attorney-client communication. It is intended only for the individual or entity to whom it is addressed. If you are not the intended recipient, you are hereby notified that any use of this communication is strictly prohibited.

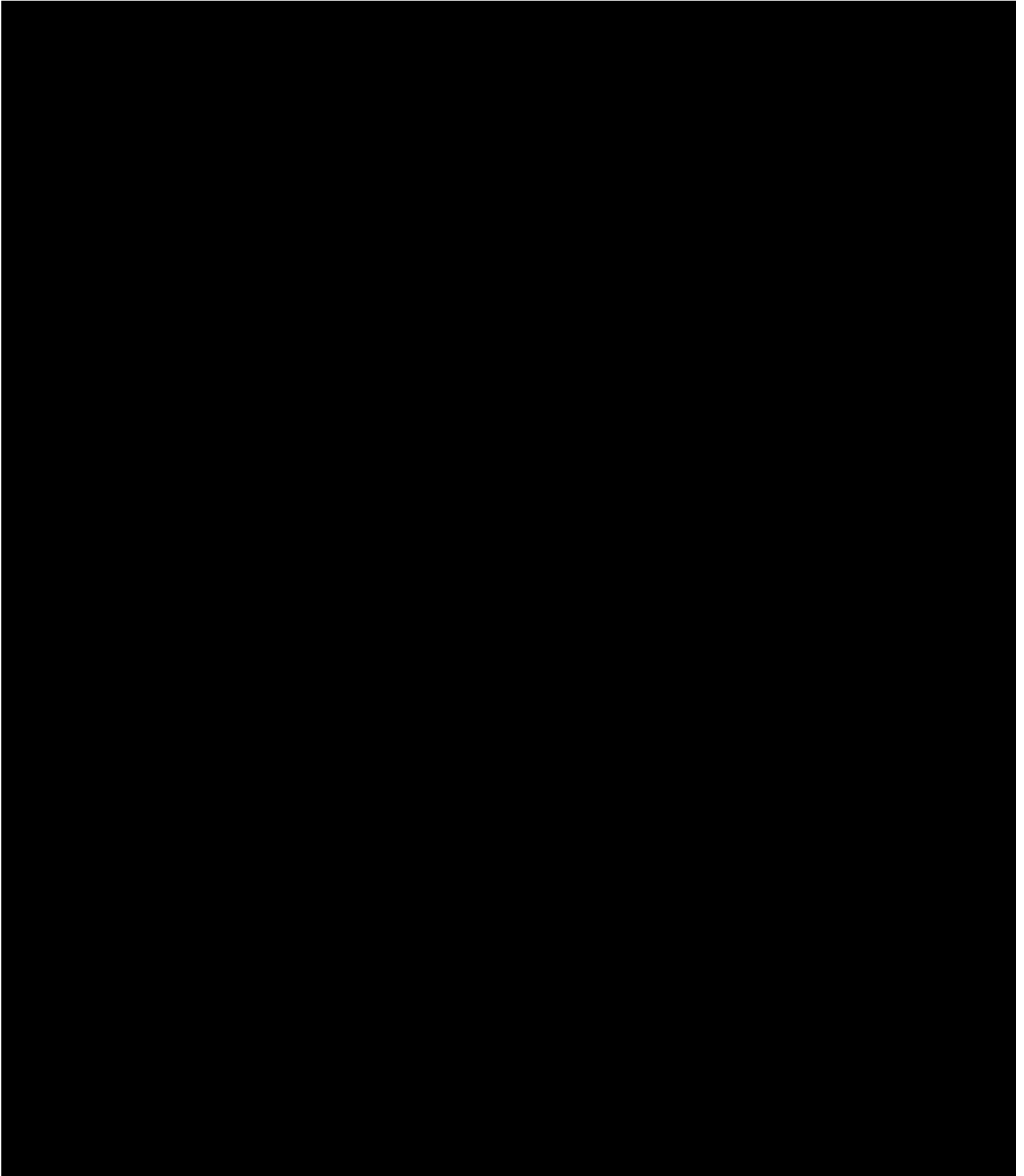


Exhibit C



ANGELES LINK

February 27, 2023

Dear Shana Lazerow:

I am writing to personally invite you to participate in SoCalGas' [Angeles Link](#) Planning Advisory Group (PAG) to provide input on a proposed clean renewable hydrogen pipeline system that could deliver safe, clean renewable, reliable energy to the Los Angeles region. SoCalGas created the PAG to collaborate on project design, share technical advice, and collect needed feedback from stakeholders.

SoCalGas received [approval](#) from the California Public Utilities Commission (CPUC) on December 16, 2022, to track costs for advancing the first phase of this important endeavor, and we are seeking your critical input as we work to support California's goal of a net zero future.

The PAG will comprise a broad and diverse group of stakeholders (e.g., government entities, environmental justice nonprofits, environmental nonprofits, labor groups, industry, academia, and rate payer advocates) and parties to the Angeles Link proceeding, each with a unique set of perspectives and experience.

The PAG will meet quarterly starting with our virtual kick-off meeting on March 15, 2023, from 9:30am to 12:00pm. The estimated time commitment would be no greater than four hours per meeting and we are planning to have both in-person and virtual meetings.

As a PAG participant, you will provide input to SoCalGas, on an advisory basis, regarding clean renewable hydrogen market information, technical aspects of project design and development, and environmental and environmental justice issues. Your careful consideration of this invite-only opportunity is greatly appreciated. If you are unable to participate directly, we would appreciate your assistance in identifying and delegating this membership to a senior level staff person in your organization who can be an effective participant for the PAG.

Please respond to this invitation directly via email at stakeholderoutreach@socalgas.com. For any questions you may have, contact our Angeles Link Senior Public Affairs Manager Emily Grant at (714) 388-4889 or egrant1@socalgas.com. We are also receiving PAG facilitation support from Chester Britt of Arellano Associates who will contact you directly to confirm your participation and answer questions you may have.

Thank you for your consideration of this opportunity.

Sincerely,

A handwritten signature in black ink, appearing to read "Maryam", with a stylized, flowing script.

Maryam Brown
President, SoCalGas

Exhibit D

Theo Caretto

From: Parker, Wayne <Wayne.Parker@cpuc.ca.gov>
Sent: Tuesday, February 28, 2023 4:07 PM
To: Marna Anning; Carman, Teresa A; Hovsepien, Melissa A; Norman Pedersen; Malinda@ProtectOurCommunities.org; jazzell2@yahoo.com; Rachael E. Koss; Marcel Hawiger; Borgeson, Merrian; Seth.Hilton@Stoel.com; BCragg@DowneyBrand.com; NSheriff@Buchalter.com; NSheriff@Buchalter.com; beth@emk-law.com; HGolub@BBKlaw.com; IYan@msh.law; JJDavis@msh.law; Katherine.Ramsey@SierraClub.org; nconnell@ghcoalition.org; Shana Lazerow; Brady.VanEngelen@BloomEnergy.com; CReed@CharlesEReed.com; ATrowbridge@DayCarterMurphy.com; christa.lim@shell.com; Theo Caretto; tyson@cleanstrat.com; ja@verticalresearchpartners.com; ekaboli@earthjustice.org; kirby.bosley@edftrading.com; Paul.Gendron@edftrading.com; Eric.Hill@ladwp.com; marlon.santacruz@LADWP.com; Priscila.Kasha@ladwp.com; Patel, Avisha A; Moreno, Edith1; Healy, Gregory; Egan, Jason W; Mock, Joseph; Silva, Megan E; Clorfeine, Sabina B.; Mortazavi, Setareh; asdf sadfs; DFrommer@AkinGump.com; iaguiar@hanmor.com; rothenergy@sbcglobal.net; Tracy, Jill; Ernie.Shaw@Yahoo.com; Klatt@EnergyAttorney.com; tdaquila@cityofpasadena.net; Charles Read; Douglass@EnergyAttorney.com; cchwang@burbankca.gov; HPandey@ci.burbank.ca.us; JoeJMoreno@uwua132.org; Case.Admin@sce.com; Claire.Torchia@sce.com; Case.Admin@sce.com; Ryan.Jerman@sce.com; Liddell@EnergyAttorney.com; Central Files; McCall, Brian (OC); Casey.Kirk@lw.com; Schneider, Janice (DC); Jennifer Roy; Joshua Bledsoe; karin.sanders@lw.com; Natalie Rogers (SD); Buffa, Nikki (OC-DC); Todd.Campbell@CleanEnergyFuels.com; SFitzsimon@CaliforniaHydrogen.org; MSeville@AdamsBroadwell.com; Younes, Amin; ats@cpuc.ca.gov; Lukins, Chloe; Myers, Christopher; Hodel, Drew; Lau, Elaine; Chang, Jack; Ormond, Jamie; Peterson, Kaj; Hieta, Karin M.; Taul, Matthew; sg8@cpuc.ca.gov; Logan, Scott; Simon, Sean A.; George, Simi R.; Gariffo, Thomas; zap@cpuc.ca.gov; de Lamare, Julia; RFakhry@nrdc.org; cparker@buchalter.com; Joon Seong; Michael Colvin; LRafii@Buchalter.com; KatieJorrie@dwt.com; monicamolina@dwt.com; PatrickFerguson@dwt.com; DWTcpucDockets@dwt.com; AVCrawford@AkinGump.com; Catherine Yap; Leah.Bahramipour@sierraclub.org; cesa_Regulatory@StorageAlliance.org; cbermel@politico.com; julee@ppallc.com; MBoccadoro@WestCoastAdvisors.com; RL@eslawfirm.com; MCade@Buchalter.com
Cc: Grant, Emily; Khan, Vageha; Lopez, Frank; Lorenz, Megan
Subject: RE: [EXTERNAL] Re: A.22-02-007 Angeles Link - Angeles Link Planning Advisory Group (PAG)

Good afternoon,

Please note that Cal Advocates also did not receive the PAG invitation e-mail. Please resend a copy of that email to Cal Advocates' members listed on the service list as soon as practicable. Thank you.

Wayne A. Parker
California Public Utilities Commission
Legal Division
300 Capitol Mall
Sacramento, CA 95814
Direct Line: (916) 823-4772 (ext 31-54772)
Mobile: (917) 405-4401

From: Marna Anning <mpanning@turn.org>

Sent: Tuesday, February 28, 2023 3:38 PM

To: Carman, Teresa A <TCarman@socalgas.com>; Hovsepian, Melissa A <MHovsepian@socalgas.com>; Norman Pedersen <npedersen@hanmor.com>; Malinda@ProtectOurCommunities.org; jazzell2@yahoo.com; Rachael E. Koss <rkoss@adamsbroadwell.com>; Marcel Hawiger <marcel@turn.org>; Borgeson, Merrian <mborgeson@nrdc.org>; Seth.Hilton@Stoel.com; BCragg@DowneyBrand.com; NSheriff@Buchalter.com; NSheriff@Buchalter.com; beth@emk-law.com; HGolub@BBKlaw.com; IYan@msh.law; JJDavis@msh.law; Katherine.Ramsey@SierraClub.org; nconnell@ghcoalition.org; SLazerow@CBecal.org; Brady.VanEngelen@BloomEnergy.com; CReed@CharlesEReed.com; Parker, Wayne <Wayne.Parker@cpuc.ca.gov>; ATrowbridge@DayCarterMurphy.com; christa.lim@shell.com; theodore@cbecal.org; tyson@cleanstrat.com; ja@verticalresearchpartners.com; ekaboli@earthjustice.org; kirby.bosley@edftrading.com; Paul.Gendron@edftrading.com; Eric.Hill@ladwp.com; marlon.santacruz@LADWP.com; Priscila.Kasha@ladwp.com; Patel, Avisha A <APatel@socalgas.com>; Moreno, Edith1 <EMoreno5@semprautilities.com>; Healy, Gregory <GHealy@socalgas.com>; Egan, Jason W <JEgan@socalgas.com>; Mock, Joseph <JMock@socalgas.com>; Silva, Megan E <MSilva@socalgas.com>; Clorfeine, Sabina B. <SClorfeine@socalgas.com>; Mortazavi, Setareh <SMortazavi@socalgas.com>; asdf sadfs <sgersen@earthjustice.org>; DFrommer@AkinGump.com; iaguiar@hanmor.com; rothenenergy@sbcglobal.net; Tracy, Jill <JTracy@socalgas.com>; Ernie.Shaw@Yahoo.com; Klatt@EnergyAttorney.com; tdaquila@cityofpasadena.net; Charles Read <charles.read@charlesreadlaw.com>; Douglass@EnergyAttorney.com; cchwang@burbankca.gov; HPandey@ci.burbank.ca.us; JoeJMoreno@uwua132.org; Case.Admin@sce.com; Claire.Torchia@sce.com; Case.Admin@sce.com; Ryan.Jerman@sce.com; Liddell@EnergyAttorney.com; Central Files <CentralFiles@semprautilities.com>; McCall, Brian (OC) <Brian.McCall@lw.com>; Casey.Kirk@lw.com; Schneider, Janice (DC) <janice.schneider@lw.com>; Jennifer Roy <jennifer.roy@lw.com>; Joshua Bledsoe <joshua.bledsoe@lw.com>; karin.sanders@lw.com; Natalie Rogers (SD) <Natalie.Rogers@lw.com>; Buffa, Nikki (OC-DC) <Nikki.Buffa@lw.com>; Todd.Campbell@CleanEnergyFuels.com; SFitzsimon@CaliforniaHydrogen.org; MSeville@AdamsBroadwell.com; Younes, Amin <Amin.Younes@cpuc.ca.gov>; ats@cpuc.ca.gov; Lukins, Chloe <chloe.lukins@cpuc.ca.gov>; Myers, Christopher <christopher.myers@cpuc.ca.gov>; Hodel, Drew <Drew.Hodel@cpuc.ca.gov>; Lau, Elaine <elaine.lau@cpuc.ca.gov>; Chang, Jack <Jack.Chang@cpuc.ca.gov>; Ormond, Jamie <Jamie.Ormond@cpuc.ca.gov>; Peterson, Kaj <Kaj.Peterson@cpuc.ca.gov>; Hieta, Karin M. <karin.hieta@cpuc.ca.gov>; Taul, Matthew <Matthew.Taul@cpuc.ca.gov>; sg8@cpuc.ca.gov; Logan, Scott <scott.logan@cpuc.ca.gov>; Simon, Sean A. <sean.simon@cpuc.ca.gov>; George, Simi R. <Simi.George@cpuc.ca.gov>; Gariffo, Thomas <Thomas.Gariffo@cpuc.ca.gov>; zap@cpuc.ca.gov; de Lamare, Julia <JdeLamare@nrdc.org>; RFakhry@nrdc.org; cparker@buchalter.com; Joon Seong <jseong@edf.org>; Michael Colvin <mcolvin@edf.org>; LRafii@Buchalter.com; KatieJorrie@dwt.com; monicamolina@dwt.com; PatrickFerguson@dwt.com; DWTcpucDockets@dwt.com; AVCrawford@AkinGump.com; Catherine Yap <cathy@barkovichandyap.com>; Leah.Bahramipour@sierraclub.org; cesa_Regulatory@StorageAlliance.org; cbermel@politico.com; julee@ppallc.com; MBoccadoro@WestCoastAdvisors.com; RL@eslawfirm.com; MCade@Buchalter.com

Cc: Grant, Emily <EGrant1@socalgas.com>; Khan, Vageha <VKhan@socalgas.com>; Lopez, Frank <FLopez5@socalgas.com>; Lorenz, Megan <mlorenz@socalgas.com>

Subject: [EXTERNAL] Re: A.22-02-007 Angeles Link - Angeles Link Planning Advisory Group (PAG)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good evening,

TURN did not receive the PAG invitation by email. Please resend.

Thanks, Marna

Marna Paintsil Anning (*she, her, hers*)
Energy & Climate Attorney

The Utility Reform Network (TURN)

From: Carman, Teresa A <TCarman@socalgas.com>

Sent: Tuesday, February 28, 2023 9:17 AM

To: Hovsepian, Melissa A <MHovsepian@socalgas.com>; Norman Pedersen <npedersen@hanmor.com>;
Malinda@ProtectOurCommunities.org <Malinda@ProtectOurCommunities.org>; jazzell2@yahoo.com
<jazzell2@yahoo.com>; Rachael E. Koss <rkoss@adamsbroadwell.com>; Marcel Hawiger <marcel@turn.org>; Borgeson,
Merrian <mborgeson@nrdc.org>; Seth.Hilton@Stoel.com <Seth.Hilton@Stoel.com>; BCragg@DowneyBrand.com
<BCragg@DowneyBrand.com>; NSheriff@Buchalter.com <NSheriff@Buchalter.com>; NSheriff@Buchalter.com
<NSheriff@Buchalter.com>; beth@emk-law.com <beth@emk-law.com>; HGolub@BBKlaw.com
<HGolub@BBKlaw.com>; IYan@msh.law <IYan@msh.law>; JJDavis@msh.law <JJDavis@msh.law>;
Katherine.Ramsey@SierraClub.org <Katherine.Ramsey@SierraClub.org>; nconnell@ghcoalition.org
<nconnell@ghcoalition.org>; SLazerow@CBecal.org <SLazerow@CBecal.org>; Brady.VanEngelen@BloomEnergy.com
<Brady.VanEngelen@BloomEnergy.com>; CReed@CharlesEReed.com <CReed@CharlesEReed.com>; wyk@cpuc.ca.gov
<wyk@cpuc.ca.gov>; ATrowbridge@DayCarterMurphy.com <ATrowbridge@DayCarterMurphy.com>;
christa.lim@shell.com <christa.lim@shell.com>; theodore@cbecal.org <theodore@cbecal.org>; tyson@cleanstrat.com
<tyson@cleanstrat.com>; ja@verticalresearchpartners.com <ja@verticalresearchpartners.com>;
ekaboli@earthjustice.org <ekaboli@earthjustice.org>; kirby.bosley@edftrading.com <kirby.bosley@edftrading.com>;
Paul.Gendron@edftrading.com <Paul.Gendron@edftrading.com>; Eric.Hill@ladwp.com <Eric.Hill@ladwp.com>;
marlon.santacruz@LADWP.com <marlon.santacruz@LADWP.com>; Priscila.Kasha@ladwp.com
<Priscila.Kasha@ladwp.com>; Patel, Avisha A <APatel@socalgas.com>; Moreno, Edith1
<EMoreno5@semprautilities.com>; Healy, Gregory <GHealy@socalgas.com>; Egan, Jason W <JEgan@socalgas.com>;
Mock, Joseph <JMock@socalgas.com>; Silva, Megan E <MSilva@socalgas.com>; Clorfeine, Sabina B.
<SClorfeine@socalgas.com>; Mortazavi, Setareh <SMortazavi@socalgas.com>; Carman, Teresa A
<TCarman@socalgas.com>; asdf sadfs <sgersen@earthjustice.org>; DFrommer@AkinGump.com
<DFrommer@AkinGump.com>; iaguiar@hanmor.com <iaguiar@hanmor.com>; rothenergy@sbcglobal.net
<rothenergy@sbcglobal.net>; Tracy, Jill <JTracy@socalgas.com>; Ernie.Shaw@Yahoo.com <Ernie.Shaw@Yahoo.com>;
Klatt@EnergyAttorney.com <Klatt@EnergyAttorney.com>; tdaquila@cityofpasadena.net
<tdaquila@cityofpasadena.net>; Charles Read <charles.read@charlesreadlaw.com>; Douglass@EnergyAttorney.com
<Douglass@EnergyAttorney.com>; cchwang@burbankca.gov <cchwang@burbankca.gov>; HPandey@ci.burbank.ca.us
<HPandey@ci.burbank.ca.us>; JoeJMoreno@uwua132.org <JoeJMoreno@uwua132.org>; Case.Admin@sce.com
<Case.Admin@sce.com>; Claire.Torchia@sce.com <Claire.Torchia@sce.com>; case.admin@sce.com
<case.admin@sce.com>; Ryan.Jerman@sce.com <Ryan.Jerman@sce.com>; Liddell@EnergyAttorney.com
<Liddell@EnergyAttorney.com>; Central Files <CentralFiles@semprautilities.com>; McCall, Brian (OC)
<Brian.McCall@lw.com>; Casey.Kirk@lw.com <Casey.Kirk@lw.com>; Schneider, Janice (DC) <janice.schneider@lw.com>;
Jennifer Roy <jennifer.roy@lw.com>; Joshua Bledsoe <joshua.bledsoe@lw.com>; karin.sanders@lw.com
<Karin.Sanders@lw.com>; Natalie Rogers (SD) <Natalie.Rogers@lw.com>; Buffa, Nikki (OC-DC) <Nikki.Buffa@lw.com>;
Todd.Campbell@CleanEnergyFuels.com <Todd.Campbell@CleanEnergyFuels.com>; SFitzsimon@CaliforniaHydrogen.org
<SFitzsimon@CaliforniaHydrogen.org>; MSeville@AdamsBroadwell.com <MSeville@AdamsBroadwell.com>;
ayu@cpuc.ca.gov <ayu@cpuc.ca.gov>; ats@cpuc.ca.gov <ats@cpuc.ca.gov>; clu@cpuc.ca.gov <clu@cpuc.ca.gov>;
cg2@cpuc.ca.gov <cg2@cpuc.ca.gov>; dhl@cpuc.ca.gov <dhl@cpuc.ca.gov>; ec2@cpuc.ca.gov <ec2@cpuc.ca.gov>;
cja@cpuc.ca.gov <cja@cpuc.ca.gov>; jo2@cpuc.ca.gov <jo2@cpuc.ca.gov>; kjp@cpuc.ca.gov <kjp@cpuc.ca.gov>;
kar@cpuc.ca.gov <kar@cpuc.ca.gov>; mta@cpuc.ca.gov <mta@cpuc.ca.gov>; sg8@cpuc.ca.gov <sg8@cpuc.ca.gov>;
sjl@cpuc.ca.gov <sjl@cpuc.ca.gov>; svn@cpuc.ca.gov <svn@cpuc.ca.gov>; srg@cpuc.ca.gov <srg@cpuc.ca.gov>;
tg3@cpuc.ca.gov <tg3@cpuc.ca.gov>; zap@cpuc.ca.gov <zap@cpuc.ca.gov>; Marna Anning <mpanning@turn.org>; de
Lamare, Julia <JdeLamare@nrdc.org>; RFakhry@nrdc.org <RFakhry@nrdc.org>; cparker@buchalter.com
<cparker@buchalter.com>; Joon Seong <jseong@edf.org>; Michael Colvin <mcolvin@edf.org>; LRafii@Buchalter.com
<LRafii@Buchalter.com>; KatieJorrie@dwt.com <KatieJorrie@dwt.com>; monicamolina@dwt.com
<monicamolina@dwt.com>; PatrickFerguson@dwt.com <PatrickFerguson@dwt.com>; DWTcpucDockets@dwt.com

<DWTcpucDockets@dwt.com>; AVCrawford@AkinGump.com <AVCrawford@AkinGump.com>; Catherine Yap <cathy@barkovichandyap.com>; Leah.Bahramipour@sierraclub.org <Leah.Bahramipour@sierraclub.org>; cesa_Regulatory@StorageAlliance.org <cesa_Regulatory@StorageAlliance.org>; cbermel@politico.com <cbermel@politico.com>; julee@ppallc.com <julee@ppallc.com>; MBoccadoro@WestCoastAdvisors.com <MBoccadoro@WestCoastAdvisors.com>; RL@eslawfirm.com <RL@eslawfirm.com>; MCade@Buchalter.com <MCade@Buchalter.com>

Cc: Grant, Emily <EGrant1@socalgas.com>; Khan, Vageha <VKhan@socalgas.com>; Lopez, Frank <FLopez5@socalgas.com>; Lorenz, Megan <mlorenz@socalgas.com>

Subject: A.22-02-007 Angeles Link - Angeles Link Planning Advisory Group (PAG)

To the service list for CPUC proceeding A.22-02-007,

Last week, each Party of Service List for A.22-02-007 received an invitation to participate in the Angeles Link Planning Advisory Group (PAG).

The PAG will include a broad and diverse group of stakeholders and parties to the Angeles Link proceeding, each with a unique set of perspectives and experience. The PAG will meet on a quarterly basis starting with our **virtual kick-off meeting on March 15, 2023, from 9:30 am to 12:00 pm** and will continue with a regular sequence of quarterly meetings.

The invitation to participate in the PAG was delivered to contacts for parties by email from SoCalGas. If your client did not receive the invitation, please contact stakeholderoutreach@socalgas.com or Emily Grant at (714) 388-4889 or egrant1@socalgas.com immediately.

Terri Carman
Senior Legal Administrative Associate
Southern California Gas Company / Law Department
555 West Fifth Street, GT-14E7
Los Angeles, CA 90013
Ph: [213.244.2967](tel:213.244.2967); MS Teams: [213.231.6338](tel:213.231.6338)
Fax: [213.629.9620](tel:213.629.9620)
Email: tcarman@socalgas.com

Exhibit E

Theo Caretto

From: Sylvia Arredondo
Sent: Thursday, March 9, 2023 4:47 PM
To: CBE Policy Team; Wilmington Team
Subject: Fw: Invitation to Serve on SoCalGas' Angeles Link CBO Stakeholder Group

I don't remember where we landed on this- Does someone want to follow up?

COMMUNITIES
FOR A BETTER
ENVIRONMENT
established 1978



Sylvia Arredondo, she/her/hers
Civic Engagement Director
Communities for a Better Environment
and
CBE Action, a project of Tides Advocacy
(C):310-971-6868 | (O): 323-826-9771x113
[Donate](#) to support frontline organizing!
Become a [member](#) to build political
power of frontline communities!

From: Alyssa Martinez <amartinez@leeandrewsgroup.com>
Sent: Thursday, March 9, 2023 4:17 PM
To: Sylvia Arredondo <sylvia@cbeocal.org>
Cc: Alma Marquez <almarquez@leeandrewsgroup.com>
Subject: Invitation to Serve on SoCalGas' Angeles Link CBO Stakeholder Group

Hi Sylvia,

It was great talking with you earlier today.

Here is the invitation for you to forward to the person on your team who can attend the meeting next Thursday on March 16th from 9:30am-12pm.

You can RSVP directly to the email provided in the invitation or you can email me back or call me at (562) 315-6754 to confirm your participation.

I look forward to CBE's participation.

Thank you,
Alyssa



Dear Communities for a Better Environment:

I am writing to personally invite you to participate in SoCalGas' [Angeles Link](#) Community-Based Organization (CBO) Stakeholder Group. The purpose of this group is to create opportunities for feedback on, and information sharing regarding, a proposed clean renewable hydrogen pipeline system that could deliver safe, clean renewable, reliable energy to the Los Angeles region.

SoCalGas received [approval](#) from the California Public Utilities Commission (CPUC) on December 16, 2022, to track costs for advancing the first phase of this important endeavor, and we are seeking your assistance as we work to support California's goal of a net zero future.

The CBO Stakeholder Group will comprise a broad and diverse group of CBOs, each with a unique set of perspectives and experience. SoCalGas would welcome both participation from organizations that have a history of engaging in hydrogen and other energy infrastructure proposals or organizations that represent disadvantaged communities in the Los Angeles Basin but have not traditionally been engaged in such proposals. These organizations include, but are not limited to: environmental and social justice organizations, faith-based organizations, affordable housing providers, health care providers, tribal communities, and organizations that serve disadvantaged youth, each to identify and address any potential impacts the project may have on their respective communities.

A virtual kick-off meeting will be held on March 16, 2023, from 9:30am to 12:00pm where CBOs will have the opportunity to learn more about Angeles Link and how they can be part of the CBO Stakeholder Group. CBO Stakeholder Group participants will be expected to meet on a quarterly basis and will be eligible for a \$500 stipend per meeting (final amount compensated is subject to CPUC approval). The estimated time commitment would be no greater than four hours per meeting and we are planning to have both in-person and virtual meetings. Translation services will be available.

Your careful consideration of this invite-only opportunity is greatly appreciated. If you are unable to participate directly, we would appreciate your assistance in identifying and delegating this membership to a senior level staff person in

your organization who can be an effective participant in the CBO Stakeholder Group.

Please respond to this invitation directly via email at stakeholderoutreach@socalgas.com. For any questions, contact our Angeles Link Senior Public Affairs Manager Emily Grant at (714) 388-4889 or egrant1@socalgas.com. We are also receiving CBO Stakeholder Group facilitation support from Alma Marquez of Lee Andrews Group who will contact you directly to confirm your participation and answer questions you may have.

Thank you for your consideration of this opportunity.

Sincerely,



Maryam Brown
President, SoCalGas



Alyssa Martinez | Public Affairs Fellow

Lee Andrews Group, Inc.

700 S. Flower Street, Suite 1275

Los Angeles, CA 90017

Office: 213.891.2965 | Ext. 102

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Please consider the environment before printing this e-mail.

Exhibit F

Energy Division Central Files Document Coversheet

A. Document Name

Today's Date (Date of Submittal) 05/09/2023

Name:

1. Utility Name: Southern California Gas Company (SoCalGas)
2. Document Submission Frequency: Quarterly
3. Report Name: Angeles Link Report
4. Reporting Interval (the date(s) covered by the data): 2023 Q1
5. Name Suffix: Phs 1
6. Document File Name (format as 1 + 2 + 3 + 4 + 5): SoCalGas Quarterly Angeles Link Report 2023 Q1 Phs 1
7. Identify whether this submittal is ☒original or ☐revision to a previous submittal.
 - a. If revision, identify date of the original submittal: N/A

B. Documents Related to a Proceeding

All submittals should reference both a proceeding and a decision, if applicable. If not applicable, leave blank and fill out Section C.

1. Proceeding Number (starts with R, I, C, A, or P plus 7 numbers): A.22-02-007
2. Decision Number (starts with D plus 7 numbers): D.22-12-055
3. Ordering Paragraph (OP) Number from the decision: OP3h

C. Documents Submitted as Requested by Other Requirements

If the document submitted is in compliance with something other than a proceeding, (e.g., Resolution, Ruling, Staff Letter, Public Utilities Code, or sender's own motion), please explain: N/A

D. Document Summary

Provide a Document Summary that explains why this report is being submitted to the Energy Division. This information is often contained in the cover letter, introduction, or executive summary, so you may want to copy it from there and paste it here.

To increase transparency and gain valuable feedback in its Memorandum Account Application for Angeles Link, SoCalGas proposed to submit interim reports to the CPUC and the public regarding Project status and updates. Pursuant to Ordering Paragraph (OP) 3 (h) of D.22-12-055, SoCalGas hereby submits this Quarterly Report.

E. Sender Contact Information

1. Sender Name: Gary Lenart
2. Sender Organization: SoCalGas
3. Sender Phone: (213) 244-2424
4. Sender Email: Tariffs@SoCalGas.com

F. Confidentiality

1. Is this document confidential? ☒No ☐Yes
 - a. If Yes, provide an explanation of why confidentiality is claimed and identify the expiration of the confidentiality designation (e.g., Confidential until December 31, 2020).

G. CPUC Routing

Energy Division Central Files Document Coversheet

Energy Division's Deputy Executive Director for Energy and Climate Policy, Leuwam Tesfai, requests that you not copy her on submittals sent to Energy Division Central Files. Identify below any Commission staff that were copied on the submittal of this document.

1. Names of Commission staff that sender copied on the submittal of this Document: Bruce Kaneshiro, Nicholas Zanjani.



Joseph Mock
Director
Regulatory Affairs

555 W. Fifth Street, GT14D6
Los Angeles, CA 90013-1011
Tel: 213.244.3718
Fax: 213.244.4957
JMock@socalgas.com

May 9, 2023

Leuwam Tesfai
Deputy Executive Director for Energy and Climate Policy
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Subject: SoCalGas' Angeles Link Quarterly Report (Phase One)

Dear Deputy Executive Director:

In accordance with Ordering Paragraph 3(h) of Decision 22-12-055 SoCalGas hereby submits to the Commission's Deputy Executive Director for Energy and Climate Policy the Angeles Link Project Phase One Quarterly Report (Report).

A copy of the Report along with the Report appendices are publicly available at:
<https://www.socalgas.com/sustainability/hydrogen/angeles-link>

The Angeles Link Memorandum Account Application Service List (A.22-02-007) is copied in this submittal.

Sincerely,

/s/ Joseph Mock
Joseph Mock
Director – Regulatory Affairs

Attachment

cc: Rachel Peterson , CPUC
Bruce Kaneshiro, CPUC
Nicholas Zanjani, CPUC
Service List (A.22-02-007)



Angeles Link Quarterly Report (Phase One)

For the Period December 21, 2022 through March 31, 2023

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I. BACKGROUND

On December 15, 2022, the California Public Utilities Commission (CPUC) adopted Decision 22-12-055 (Decision) authorizing the establishment of SoCalGas's Angeles Link Memorandum Account (Memorandum Account) to track costs for advancing the first phase of the Angeles Link Project (Project). SoCalGas established the Memorandum Account on December 21, 2022.

The objective of the proposed Project is to develop a clean renewable hydrogen pipeline transport system to deliver reliable renewable energy to the Los Angeles region. The CPUC recognized clean renewable hydrogen¹ "has the potential to decarbonize the state and the Los Angeles Basin's energy future and bring economic opportunities and new jobs to the region."²

To increase transparency and gain valuable feedback in its Memorandum Account Application for Angeles Link, SoCalGas proposed to submit interim reports to the CPUC and the public regarding Project status and updates. Pursuant to Ordering Paragraph (OP) 3 (h) of the Decision,³ SoCalGas hereby submits this Quarterly Report for the period of December 21, 2022, through March 31, 2023 (Q1-2023). In compliance with the Decision, this report is also being served on the service list for the Angeles Link proceeding (A.22-02-007) and will be made publicly available at: <https://www.socalgas.com/sustainability/hydrogen/angeles-link>.

¹ Per the CPUC Final Decision (D.22-12-055), "clean renewable hydrogen" is defined as hydrogen produced with a carbon intensity equal to or less than four kilograms of carbon dioxide-equivalent produced on a lifecycle basis per kilogram and does not use any fossil fuel in its production process. For the purpose of this project, we are using the terms "green hydrogen" and "clean renewable hydrogen" interchangeably.

² Decision (D.) 22-12-055, p. 2

³ Ibid.

II. PHASE ONE ACTIVITIES UPDATE

The Decision requires SoCalGas to submit Quarterly Reports to the Commission's Deputy Executive Director for Energy and Climate Policy on the progress of the Phase One feasibility studies and the Project and to report any preliminary results and findings. SoCalGas is required to make the Quarterly Reports public and include in them feedback received from parties and PAG members. To ensure the Project delivers clean energy benefits and aligns with the Commission's public policy goals, the CPUC set additional project-specific standards in the Decision that SoCalGas must demonstrate, at a minimum, to receive recovery of Phase One costs recorded in the Memorandum Account.⁴ These project-specific cost recovery standards are meant to address affordability, impacts to disadvantaged communities, consistency with California law and public policies, stakeholder concerns, and consideration and evaluation of Project alternatives.⁵ In authorizing the studies discussed in this report, the Decision recognized that "clean renewable hydrogen is a key potential solution to decarbonize the state's and the Los Angeles Basin's energy use"⁶ and "is one of the only few viable carbon-free energy alternatives for hard-to-electrify industries, electric generation, and the heavy-duty sector."⁷ As such, the Project is required to balance multiple public policy priorities, including affordability,⁸ environmental justice,⁹ public interest benefits, support for California's environmental law and public policies¹⁰ (including CPUC decisions, policies and directives¹¹ and aligning with federal clean renewable hydrogen standards¹²) addressing climate change, reducing greenhouse gas emissions, prioritizing safety, and enhancing energy system reliability.

The following studies are being undertaken in compliance with the Decision, in furtherance of the Project, and in alignment with the additional project-specific standards adopted by the CPUC.

⁴ D. 22-12-055, p. 75, OP 5.

⁵ Ibid.

⁶ D. 22-12-055, p. 28.

⁷ Ibid.

⁸ D. 22-12-055, p. 76, OP 6 (k)

⁹ D. 22-12-055, p. 76, OP 6 (l)

¹⁰ D. 22-12-055, p. 77, OP 6 (n)

¹¹ D. 22-12-055, p. 77, OP 6 (o).

¹² D. 22-12-055, p. 77, OP 6 (j)

Market Assessment & Alternatives

Demand Study	
Overview	The Decision requires (OP 6 (a) and OP 6 (c)) SoCalGas to identify hydrogen demand, end uses, and end-users (including current natural gas customers and future customers) of the Project. This study will evaluate potential clean renewable hydrogen demand and assess adoption in the Mobility, Power Generation, and Industrial sectors.
Progress Summary	Over the reporting period, SoCalGas began the contracting process for a vendor to conduct this study. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedules, and budget estimates. Vendor selection, contract finalization, and initial study commencement is anticipated in the second quarter of 2023.

Production Planning & Assessment	
Overview	The Decision requires SoCalGas to identify the potential sources of hydrogen generation for the Project (OP 6 (b)) and its plans to ensure the quality of the hydrogen gas meets the clean renewable hydrogen standards set in the Decision (OP 6 (j)). This study will evaluate potential sources of clean renewable hydrogen production from renewable sources such as solar and wind, the input requirements, the estimated cost of production, and policies, procedures, and other methods to meet clean renewable hydrogen standards.
Progress Summary	Over the reporting period, SoCalGas began the contracting process for a vendor to conduct this production study. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract finalization, and initial study commencement is anticipated in the second quarter of 2023.

High-Level Economic Analysis & Cost Effectiveness	
Overview	The Decision requires (OP 6 (d)) SoCalGas to evaluate the cost-effectiveness of the Project against alternatives and determine a methodology to measure cost effectiveness between alternatives. This study will determine a methodology to measure cost effectiveness that includes gathering cost estimates, performing an economic analysis to determine the potential levelized cost of clean renewable hydrogen to be delivered to end-users, and comparing the cost effectiveness of the Project against various project alternatives.
Progress Summary	Over the reporting period, SoCalGas began the contracting process for a vendor to conduct this study. These contracting activities included identification of potential vendors and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract finalization, and initial study commencement is anticipated in the second quarter of 2023.

Project Options and Alternatives	
Overview	The Decision requires (OP 6 (d)) SoCalGas to consider and evaluate Project alternatives, including a localized hydrogen hub or other decarbonization options such as electrification. SoCalGas is also required (OP 3 (c)) to study a localized hydrogen hub solution under the specifications required to be eligible for federal funding as part of Phase One. This study will evaluate Project options and alternatives, including a localized hydrogen hub.
Progress Summary	Over the reporting period, SoCalGas began the contracting process for a vendor to conduct an initial evaluation of potential options and alternatives. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract finalization, and initial study commencement is anticipated in the second quarter of 2023.

Regulatory, Policy & Environmental

Water Resource Evaluation	
Overview	The Decision requires (OP 6 (b)) SoCalGas to identify the potential sources of clean renewable hydrogen generation and water and estimate the costs of the hydrogen for the Project. This study will evaluate the availability of water resources for clean renewable hydrogen production in Central and Southern California regions.
Progress Summary	Over the reporting period, SoCalGas identified potential vendors, engaged in preliminary discussions with vendors, and prepared a draft scope of work, tentative schedule and budget estimate. In addition, SoCalGas executed a contract with a vendor to assess the availability and scoping of water resources for the Project with a focus on sustainable sources of water including recycled water, stormwater capture, oil/gas product treatment, and water exchange. Initial study activities commenced in the reporting period.

Nitrogen Oxide (NOx) and other Air Emissions Assessment	
Overview	The Decision requires (OP 6 (h)) SoCalGas to assess potential NOx emissions associated with the Project, including appropriate controls to mitigate emissions. The NOx assessment will evaluate NOx and other air emissions associated with storage and transportation of hydrogen, as well as NOx emissions associated with end users. Key areas of focus will be on the Mobility, Power Generation, and Industrial sectors. Identification and evaluation of potential mitigation measures will also be included.
Progress Summary	Over the reporting period, SoCalGas began the process of contracting for a vendor to conduct an initial evaluation to assess potential NOx and other air emissions and appropriate controls to mitigate potential emissions. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract finalization, and initial study commencement is anticipated in the second quarter of 2023.

Hydrogen Leakage Assessment	
Overview	The Decision directs (OP 6 (g)) SoCalGas to assess the risks and mitigations for hydrogen leakage. During Phase One, an evaluation of potential hydrogen leakage associated with production, storage, and transportation of hydrogen will be prepared. Identification and evaluation of potential mitigation measures will also be included.
Progress Summary	Over the reporting period, SoCalGas began the contracting process for a vendor to conduct an initial evaluation assessing the risk of hydrogen leakage and potential mitigation opportunities. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract finalization, and initial study commencement is anticipated in the second quarter of 2023.

Greenhouse Gas Emissions Evaluation	
Overview	The Decision directs (OP 6 (n)) SoCalGas to provide the findings from Phase One feasibility studies demonstrating compliance with environmental laws and public policies. To support environmental laws and public policies, SoCalGas will conduct an initial evaluation of greenhouse gas (GHG) emissions associated with the Project, including the potential for emissions reductions. This assessment will evaluate GHG emissions associated with storage and transportation of hydrogen, as well as GHG emissions associated with end users. Key areas of focus will be on the Mobility, Power Generation, and Industrial sectors.
Progress Summary	Over the reporting period, SoCalGas began the process of contracting for a vendor to conduct an initial evaluation of potential GHG emissions associated with the Project, including the potential for emissions reductions. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract execution and initial study commencement is anticipated in the second quarter of 2023.

Environmental & Environmental Social Justice Analysis	
Overview	The Decision directs (OP 6 (n)) SoCalGas to provide the findings from Phase One feasibility studies demonstrating compliance with environmental law and public policies. Further, the Decision directs SoCalGas to address and mitigate impacts to disadvantaged communities and other environmental justice concerns (OP 6 (l)). SoCalGas will conduct an initial evaluation of a clean renewable hydrogen transportation system's compliance with environmental law and public policies, which will include an assessment of environmental impacts of project alternatives, environmental justice concerns and impacts to disadvantaged communities.
Progress Summary	During the reporting period, SoCalGas began the contracting process for a vendor to conduct this evaluation. These contracting activities included identification of potential vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Preliminary discussions with vendors are anticipated in the second quarter of 2023.

High-Level Feasibility Assessment & Permitting Analysis	
Overview	The Decision requires SoCalGas to identify and compare possible routes and configurations for the Project (OP 6 (i)). As part of this assessment, SoCalGas will conduct a high-level assessment of potential environmental and regulatory approvals, including federal, state and local environmental permitting and regulatory approvals, regulatory approval timing, and environmental constraints.
Progress Summary	Over the reporting period, SoCalGas began the contracting process for a vendor to conduct this analysis. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract execution and initial study commencement is anticipated in the second quarter of 2023.

Right-of-Way Study	
Overview	The Decision requires SoCalGas to identify and compare possible routes and configurations for the Project (OP 6 (i)). As part of this assessment, SoCalGas will conduct an initial evaluation to review the potential availability of its existing private rights-of-way to accommodate the Project and future right-of-way locations needed.
Progress Summary	Over the reporting period, SoCalGas began the process of evaluating proposed pipeline alignments for right-of-way review. These activities included preliminary identification of public rights of way.

Franchise Study	
Overview	The Decision requires SoCalGas to identify and compare possible routes and configurations for the Project (OP 6 (i)). As part of this assessment, SoCalGas will conduct an initial evaluation to review the potential availability of its existing franchises to accommodate the Project and future franchises needed for the Project.
Progress Summary	Over the reporting period, SoCalGas began the process of reviewing existing city and county franchise agreements. These activities included preliminary identification of private rights-of-way and franchise agreements.

Engineering Design

Preliminary Routing/Configuration Analysis	
Overview	The Decision requires (OP 6 (i)) SoCalGas to identify and compare possible routes and configurations for the Project. This study will (i) determine preferred routing/configuration alternatives for hydrogen system; (ii) consider existing pipeline corridors or rights-of-way, other known existing rights-of-way, franchise rights, designated federal energy corridors or rights-of-way, and the need for new rights-of-way; and (iii) evaluate technical considerations, major crossings, elevations, terrain types, and other potential geographical and urban challenges. This study includes high-level construction staging for implementation of routes and evaluation of a localized hydrogen hub. As part of the configuration analysis, SoCalGas will conduct an initial evaluation of hydrogen storage technology. SoCalGas will assess storage proximity to the Southern California region and both aboveground and underground technologies.
Progress Summary	Over the reporting period, SoCalGas began the process of evaluating potential pipeline alignments and configurations (e.g., storage). These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract execution, and initial study commencement is anticipated in the second quarter of 2023.

Pipeline Sizing & Design Criteria	
Overview	The Decision requires SoCalGas to compare possible routes and configurations (OP 6 (i)) and evaluate safety concerns for the Project (OP6 (f)). This study will: (i) estimate potential pipeline sizes for the pipeline route from production to end-use; (ii) identify specific materials for pipeline, fittings, and differences in operational equipment; (iii) discuss safety considerations, pressures, and maintenance operations associated with design; and (iv) evaluate compression characteristics and options.
Progress Summary	Over the reporting period, SoCalGas began the contracting process for a vendor to conduct this analysis. These contracting activities included identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract execution, and initial study commencement is anticipated in the second quarter of 2023.

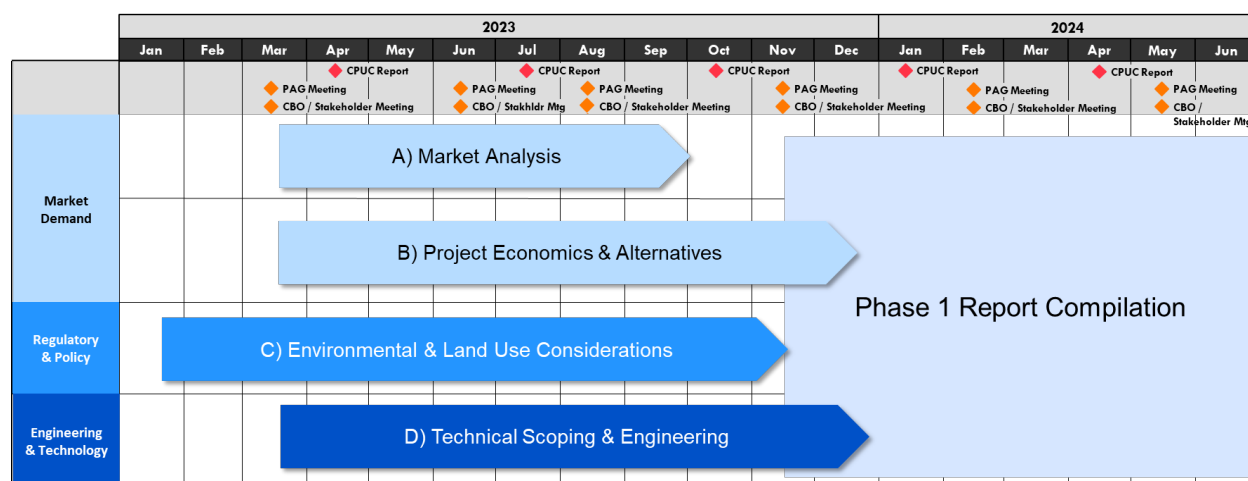
Plan for Applicable Safety Requirements	
Overview	The Decision requires (OP 6 (f)) SoCalGas to evaluate safety concerns involved in pipeline transmission, storage, and transportation of hydrogen applicable to the Project. This study will evaluate safety concerns and develop an assessment of applicable safety requirements for employee, contractor, system, and public safety.
Progress Summary	<p>Over the reporting period, SoCalGas began the contracting process for a vendor to conduct this analysis. These contracting activities included preliminary review of industry and internal safety standards, identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract execution and initial study commencement is anticipated in the second quarter of 2023.</p> <p>While a strong safety culture exists at SoCalGas today, we are committed to continuously enhancing the maturity of our culture and have implemented a comprehensive Safety Management System (SMS) consistent with American Petroleum Institute Recommended Practice 1173 (API RP 1173).</p> <p>As part of SoCalGas's comprehensive emergency readiness and response program and activities, SoCalGas works with local first responders and appropriate city officials to inform and educate them on the locations of hydrogen facilities within their response area. In addition to these activities, SoCalGas will continue to collaborate across industry leaders to further refine established safety standards and best practice for hydrogen operations.</p>

Workforce Planning & Training Evaluation	
Overview	The Decision requires (OP 6 (e)) SoCalGas to evaluate workforce planning and training. This study will evaluate operations and maintenance protocols for utility workers regarding hydrogen infrastructure and workforce needs in terms of staging and growth for the Project.
Progress Summary	<p>Over the reporting period, SoCalGas began the contracting process for a vendor to conduct this analysis. These contracting activities included preliminary discussions with internal subject matter experts on existing programs for workforce training and community outreach, identification of potential vendors, preliminary discussions with vendors, and preparation of a draft scope of work, tentative schedule, and budget estimate. Vendor selection, contract execution, and initial study commencement is anticipated in the second quarter of 2023.</p> <p>SoCalGas has a highly trained workforce and an extensive contractor network and resource pool across the organization with deep experience planning, building and maintaining pipeline infrastructure in California. Personnel associated with the construction and operation of the Angeles Link and related facilities would include the following:</p> <ul style="list-style-type: none"> • SoCalGas project personnel who would develop and manage the funding, design, permitting, right-of-way, and construction of the pipeline and pipeline facilities. • Contractors who would assist SoCalGas personnel with the design, permitting, and right-of-way activities. • Construction contractors who would build the proposed pipeline system and related facilities. • SoCalGas field operations and maintenance personnel who would operate the pipeline system and related facilities on a daily basis. • SoCalGas Supervisory Control and Data Acquisition (SCADA) personnel who would remotely monitor and operate the pipeline from the SoCalGas Operations center. • SoCalGas engineers and managers who would perform hydraulic modeling to monitor and optimize gas distribution.

III. PROJECT SCHEDULE AND KEY MILESTONES

The Preliminary Program Roadmap below identifies Phase One feasibility studies and expected feasibility study timelines, PAG meetings, Community-Based Organization Stakeholder Group (CBOSG) meetings, and Quarterly Report submission dates. The timelines below are preliminary, subject to change, and in some cases, reflect studies in progress. Additional studies will be added to future reports as they commence, and the timelines will be updated as necessary.

Figure 1
Angeles Link Phase One (Q1 2023 – Q2 2024) Preliminary Program Roadmap



IV. PLANNING ADVISORY GROUP AND COMMUNITY-BASED ORGANIZATION STAKEHOLDER GROUP ACTIVITIES

To engage and learn from a variety of stakeholders during the Angeles Link Project planning process, SoCalGas proposed forming an Angeles Link PAG in its Memorandum Account Application (Application) to engage with stakeholders to receive technical advice and collaboration on Project design and development. In alignment with the Application proposal, the Decision requires SoCalGas to engage the active parties in the proceeding via the PAG.¹³ Accordingly, SoCalGas invited the active parties in the proceeding to the PAG as well as other stakeholder groups. The Decision also requires SoCalGas to proactively identify and invite involvement from Community-Based Organizations (CBOs) that are equipped to serve the communities that will be impacted by the Project.¹⁴ SoCalGas has formed a CBOSG composed of community organizations that represent and serve populations that could be impacted by the Project. Both groups were formed in coordination with Energy Division staff. Parties invited to

¹³ D. 22-12-055 OP 8 (a), p. 78

¹⁴ D. 22-12-055 OP 8 (b), p. 78

participate in the PAG include government entities, environmental justice nonprofits, environmental nonprofits, labor groups, industry, academia, disadvantaged communities, ratepayer advocates, and parties from the Angeles Link proceeding. Parties invited to participate in the CBOSG include representatives from: disadvantaged communities (DAC), advocates for environmental and social justice (ESJ), schools, churches, and community based non-profit organizations. SoCalGas will be compensating CBOSG attendees with a per-diem stipend if not otherwise compensated through the CPUC's Intervenor Compensation Program in accordance with OP 8 (b) of the Decision.¹⁵ Arellano Associates (AA) is the facilitator for the quarterly PAG meetings. AA specializes in developing and implementing stakeholder engagement activities for large infrastructure projects. Lee Andrews Group (LAG) facilitates the CBOSG meeting. LAG specializes in working with diverse and underserved communities to increase public engagement and awareness. LAG's culturally relevant community engagement programs are built on a foundation of equity, with a range of innovative, transparent, and creative outreach methods.

Over the reporting period, the first PAG meeting was held on Wednesday, March 15, 2023 (virtual) and the CBOSG meeting was held on Thursday, March 16, 2023 (virtual) [Please see Appendix 1 for PAG and CBOSG lists, including those invited; reference Appendix 2 for PAG and CBOSG meeting materials including presentation slides and CBOSG Application; Appendix 3 includes Guiding Principles Document presented to the PAG. Appendix 4 contains website links to both PAG and CBOSB meeting recordings]. Since these were the first kickoff meetings, many attendees had little familiarity with the Project and therefore the content of the meeting materials was introductory in nature and no technical studies or reports were presented for PAG or CBOSG input. The agenda for the meeting included the opportunity for PAG and CBOSG members to introduce themselves and share what their expectations were for their participation. We conducted a short ice breaker survey to help better understand their motivation for participation, how the PAG and CBO groups are constituted and knowledge of hydrogen gas as it relates to California's ambitious climate goals. The meeting also covered the guiding principles of the PAG and CBO groups as well as provided an introduction to the Phase I technical process and timeline. When available, Phase One technical inputs and study results will be shared with PAG members for their input in alignment with the Decision.¹⁶ Feedback (e.g., verbal comments, written comments, survey responses, etc.) from PAG and CBOSG members is being tracked for each meeting and has been compiled and included in a summary report for each meeting (see Appendices 5 and 6). Additional PAG and CBOSG feedback received outside of each meeting has also been compiled and included in Appendix 7. Appendix 8 contains SoCalGas' response to comments and feedback received, which is organized by theme.

Certain PAG members submitted comments about providing ongoing feedback on the Phase One studies and the Quarterly Reports. SoCalGas has committed to working with the PAG members to create a communications protocol for ongoing engagement on the feasibility studies as well as the Quarterly Reports. This topic has been identified as a priority topic for discussion with the PAG.

¹⁵ Ibid.

¹⁶ D. 22-12-055 OP 6 (m), p. 76

The next PAG and CBOSG meetings are scheduled to be in-person meetings (with an option to attend virtually) in June 2023. Additional meetings are contemplated for August 2023, November 2023, February 2024, and May 2024. The meetings will focus on sharing preliminary findings and results of the Phase One studies and receiving feedback.

V. ALLIANCE FOR RENEWABLE CLEAN HYDROGEN ENERGY SYSTEMS (ARCHES)

The United States Department of Energy (DOE) is planning to award \$8 billion to up to ten regional hydrogen hubs across America to build self-sustaining hydrogen economies of producers, infrastructure, and users.¹⁷ The Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) is California's public-private hydrogen hub consortium to accelerate the development and deployment of clean, renewable energy sources to reduce greenhouse gas emissions and advance to a zero-carbon economy.¹⁸ The Decision requires SoCalGas to "join other entities that are members of the Alliance for Renewable Clean Hydrogen Energy Systems in support of the State of California's application for the federal funding provided through the Infrastructure Investment and Jobs Act and to "study a localized hydrogen hub solution, under the specifications required to be eligible for federal funding provided through the Infrastructure Investment and Jobs Act, as part of Phase One." SoCalGas joined ARCHES in October 2022 and SoCalGas's efforts and progress in partnering with ARCHES on its application being undertaken in compliance with the Decision is provided herein.

In accordance with the Decision, SoCalGas has been closely coordinating with ARCHES throughout the development of ARCHES's application for federal funding and has been supportive of the State's efforts to secure federal funding for a California hydrogen hub. On April 7, 2023, the State submitted its application to the DOE. SoCalGas is among one of the more than 100 members within the ARCHES network. SoCalGas also sought participation from ARCHES on the Angeles Link PAG on February 10, 2023.

VI. APPENDIX

1. Attendee list for first PAG and CBOSG meetings, including those invited.
2. PAG/CBOSG meeting materials.
3. PAG/CBOSG Guiding Principles Document.
4. Links to PAG and CBOSG meeting recording.

¹⁷ <https://archesh2.org/>

¹⁸ Ibid.

5. Summary of PAG Meeting, including survey question responses and other feedback obtained orally or via chat during first PAG virtual meeting.
6. Summary of CBO Stakeholder meeting, including survey question responses and other feedback obtained orally or via chat during first CBOSG virtual meeting.
7. PAG/CBOSG member comments.
8. SoCalGas Thematic Responses to Comments.

End of Report

Exhibit G



Angeles Link Community Based Organization Stakeholder Group Application

About the Angeles Link

SoCalGas is proposing to develop what could be the nation's largest clean renewable hydrogen pipeline system, that could deliver clean, reliable, renewable energy to the Los Angeles region. As envisioned, the Angeles Link could support the integration of more renewable electricity resources like solar and wind and could significantly reduce greenhouse gas emissions from electric generation, industrial processes, heavy-duty trucks, and other hard-to-electrify sectors of the Southern California economy. Angeles Link could also decrease demand for natural gas, diesel, and other fossil fuels in the LA Basin, helping accelerate California's and the region's climate and clean air goals.

Angeles Link Community Based Organization Stakeholder Group

SoCalGas is committed to engaging in a robust and transparent stakeholder engagement process with a diverse group of stakeholders in developing Angeles Link. As such, SoCalGas is creating a Community Based Organization Stakeholder Group (CBOSG) composed of organizations that advocate for environmental social justice and represent and serve disadvantaged communities that could be impacted by the Angeles Link. The purpose of the CBOSG is to identify and address potential impacts the Project may have on these communities. The CBOSG will meet on a quarterly basis and CBOs will be eligible for a per meeting stipend of \$500 for their participation.¹

Community Based Organization Outreach Group (CBOSG) Selection Process and Criteria

SoCalGas is seeking participation from a diverse group of CBOs that have a history of engaging in hydrogen and other energy infrastructure proposals in the Los Angeles Basin or that represent disadvantaged communities in Los Angeles. This includes, but is not limited to, environmental and social justice organizations, faith-based organizations, education organizations, affordable housing providers, health care providers, tribal communities, and organizations that serve disadvantaged youth.

SoCalGas will be launching an application for the CBOSG on March 16, 2023, to help interested organizations to participate in the CBOSG. All applications will be due on April 28, 2023. The Angeles Link staff welcome all to apply against the selection criteria outlined below. All organizations interested in being part of the CBOSG are required to submit an application, which can be provided in English or Spanish. Selected organizations will be notified by May 15, 2023, and the first in-person meeting will take place in June.

Applications will be considered on a rolling basis, and if vacancies become available in the future, additional members will be added to the CBOSG.

¹ Final compensation amount is subject to California Public Utilities Commission Approval



Selection Criteria of Community Based Organization Stakeholder Group

No more than 40 CBOs will be selected to participate in the CBOSG. Individuals applying on behalf of an organization must be authorized to speak on behalf of the entity.

Specifically, CBOs will be considered based on the following criteria:

- A minimum of five (5) years of Community Based Organizing, coalition building, or social justice activities within the Los Angeles Basin;
- Must have previous or current projects and community outreach efforts within the Los Angeles Basin area;
- Demonstrate a strong and diverse network including community engagement and previous experience communicating information to their networks;
- Strong roots within the community;
- Established rapport within the community that they represent and demonstrate leadership in their local community members;
- Diversity in membership: community organizations selected will be able to reach and share information with their members and various diverse stakeholders.

It is expected that all CBOSG members are committed to actively engaging in this collaborative process, including attending scheduled meetings and meeting all the criteria outlined above. CBOSG members are responsible for notifying SoCalGas if they are not able to participate or provide an alternate to attend in their place.

Community Based Organization Outreach Group Membership Details

Final CBOSG Decision-Making and Confirmation

SoCalGas will begin reviewing applications on May 1, 2023. The selection process will be based on the criteria outlined above. Acceptance into CBOSG will be notified via email by May 15, 2023.

Once an organization has been accepted as part of the CBOSG they are required to sign the participation agreement which includes public disclosure of their participation. Each organization will be allowed to designate an alternate if the primary member cannot attend the meeting. The alternate will be required to submit an interest form and sign the participation agreement.

Stipend

Community Based Organizations will receive a \$500 stipend per meeting attended. Final compensation amount is subject to California Public Utilities Commission (CPUC) approval. These meetings will be held quarterly. If there are any other meetings added, the Community Based Organization will be notified with ample time to be able to accommodate their participation. CBO Stakeholder meetings will need to be attended by the CBO's primary or alternate member.



Meeting Date, Time, and Location

CBOSG meetings will be held on a quarterly basis throughout Phase 1 of the project, typically on Thursday mornings. The meetings will be organized and facilitated by the Lee Andrews Group and will consist of both virtual and in-person formats. If an in-person meeting is required, the participant will be given ample notice to be able to attend and lunch will be provided should we work into the lunch hour. Should public health guidelines require, the meetings will take place virtually via Zoom. Spanish language interpretation services will be provided at all meetings.

Stakeholder Community Based Organization Group Engagement Guidelines

To facilitate mutual and respectful participation all CBOSG members agree to the following:

- Be punctual, respect time limits for agenda items, and plan to stay for the entire meeting.
- Actively participate in the review of materials and discussion and prioritize their involvement to maximize the benefit of all participants.
- Communicate openly and directly, be courteous, listen attentively, and be respectful of other points of view.
- Participate fully in the group exchange, and do not engage in sideline conversations, crosstalk, or distracting behaviors.
- Refrain from any form of personal attacks or use of profanity.
- Respect the role of the facilitator as a professional committed to keeping meetings productive and on track.
- SoCalGas pledges to hear all sides and record feedback.
- SoCalGas is committed to openly replying to questions, comments, and concerns.
- SoCalGas will review and learn from CBOSG feedback.

The staff of Angeles Link reserves the right to remove any members of the CBOSG if they do not comply with the Engagement Guidelines outlined above.

Community Based Organization Stakeholder Group Angeles Link Application

Please return to stakeholderoutreach@socalgas.com by April 28, 2023

Community Based Organization: _____



Primary Representative Name: _____

Alternate Representative Name: _____

Address: _____

Phone Number: _____

Organization Address: _____

Primary Representative Email Address: _____

Alternate Representative Email Address: _____

Application Questions:

Please attach answers on a separate sheet

1. Why are you interested in becoming a member of the Angeles Link Community Based Organization Stakeholder Group?
2. What is the mission of your organization? What relevant previous experience does your organization have?
3. Do you have prior experience, service, and/or involvement on an advisory group? If so, what was it related to?

I hereby certify that, to the best of my knowledge, the information provided above is true and accurate.

Name: _____

Signature: _____

Date: _____

The information provided by you on this application (including contact or other personal information is public record and may be released through a California Public Records Act request.)

For more information contact stakeholderoutreach@socalgas.com or
Emily Grant, Angeles Link Sr. Public Affairs Manager at 714-388-4889.

Exhibit H

Theo Caretto

From: Grant, Emily <EGrant1@socalgas.com>
Sent: Wednesday, April 26, 2023 4:25 PM
To: Theo Caretto; stakeholderoutreach; Alma Marquez
Cc: alstakeholder; Shana Lazerow; Roberto Cabrales; Ambar Rivera
Subject: RE: SoCalGas Angeles Link CBOSG Participants-Attachments

Follow Up Flag: Follow up
Flag Status: Flagged

Fantastic – I'll set it up now.

Thanks!
Emily

From: Theo Caretto <Theodore@cbecal.org>
Sent: Wednesday, April 26, 2023 4:21 PM
To: Grant, Emily <EGrant1@socalgas.com>; stakeholderoutreach <stakeholderoutreach@socalgas.com>; Alma Marquez <almarquez@leeandrewsgroup.com>
Cc: alstakeholder <alstakeholder@socalgas.com>; Shana Lazerow <slazerow@cbecal.org>; Roberto Cabrales <rcabrales@cbecal.org>; Ambar Rivera <ambar@cbecal.org>
Subject: [EXTERNAL] RE: SoCalGas Angeles Link CBOSG Participants-Attachments

CAUTION! EXTERNAL SENDER STOP, ASSESS, AND VERIFY

Do you know this person? Were you expecting this email, any links or attachments? Does the content make sense? If suspicious, do not click links, open attachments, or provide credentials. Don't delete it. **Report it by using the REPORT SPAM option!**

I am not sure if other folks on the CBE side will join, but I prefer Teams.

Thanks for the quick response,

Theo

From: Grant, Emily <EGrant1@socalgas.com>
Sent: Wednesday, April 26, 2023 4:19 PM
To: Theo Caretto <Theodore@cbecal.org>; stakeholderoutreach <stakeholderoutreach@socalgas.com>; Alma Marquez <almarquez@leeandrewsgroup.com>
Cc: alstakeholder <alstakeholder@socalgas.com>; Shana Lazerow <slazerow@cbecal.org>; Roberto Cabrales <rcabrales@cbecal.org>; Ambar Rivera <ambar@cbecal.org>
Subject: RE: SoCalGas Angeles Link CBOSG Participants-Attachments

Hi Theo – 4:00 tomorrow works great. Would you prefer 1x1 phone call or a TEAMS meeting? I am good with whatever works best for you.

Emily

From: Theo Caretto <Theodore@cbecal.org>
Sent: Wednesday, April 26, 2023 3:45 PM
To: stakeholderoutreach <stakeholderoutreach@socalgas.com>; Alma Marquez <almarquez@leeandrewsgroup.com>
Cc: Grant, Emily <EGrant1@socalgas.com>; alstakeholder <alstakeholder@socalgas.com>; Shana Lazerow <slazerow@cbecal.org>; Roberto Cabrales <rcabrales@cbecal.org>; Ambar Rivera <ambar@cbecal.org>
Subject: [EXTERNAL] RE: SoCalGas Angeles Link CBOSG Participants-Attachments

CAUTION! EXTERNAL SENDER STOP, ASSESS, AND VERIFY

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Good afternoon,

Thank you for sharing this list, I look forward to reading the full report. I am available for a call tomorrow between 2-5pm, let me know if a time in that window works for you.

Best,

Theo

Theo Caretto
Legal Fellow
Communities for a Better Environment
6325 Pacific Blvd. Ste 300
Huntington Park, CA 90255
(323) 826-9771

The information contained herein is confidential and may be privileged as an attorney-client communication. It is intended only for the individual or entity to whom it is addressed. If you are not the intended recipient, you are hereby notified that any use of this communication is strictly prohibited.

From: stakeholderoutreach <stakeholderoutreach@socalgas.com>
Sent: Wednesday, April 26, 2023 11:48 AM
To: Theo Caretto <Theodore@cbecal.org>; Alma Marquez <almarquez@leeandrewsgroup.com>
Cc: Grant, Emily <EGrant1@socalgas.com>; alstakeholder <alstakeholder@socalgas.com>
Subject: RE: SoCalGas Angeles Link CBOSG Participants-Attachments

Hi Theo,

Thanks again for your continued engagement on both the PAG and CBOSG. We welcome all of your feedback and appreciate the time you have dedicated to serving as a stakeholder and as a stakeholder representative. We endeavor to continually improve our process as the project advances and your feedback and engagement is an important part of these efforts.

Attached is the information you requested regarding the CBOSG complete invite list for the March 16 meeting. Please note that this list may continue to change as we receive recommendations and applications for participation and/or

encounter other appropriate invitees for future meetings. Please also be on the lookout for a more formal response to your quarterly report comments. We plan to both send you a response and include our response in the quarterly report.

Lastly, when is a good time for a call today or tomorrow to follow-up on any additional questions you may have? I am happy to share what our thinking was and received anymore feedback you may have (and share some upcoming plans).

Thanks again, Theo, for your willingness to engage and thorough evaluation of our stakeholder engagement process.

Warmly,

Emily Grant
Angeles Link Public Affairs
SoCalGas
c | 714.388.4889

From: Theo Caretto <Theodore@cbecal.org>
Sent: Monday, April 24, 2023 10:06 AM
To: Alma Marquez <almarquez@leeandrewsgroup.com>
Cc: Grant, Emily <EGrant1@socalgas.com>; stakeholderoutreach <stakeholderoutreach@socalgas.com>
Subject: [EXTERNAL] RE: SoCalGas Angeles Link CBOSG Participants-Attachments

CAUTION! EXTERNAL SENDER STOP, ASSESS, AND VERIFY

Do you know this person? Were you expecting this email, any links or attachments? Does the content make sense? If suspicious, do not click links, open attachments, or provide credentials. Don't delete it. **Report it by using the REPORT SPAM option!**

Good morning Alma,

I wanted to follow up on this inquiry.

With the April 28 deadline set by SoCalGas quickly approaching, I would greatly appreciate a response as soon as possible.

Thank you,

Theo

Theo Caretto
Legal Fellow
Communities for a Better Environment
6325 Pacific Blvd. Ste 300
Huntington Park, CA 90255
(323) 826-9771

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From: Theo Caretto
Sent: Wednesday, April 12, 2023 12:39 PM
To: Alma Marquez <almarquez@leeandrewsgroup.com>
Subject: RE: SoCalGas Angeles Link CBOSG Participants-Attachments

Hello Alma,

Thank you for getting back to me and sharing this.

I noticed that the Angeles Link's PAG meeting summary report included a list of all organizations which were invited to join that session, while the CBOSG report lists organizations who attended the first meeting and organizations who expressed interested in participating in future meetings.

Could you please share a list of all organizations who were invited to the CBOSG? If not, is there a reason why that list has not been shared or included in the report?

Thank you,

Theo
Theo Caretto
Legal Fellow
Communities for a Better Environment
6325 Pacific Blvd. Ste 300
Huntington Park, CA 90255
(323) 826-9771

The information contained herein is confidential and may be privileged as an attorney-client communication. It is intended only for the individual or entity to whom it is addressed. If you are not the intended recipient, you are hereby notified that any use of this communication is strictly prohibited.

From: Alma Marquez <almarquez@leeandrewsgroup.com>
Sent: Tuesday, April 11, 2023 5:44 PM
To: Theo Caretto <Theodore@cbeal.org>
Subject: SoCalGas Angeles Link CBOSG Participants-Attachments

Hello Theo,

Thank you for reaching out to us regarding the SoCalGas Angeles Link Introduction meeting on March 16, 2023. I am attaching the following for your review:

1. Summary Report
2. Copy of the Presentation
3. The CBOSG Compensation Application

We are currently working on the link issue you had in the email we sent you and I apologize for any inconvenience this may have caused you.

Feel free to reach out to me for any questions.

I look forward to receiving your application.

Thank you.

ALMA MARQUEZ

Vice President of Government Relations| Lee Andrews Group, Inc.

700 S. Flower Street, Suite 1275

Los Angeles, CA 90017

Office: 213.891.2965, Ext. 103 | 562-922-3564

almarquez@leeandrewsgroup.com

www.leeandrewsgroup.com [leeandrewsgroup.com]



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Exhibit I

April 14, 2023

Emily Grant
Angeles Link SoCalGas Sr. Public Affairs Manager
Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013

Submitted via email to alpag@socalgas.com

Feedback for Southern California Gas Company on Angeles Link Project March 15 and March 16 Public Engagement Meetings

On March 15 and March 16, 2023, Southern California Gas Company (SoCalGas) convened the first planning advisory group (advisory group) meeting and community-based organization stakeholder group (stakeholders) meeting as part of stakeholder engagement mandated by the California Public Utilities Commission in A.22-02-007 (Angeles Link project application).

The Angeles Link project, if completed as proposed by SoCalGas, would result in a major hydrogen gas pipeline across California. The pipeline would originate in eastern California or a nearby western state and terminate in the Los Angeles basin. The project study and permit applications alone will cost several hundred million dollars before any construction occurs.¹ The size and expense of the project will entrench hydrogen in California's energy economy.

In its decision D.22-12-055 (the Decision), the Commission commended SoCalGas for its commitment to quarterly public engagement meetings. These were portrayed to the Commission as a key element of an interactive process for technical advice and collaboration on project design and development, and as a space to discuss environmental justice issues, workforce development, sources of clean renewable hydrogen and water, and potential pipeline scenarios and routes. The Commission also noted that iterative stakeholder engagement would be crucial to addressing the broad range of diverse community interests impacted by the project, and “[m]ost importantly” to address the potential impacts of the project on disadvantaged communities.² The Commission explains that this engagement is most important because of concerns that the project could increase pollution in environmental justice communities through hydrogen leaking from pipelines and NOx emissions from hydrogen combustion, and could divert scarce water resources from local communities. In this vein, the Decision directs SoCalGas to proactively identify and invite community-based organizations (CBOs) that serve communities that may potentially be impacted by the Angeles Link project.³

¹ D.22-12-055, Application of Southern California Gas Company (U-904 G) for Authority to Establish a Memorandum Account for the Angeles Link Project, p.4 (Dec. 15, 2022), available at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M500/K167/500167327.PDF> (hereafter “Decision”).

² Decision at pp. 45-46.

³ Decision at p. 78.

The Decision requires that, in the development of the Angeles Link project, the planning process “address affordability concerns”; “consider the impacts to disadvantaged communities and address environmental justice concerns”; “consider California environmental law and public policies”; “gather and address stakeholder concerns”; and “consider and evaluate Project alternatives, including a localized hydrogen hub or other decarbonization options such as electrification, their costs and their environmental impacts.”⁴ These requirements are the core of SoCalGas’s engagement efforts and the *raison d’etre* for the advisory group and stakeholder engagement.

The below signed organizations believe SoCalGas has failed to comply with the Decision by (1) failing to conduct the ordered CBO outreach, (2) failing to invite important environmental justice and environmental organizations to advisory meetings, (3) using public engagement meetings as public relations platform, (4) treating CBOs as lesser partners than PAG members, and (5) failing to construct a process that permits “technical advice and collaboration” by parties.

1. SoCalGas failed to comply with the Commission’s order regarding the stakeholder engagement group

The Commission’s decision ordered SoCalGas to identify and invite participation from community-based organizations that *may potentially be impacted* by the Project, including disadvantaged communities and environmental social justice groups. SoCalGas has proposed at least 10 different pipeline routes snaking across the Inland Empire, Central Valley, and Mojave Desert, as well as large swaths of Nevada, Utah, and Arizona.⁵

SoCalGas has not reached out to invite communities along those ten routes to participate in the stakeholder group. In fact, SoCalGas excludes all community organizations unless they are able to demonstrate at least 5 years of community-based work in Los Angeles.⁶ SoCalGas’ exclusionary policy ensures that only long-established Los Angeles-based CBOs can be informed and part of a conversation about routes that will, in all likelihood, transform communities where those CBOs do not live or work. It silences distinct and important voices of communities who would be impacted by any of the 10 proposed routes. It will inevitably favor the voices of CBOs who may have substantially different concerns or interests in hydrogen.

2. SoCalGas failed to invite key participants to the advisory group or stakeholder group

The Decision envisioned that SoCalGas would, at a minimum, invite parties from the proceeding to participate in the Planning Advisory Group.⁷ Yet many parties, including the California Environmental Justice Alliance, whose member organizations include Communities for a Better Environment and several environmental justice groups who may be affected by the

⁴ Decision p. 75.

⁵ Southern California Gas Company (U904g) Responses to September 22, 2022 Administrative Law Judge Email Ruling Directing Applicant to Address Questions, Attachment A, pp. 17-18 (Sept. 30, 2022) available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M497/K342/497342607.PDF>.

⁶ SoCalGas, Angeles Link Community Based Organization Stakeholder Group Application, available at https://www.dropbox.com/s/ggnuqj6ot7g0yf4/Angeles_Link_CBOSG_Application_Final.pdf?dl=0.

⁷ SoCalGas has not released a full list of CBOs who were invited to the CBOSG.

Angeles Link, did not receive the invitation SoCalGas claimed to have sent. Yet other organizations' invitations were improperly directed despite participation in the proceedings. In fact, it appeared only a portion of the proceeding service list was ever served with the invitation. SoCalGas does not even clearly invite participation in the Angeles Link on its project website.

3. SoCalGas used the advisory and stakeholder engagement meetings for public relations, not engagement or to seek feedback

The Decision forbid SoCalGas from recovering costs associated with Public Outreach and Public Relations, rather permitting SoCalGas to conduct public engagement through the advisory and stakeholder process.⁸ The decision highlights the "PAG is a useful vehicle for providing transparency into the Angeles Link planning process and providing feedback to SoCalGas on Project options and alternatives."⁹ Unfortunately, SoCalGas has chosen to use the advisory and stakeholder meetings as hydrogen propaganda instruments. SoCalGas limited open discussion, treated the project's construction as a forgone conclusion, and presented prewritten poll questions that allowed only for a range of positive or neutral responses to the project.¹⁰

4. Community-Based Organizations were treated as passive viewers, not participants

The differences between the advisory group and stakeholder meetings were stark. Both initial meetings were conducted via Zoom videoconference. Advisory group members were permitted to chat with others, unmute themselves, view other participants on the call, appear on video, and more or less be equal participants in the meeting. At the stakeholder meeting, participants were classified as audience, leaving them unable to chat, unmute, view participants, or appear on video. The only ways to engage were to respond to poll questions when presented, or to click "Raise Hand" in the Zoom interface, relying on SoCalGas to unmute the participant when it chose. While some of these limitations appeared to be unintentional and steps were taken to overcome some issues, SoCalGas was unable to fully remedy the situation, leading to confusion and inability of participants to vote in polls or participate fully.

In addition, as mentioned above, and unlike advisory group participation, to participate in the community stakeholder meetings, organizations must apply before April 28, and be accepted by SoCalGas. This puts CBOs on a timeline to decide whether to participate at all, while also facing the many engagement barriers parties raised in the Angeles Link Proceeding.¹¹ All of these additional barriers to participation, on top of the exclusion of non-Los Angeles organizations, chill discussion around the most important part of the public engagement process and devalue community's lived experience.¹²

⁸ Decision at pp. 47-48, 74.

⁹ Decision at p. 46.

¹⁰ ANGELES LINK: PLANNING ADVISORY GROUP MEETING #1 Meeting Summary, pp. 10-11 (April 6, 2023), available at https://www.dropbox.com/s/g0i02j4ovgwpbbn/Angeles%20Link%20PAG%20%231%20Summary_Final.pdf?dl=0.

¹¹ The barriers include lack of community knowledge around hydrogen, absence of language specific educational materials, need to reach consensus-based decisions, budgetary and staffing limitations. Opening Comments of Sierra Club and the California Environmental Justice Alliance, pp 6-9 (Nov. 28, 2022), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M499/K346/499346781.PDF>.

¹² Decision at pp. 45-46.

5. The advisory and stakeholder groups fail entirely to meet the Commission’s engagement requirements

SoCalGas has failed to create a process that allows for “technical advice and collaboration” by imposing the above discussed limitations and eschewing commonly used Commission practices. Commission proceedings frequently implement technical advice and collaboration processes by providing discussion meetings which involve clear and advance notice to potential participants, viewpoint neutral or multi-viewpoint presentations, advanced drafts of proposed studies, feedback and commenting processes for technical work, clear guidelines for parties to give feedback on the process itself, and open meetings where participants are on level footing with presenters. The Utility Consumers’ Action Network’s March 31, 2023 feedback letter to SoCalGas discusses these structural defects of the advisory group process in much greater detail and proposes several important changes.¹³ Despite being approved to spend at minimum \$26 million in this first phase of the project, SoCalGas has chosen to conduct studies without public input, declined to permit advisory group advice and comment on planning documents until studies are complete, and limited feedback. SoCalGas failed to provide mechanisms which they themselves frequently enjoy in proceedings and in doing so violated the Commission Decision.

All of these defects with the Angeles Link advisory and stakeholder group rollout violate the Decision’s mandate of transparent technical advice and collaborative public engagement. The advisory and stakeholder groups exclude and silence community organizations, act as a mouthpiece for public relations materials, and limit technical collaboration and transparency. Such shortcomings mean SoCalGas will be unable to show they reasonably and in good faith address project-specific standards imposed by the Decision.

To remedy these faults SoCalGas should immediately:

- Conduct outreach to CBOs throughout all proposed pipeline routes,
- Immediately permit CBOs throughout the State to join stakeholder meetings,
- Rescind the April 28 deadline for CBOs to apply for stakeholder participation,
- Treat CBOs with at least the same access and privileges accorded to advisory group members,
- Invite additional environmental justice organizations to public engagement meetings,
- Stop public relations activity and propaganda sharing in public engagement meetings and present neutral viewpoint information, and
- Implement standard Commission information sharing and iterative feedback and collaboration practices so that advisory and stakeholder meetings can serve their intended purpose.

¹³ Utility Consumers’ Action Network, Feedback for SoCalGas for inclusion in SoCalGas’s Q1-2023 Angeles Link Phase 1 Report to the California Public Utilities Commission (Mar. 31, 2023), available at <https://www.dropbox.com/s/1k0obsbj1q1y26y/2023-03-31%20-%20UCAN%20comments%20-%20PAG%20Q1.pdf?dl=0>.

Sincerely,

Shana Lazerow
Theo Caretto
Communities for a Better Environment

Alexis Sutterman
California Environmental Justice Alliance

Monica Embrey
Sierra Club

Alex Jasset
PSR-LA

Faraz Rizvi
Asian Pacific Environmental Network

Jocelyn Del Real
East Yard Communities for Environmental Justice

Andrea Leon-Grossmann
Vote Solar

R.L. Miller
Climate Hawks Vote

Jesse Marquez
Ricardo Pulido
Coalition for a Safe Environment

Richard Parks
Redeemer Community Partnership

Jack Eidt
SoCal 350 Climate Action

Andrea Slater
Mothers Out Front – CA

Dawny'all Heydari
Pacific Environment

Rev. Louis A. Chase
Holman United Methodist Church

CC:

Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link PAG service list

Exhibit J



Angeles Link Quarterly Report (Phase One) Appendices

For the Period December 21, 2022 through March 31,
2023

Appendix 1
Attendee list for first PAG
and CBOSG meetings,
including those invited

PAG Invite and Attendance Summary

Industry/Sector	PAG Organization Member	Participant	3.15.23 Attended
Fuels	1 CA Hydrogen Business Council	Katrina Fritz, Executive Director	X
	2 Green Hydrogen Coalition*	Nicholas Connell, Policy Director	
	3 Clean Energy*		
	4 Air Products*	JP Gunn, Director, Hydrogen (HyCo) Business Manager	X
	5 Indicated Shippers*		
	6 Bloom Energy*	Christina Tan, Sr. Energy & Environmental Policy Manager	X
Labor	7 ILWU 13	Mark Jurisic, Representative for Local 13	X
	8 California State Pipe Trades Council*	Rodney Cobos, Business Manager/Financial Secretary	X
	9 Utility Workers Union of America 132*	Mike Cormode, North Coastal Representative	X
	10 Utility Workers Union of America 483*	Ernie Shaw, President	X
Heavy Duty Truck	11 Harbor Trucking Association	Matt Schrap, CEO	X
	12 Port of Los Angeles	Mike Galvin, Director of Waterfront and Commercial Real Estate	X
	13 City of Long Beach*	Mario Cordero, Executive Director, Port of Long Beach	
Research/Academia	14 UC Davis Sustainable Transportation Energy Pathways	Lew Fulton, Director, STEPS (Sustainable Transportation Energy Pathways)	
	15 UCI Advanced Power and Energy Program	Jack Brouwer, Professor of Mechanical and Aerospace Engineering	
	16 University California Riverside	Arun Raju, Associate Director of Operations at the Center for Environmental Research and Technology	
Industry	17 Southern California Leadership Council	Rich Lambros, Managing Director	
Manufacturing	18 California Manufacturers and Technology Association	Lance Hastings, President and CEO	
Electric Generation	20 LADWP	Marty Adams, General Manager & Chief Engineer	
	21 Independent Energy Producers Association*	Jan Smutny Jones, CEO	
	22 Southern California Generation Coalition*	Norman Pedersen, HANNA AND MORTON LLP	X
Environmental	23 Environmental Defense Fund**	Michael Colvin, Director, Regulatory and Legislative Affairs	X
	24 Natural Resources Defense Council*	Pete Budden, State and Regional Hydrogen Policy	X
	25 Sierra Club**		
	26 Protect our Communities Foundation**		
Enviro Justice	27 Environmental Justice League**	Russell Lowery, Managing Partner, High View Strategies	X
	28 Communities for Better Environment (CEJA?)*	Roberto Cabrales, CBE Southern California Program Co-Director	X
Disadvantaged Com.	29 TBD-Open Spot**		
Local Gov.	30 Reimagine LA**	Raul Claros, Co-Founder and Chief Strategist	X
	31 Southern CA Association of Governments	Kome Ajise, Executive Management	
Ratepayers	32 Cal Advocates*	Chris Myers, Public Utilities Regulatory Analyst	
	33 The Utility Reform Network*	Marna Anning, Energy and Climate Attorney	
	34 Utility Consumers' Action Network*	Tyson Siegle, Principal Consultant, Clean Energy Strategies	X
Water	35 Agricultural Energy Consumers Association*	Michael Boccadoro, Executive Director, Dairy Cares	X
	36 Southern California Water Coalition	Charley Wilson, Executive Director	X
	37 Metropolitan Water District	Deven Upadhyay, Assistant General Manager and COO	
ARCHES	38 ARCHES	Angelina Galiteva	
	39 GoBiz	Dee Dee Myers, Dir. of Governor's Office of Business and Economic Development	
Agencies	40 California Energy Commission***	Rizaldo E. Aldas, Energy Generation Research Branch	X
	41 California Air Resources Board***	Steve Cliff, Executive Officer	
	42 CPUC Energy & Safety Divisions***	Jack Chang, Senior Regulatory Analyst, Building Decarbonization and Renewable Gas, Energy Division	X
	43 SCAQMD	Wayne Nastri, Executive Officer	

*Parties (intervenor comp)

**CBO Compensation

*** Mentioned in ALMA

This color indicates an accepted invitation

This color indicates no response

This color indicates potential new PAG member in accordance with ALMA FD

X indicates participation in 3.15.23 Kick-Off meeting

Angeles Link CBOSG 1st Quarterly Meeting Attendees			
	First Name	Last Name	CBO Organization Member
1	Rashad	Rucker-Trapp	Reimagine LA Foundation
2	Marc	Carrel	Breathe Southern California
3	Curtis	Silvers	Brotherhood Crusade
4	Christopher	Arroyo	California Public Utilities Commission
5	Jack	Chang	California Public Utilities Commission
6	Daisy	Ma	Chinatown Service Center
7	Ricardo	Mendoza	Coalition for Responsible Community Development
8	Theo	Caretto	Communities for A Better Environment
9	Hyepin	Im	Faith and Community Empowerment (FACE)
10	Steve	Kang	Koreatown Youth + Community Center
11	Luis	Pena	LA Indigenous People's Alliance
12	Ronnie	Han	LA Más
13	Rene	Williams	Los Angeles City/County Native American Indian Commission
14	Maiesha	Kif	Los Angeles Urban League
15	Dr. Ciriaco "Cid"	Pinedo	Mexican American Opportunity Foundation
16	Araksya	Nordikyan	PESA (Parents,Educators/Teachers & Students in Action)
17	Devapriya	Roy	PESA (Parents,Educators/Teachers & Students in Action)
18	Enrique	Aranda	Soledad Enrichment Action
19	Andrea	Wiliams	Southside Coalition of Community Health Centers
20	Lucy	Castro	Southside Coalition of Community Health Centers
21	Lorna	Avila	T.R.U.S.T. South LA
22	Reginald	Johnson	Willowbrook Inclusion Network
23	Robert	Battles	Willowbrook Inclusion Network
24	Gerry	Salcedo	YMCA of Metropolitan Los Angeles
25	Maria	Mendoza	YMCA of Metropolitan Los Angeles

Total CBOs Attendees:

25

Invited CBOSG Members

CBO Organization Member
Coalition for Clean Air
Communities for a Better Environment
East Yard Communities
LA Nature for All
Moving Forward Network
Pacoima Beautiful
Physicians for Social Responsibility
Strategic Concepts in Organizing and Policy Education
Mujeres de la Tierra
Coalition for a Safe Environment
California Environmental Justice Alliance
Breathe SoCal
Greenlining Institute
Natural Resources Defense Council*
Environmental Defense Fund**
Sierra Club**
Protect our Communities Foundation**
Environmental Justice League**
Comunidades Indigenas En Liderazgo (CIELO)
Los Angeles City/County Native American Indian Commission
Brotherhood Crusade
Koreatown Youth Community Center
American Indian Chamber of Commerce
LA Urban League
TRUST South LA
Southeast Rio Vista YMCA
Mexican American Opportunity Fund
Alma Family Services
VIA Care
CA Greenworks
Reimagine LA
Clergy and Laity United for Economic Justice (CLUE)
Proyecto Pastoral
Faith and Community Empowerment (FACE)
LA Voice
Parent Institute for Quality Education (PIQE)
THINK Together
Long Beach Forward
Coalition for Repsonsible Community Development
AltaMed
Los Angeles Indigenous People's Alliance
Watts Labor Community Action Committee
Willowbrook Inclusive Network
Asian American Advancing Justice
Southside Coalition of Community Health Centers
Watts/Century Latino Organization

*Parties (intervenor comp)

**CBO Compensation

*** Mentioned in ALMA

Exhibit K

**SOUTHERN CALIFORNIA GAS COMPANY
PURSUANT TO CPUC GENERAL ORDER NO. 77- M
FOR THE YEAR ENDED DECEMBER 31, 2021**

REDACTED VERSION

INDEX

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NOTE: Per the requirements of GO 77-M Utilities (those with over \$1 billion annual operating revenues) are directed to include an internet site-link to all publicly available documents filed with the Securities and Exchange Commission (SEC) and with the California Public Utilities Commission that relate to executive compensation. Southern California Gas Company's links are:

<https://investor.sempra.com/sec-filings>

<http://www.socalgas.com/regulatory/cpuc.shtml>

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

	<u>TOTAL</u>
1. MEMBERSHIPS - DUES & SUBSCRIPTIONS	\$ 3,722,881
2. CHARITABLE DONATIONS	17,940,400
3. NON- CHARITABLE CONTRIBUTIONS	1,608,672
 TOTAL	 <u><u>\$ 23,271,953</u></u>

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

1. MEMBERSHIP - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
ADVANCED POWER AND ENERGY PROGRAM	921 \$	30,000
AIHA LABORATORY ACCREDITATION PROGRAMS, LLC	925	1,612
AIR AND WASTE MANAGEMENT ASSOCIATION	824	118
	908	195
	921	195
AMERICAN ASSOCIATION OF BLACKS IN ENERGY	880	250
	908	250
AMERICAN BOARD OF TRIAL ADVOCATES	921	825
AMERICAN GAS ASSOCIATION	930	935,732
AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS	903	520
	920	815
	921	1,729
AMERICAN PETROLEUM INSTITUTE	814	730
	850	2,837
	864	73
AMERICAN PLANNING ASSOCIATION	921	1,488
AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING	850	1,985
	870	425
AMERICAN SOCIETY OF CIVIL ENGINEERS	814	78
	850	939
	870	252
	921	569
AMERICAN SOCIETY OF MECHANICAL ENGINEERS	107	316
	850	183
	870	35
	880	63
	921	63
	930	158
AMERICAN SOCIETY OF SAFETY PROFESSIONALS	925	885
AMERICAN WELDING SOCIETY	107	44
	850	3,193
	856	525
ASSOCIATION FOR MATERIALS PROTECTION AND PERFORMANCE	184	915
	814	565
	850	7,215
	863	598
	870	3,380
	925	150
	930	440
ASSOCIATION FOR THE ADVANCEMENT OF COST ENGINEERING INTERNATIONAL	930	1,595
ASSOCIATION FOR THE WORK TRUCK INDUSTRY	184	655

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

1. MEMBERSHIP - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
ASSOCIATION OF CALIFORNIA WATER AGENCIES	908	1,275
ASSOCIATION OF CORRECTIONAL FOOD SERVICE AFFILIATES	908	2,884
ASSOCIATION OF ENERGY ENGINEERS	908	3,175
	921	300
	930	300
ASSOCIATION OF ENERGY SERVICES PROFESSIONALS	908	2,500
BIOENERGY ASSOCIATION OF CALIFORNIA	921	20,000
BOARD FOR GLOBAL EHS CREDENTIALING	921	150
	925	600
BOARD OF TRUSTEES OF THE LELAND	188	75,000
BUILDING INDUSTRY ASSOCIATION	908	2,000
CALIFORNIA BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS	107	393
	814	630
	815	115
	850	2,942
	863	161
	870	1,930
	880	255
	887	31
	908	1,075
	921	1,017
	930	296
CALIFORNIA BOARD OF ACCOUNTANCY	807	250
	814	75
	850	49
	870	88
	903	500
	908	500
	920	250
	921	1,500
	923	250
	928	250
CALIFORNIA CHAMBER OF COMMERCE	925	5,000
CALIFORNIA HYDROGEN BUSINESS COUNCIL	921	18,000
CALIFORNIA INSTITUTE OF TECHNOLOGY	908	32,000
CALIFORNIA LAND SURVEYORS ASSOCIATION	815	520
CALIFORNIA LEAGUE OF FOOD	908	545
CALIFORNIA METALS COALITION	908	1,650
CALIFORNIA NATURAL GAS VEHICLE COALITION	910	57,200
CALIFORNIA RESTAURANT ASSOCIATION	908	625
CALIFORNIA SELF-INSURERS ASSOCIATION	925	990

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

1. MEMBERSHIP - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
CALIFORNIA SMALL BUSINESS ALLIANCE	908	3,000
CALIFORNIA SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS	903	1,700
	908	435
	920	435
	921	2,535
CALIFORNIA TRANSIT ASSOCIATION	908	1,400
CALIFORNIA TRUCKING ASSOCIATION	901	1,157
	910	25,000
CALIFORNIA UTILITIES EMERGENCY	925	20,654
CALSTART	908	24,726
CHAMBER OF COMMERCE - BURBANK	921	500
CHWMEG INC	880	2,500
CITY CLUB LOS ANGELES	921	5,152
COALITION FOR RENEWABLE NATURAL GAS, INC.	921	18,000
COMMON GROUND ALLIANCE	909	25,000
CONFERENCE OF CALIFORNIA PUBLIC UTILITY COUNSEL	921	1,240
CONSORTIUM ENERGY EFFICIENCY	908	15,000
CPA QUEBEC	921	711
CSDA MEMBER SERVICES	908	2,500
DEPARTMENT OF CONSUMER AFFAIRS	880	175
	921	500
DISABILITY MANGEMENT EMPLOYER COALITION	925	530
DRUG & ALCOHOL TESTING INDUSTRY ASSOCIATION	926	595
EMPLOYERS FRAUD TASK FORCE	925	1,000
ENERGY SOLUTIONS CENTER, INC.	908	44,440
ENVIROCERT INTERNATIONAL, INC.	850	204
	870	54
	920	173
	921	173
E-SOURCE COMPANIES	908	34,476
GAS MACHINERY RESEARCH COUNCIL	930	4,160
GAS TECHNOLOGY INSTITUTE	188	100,000
	908	25,000
GREATER IRVINE CHAMBER	921	1,300
GROUP OF ORGANIZATIONAL EFFECTIVENESS	921	7,450

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

1. MEMBERSHIP - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
HOME BUILDERS ASSOCIATION	908	1,400
HR CERTIFICATION INSTITUTE	921	607
HYDROGEN COUNCIL	908	1,517
INSTITUTE OF TRANSPORTATION STUDIES	188	80,000
INTERNATIONAL ACCREDITATION	908	3,100
INTERNATIONAL INFORMATION SYSTEM SECURITY CERTIFICATION CONSORTIUM	107	125
	920	125
	921	250
INTERNATIONAL RIGHT OF WAY ASSOCIATION	814	250
	880	380
	921	4,290
	930	245
INTERNATIONAL SOCIETY OF AUTOMATION	107	306
	857	265
	870	210
LACBA LOS ANGELES COUNTRY BAR ASSOCIATION	921	700
LUNDBERG SURVEY INC	908	1,200
MAJOR MAILERS ASSOCIATION	903	2,000
MCG HEALTH, LLC	925	9,962
NATIONAL COUNCIL OF EXAMINERS FOR ENGINEERING AND SURVEYING	850	943
	870	1,246
	921	375
NATIONAL UTILITIES DIVERSITY COUNCIL	163	25,000
	921	250
NATURAL GAS VEHICLES FOR AMERICA	910	53,173
NEW HAMPSHIRE BAR ASSOCIATION	921	565
NEW YORK STATE UNIFIED COURT SYSTEM	921	761
NORTH AMERICAN ENERGY STANDARDS	850	8,000
NORTHEAST GAS ASSOCIATION	930	72,250
OPERATIONS TECHNOLOGY DEVELOPMENT	186	295,343
	930	425,174
ORANGE COUNTY PUBLIC AFFAIRS ASSOCIATION	921	500
PHYLMAR GROUP	925	4,500
PIPELINE ASSOCIATION FOR PUBLIC AWARENESS	909	59,200
PIPELINE RESEARCH COUNCIL INTL INC	930	147,564

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

1. MEMBERSHIP - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
PROJECT MANAGEMENT INSTITUTE	107	171
	108	18
	163	164
	188	139
	814	199
	850	1,189
	863	60
	870	298
	880	408
	905	129
	908	288
	920	150
	921	1,336
	923	4
	925	159
	930	229
PUBLIC RELATIONS SOCIETY OF AMERICA	921	650
RESTAURANT FACILITY MANAGEMENT ASSOCIATION	908	600
SANTA BARBARA COUNTY FLOWER AND NURSERY GROWERS ASSOCIATION	908	500
SOCIETY FOR HUMAN RESOURCE MANAGEMENT	920	219
	921	1,793
	928	219
	930	319
SOCIETY OF PETROLEUM ENGINEERS	107	110
	814	350
	832	235
	850	97
	870	26
	921	110
SOUTHERN CALIFORNIA ALLIANCE OF PUBLICLY OWNED TREATMENT WORKS	908	1,076
STANFORD ENERGY CORPORATE AFFILIATES	188	130,000
THE INSTITUTE OF FINANCE AND MANAGEMENT	921	998
THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS	850	780
THE STATE BAR OF CALIFORNIA	807	544
	921	19,641
	928	515
THE TRUSTEESHIP	921	750
TULARE COUNTY FARM BUREAU	908	2,500
UNIVERSITY OF TEXAS AT AUSTIN	850	5,250
UTILIZATION TECHNOLOGY DEVELOPMENT	188	650,000
WESTERN ENERGY INSTITUTE	921	49,145
WOMEN EXECUTIVE 50	921	38,000
TOTAL		<u><u>\$ 3,722,881</u></u>

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
2020 Women On Boards	11,000
A Place Called Home	10,000
Academy Of Special Dreams Foundation	500
Achievable Foundation	5,000
Affordable Living For The Aging	15,000
Airport Marina Counseling Service	8,500
All Peoples Community Center	2,500
Alliance For A Better Community	5,000
Alma Family Services	53,000
Altadena Chamber Of Commerce A Corp	1,000
American Assoc. of Blacks in Energy (AABE)	5,000
American Association Of Blacks In Energy Of Southern California	10,000
American Biogas Council	2,500
American Cancer Society Inc	21,500
American Career College Educational Foundation	2,500
American Gas Foundation	40,000
American Indian Chamber Education Fund	1,000
American Indian Chamber Of Commerce Of California	12,500
American Institute Of Chemical Engineers	5,000
American National Red Cross	117,500
American Public Works Association	656
Amigos De Los Rios	40,000
Anaheim Chamber Of Commerce	1,901
Anaheim Community Foundation	1,500
Andres Y Maria Cardenas Family Foundation	5,000
Antelope Valley Boys & Girls Club	2,500
Antelope Valley Economic & Growth Enterprise	5,000
Anti-Defamation League	10,000
Apis Mobilize	5,000
Arcadia Improvement Association	1,500
Arizona Womens Business Enterprise Council	25,000
Armenian American Museum And Cultural Center Of California	5,000
Artesia Chamber Of Commerce	950
Arts Connection	1,000
Arts Visalia	1,000
Asian American Civil Liberties and Anti-defamation	3,000
Asian American Drug Abuse Program Inc	5,000
Asian American Education Institute	5,000
Asian American Professional Association	20,000
Asian Americans Advancing Justice Los Angeles	50,000
Asian Americans Pacific Islanders United	2,500
Asian Business Association Of Orange County	13,500
Asian Pacific Community Fund Of Southern California	15,000
Asian Pacific Policy And Planning Council	10,000
Asian Resources Inc	2,500
Asian Youth Center	5,000
Asians And Pacific Islanders With Disabilities Of California	5,000
Assistance League Of San Bernardino	1,500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Association Of California Cities	20,000
Autry National Center of the American West	10,000
Badge Of Heart	2,000
Bakersfield College Foundation	5,000
Bay Area Council Foundation	3,000
Beloved Foundation	500
Bizfed Institute	9,500
Black Business Association Of Los Angeles	13,000
Black Contractors Association Of San Diego Inc	5,000
Black Voice Foundation	11,500
Black Women Lawyers Association Of Los Angeles Foundation	5,000
Black Youth Leadership Project	5,000
Blindness Support Services, Inc.	5,000
Blythe Chamber Of Commerce	1,000
Blythe Police Activities League	500
BMT Community Center	500
Bob Moretti Memorial Scholarship Foundation	2,500
Bolsa Chica Conservancy	10,000
Boys & Girls Club Of Capistrano Valley	750
Boys & Girls Club Of Fontana	1,500
Boys & Girls Club Of Southwest County	2,500
Boys & Girls Club Of Tulare County	2,500
Boys & Girls Club Of West San Gabriel Valley	1,500
Boys & Girls Club Of Whittier Inc	2,000
Boys & Girls Clubs Of Central Orange Coast	1,500
Boys & Girls Clubs Of Greater Redlands-Riverside	2,500
Boys & Girls Clubs Of The Sangorgonio Pass	3,500
Boys And Girls Club Of Laguna Beach	950
Boys And Girls Club Of Santa Clara Valley	5,000
Boys And Girls Club Of Ventura Inc	20,000
Boys And Girls Clubs Of Greater Conejo Valley Inc	2,500
Boys And Girls Clubs Of Huntington Valley	2,000
Boys And Girls Clubs Of The Los Angeles Harbor	2,500
Boys Club Of Buena Park	1,500
Boys Clubs Of Bakersfield	5,600
Boys Republic	7,750
Brackens Kitchen Inc	5,000
Breathe California Of Los Angeles County	15,000
Brentwood School	2,000
Bridge Builders Foundation Inc	20,000
Bridge To Home Scv	2,750
Burbank Temporary Aid Center Inc	2,500
Cal Poly Pomona Foundation Inc	1,000
Cal Poly Pomona Philanthropic Foundation	85,000
Cal State Fullerton Philanthropic Foundation	11,000
California African American Action Fund	12,500
California Asian Pacific Islander Legislative Caucus	3,750
California Capitol Network	500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
California Center For Public Policy	1,250
California Coastal Cleanup	7,500
California Community Foundation	10,000,000
California Environmental Education Foundation	10,000
California Federation Of Womens Clubs	4,000
California Forward	50,000
California Foundation On The Environment And The Economy	19,000
California Institute of Technology	54,000
California Latino Leadership Institute	10,000
California Legislative Black Caucus Policy Institute	25,000
California Marine Sanctuary Foundation	1,000
California Mid-Winter Fair Heritage Foundation	1,000
California Restaurant Association Foundation Inc	555,500
California Science Center Foundation	35,000
California State University Foundation	10,000
Calmatters	15,000
Calstart Inc	5,000
Capc-Asm	2,000
Careers Through Culinary Arts Program Inc	56,000
Cars Are Basic	1,500
Casa 0101 Inc	5,000
Casa Of Tulare County	3,000
Caterina's Club	4,000
Catholic Charities Of Los Angeles	52,500
Center For Asian Americans United For Self-Empowerment Inc	30,500
Center For Climate And Energy Solutions	10,000
Center For Financial Empowerment	2,500
Center For The Pacific Asian Family Inc	5,000
Center Theatre Group Of Los Angeles	6,000
Central City Neighborhood Partners	13,000
Charitable Fund Benefitting Gardena	2,000
Charitable Ventures Of Orangecounty Inc	3,500
Charles R. Drew University of Medicine & Science	5,000
Chief Special Agents Association Inc	1,500
Childhelp Inc	1,500
Childhood Cancer Foundation Of Southern California Inc	2,500
Childrens Museum Of The Sequoias Inc	2,500
Chinese For Affirmative Action	10,000
Chino Hills Community Foundation	1,000
Choc Foundation	5,000
Christian Methodist Episcopal Church	5,000
Christmas Cheer All-Year Program	1,250
Ciclaviva Inc	10,000
City of Moreno Valley	1,000
City Scholars Foundation	5,000
City Year Inc	2,500
Cityserve Network	2,500
CLARE Foundation, Inc.	5,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Climate Action Reserve	25,000
Climate Registry	52,500
Climate Resolve	6,000
Coachella Valley Economic Partnership	6,000
Coalition For Clean Air	40,200
Coalition For Responsible Community Development	15,000
Coastline Community College Foundation	1,000
Collaborative For Leadership In Ayres Sensory Integration	2,000
Columbia Memorial Space Science Learning Center Foundation	20,000
Comision Femenil Of The San Fernando Valley	1,000
Community Action Partnership Of Orange County	1,000
Community Action Partnership Of San Bernardino County	10,000
Community Coalition For Substance Abuse Prevention & Treatment	10,000
Community Family Guidance Center	2,410
Community Health Initiative of Orange County	500
Community Partners	174,500
Community Services & Employment Training Inc	500
Community Women Vital Voices Inc	6,000
Communitys Child Inc	45,000
Conejo Future Foundation	2,500
Constitutional Rights Foundation	10,000
Coro Southern California Inc	15,000
Corona Chamber Foundation	2,500
Council Of African American Parents	25,000
Council On Aging-Southern California Inc	1,000
Council On American-Islamic Relations California	10,000
County Of Los Angeles Fire Museum Association	1,000
Court Appointed Special Advocates Of Kern County	2,500
Covenant House California	35,000
Cover Now	2,450
Crafton Hills College Foundation	8,540
Crossroads Incorporated	500
CSULA Auxiliary Services Inc	28,000
CSULB 49Er Foundation	30,000
CSUSB Philanthropic Foundation	5,000
Cypress College Foundation Inc	3,500
Cystic Fibrosis Foundation	3,000
Danny's Farm Charitable Foundation	5,000
Delhi Center	1,500
Desert Aids Project	2,500
Desert Cancer Foundation	2,000
Destination Crenshaw	30,000
Diamond Bar Friends Of The Library	1,000
Discovery Science Center Of Los Angeles	26,000
DIY Girls	15,000
Dolores Mission Elementary School Parrochial	1,000
Downey-Guadalajara Sister City Corporation	500
Downtown Women's Center	10,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Duarte Community & Educational Foundation	1,900
East Los Angeles College Foundation	2,500
Eastmont Community Center	1,500
Eco Center Inc	41,000
Economic Alliance Foundation	2,500
Economic Development Corporation Of Los Angeles	30,000
El Camino Community College District Foundation	22,500
El Camino Homeless Organization	2,000
El Centro De Pueblo	5,000
El Concilio Family Services	6,300
El Nido Family Centers	2,500
El Proyecto Del Barrio Inc	2,500
El Rescate	500
Elemental Strings	1,000
Elysian Valley Arts Collective	10,000
Emerson Avenue Community Garden Club Inc	800
Endowment For Youth Committee	1,000
Energy Independence Now	46,500
Exceptional Childrens Foundation A Corp	5,000
Executive Service Corps Of Southern California	5,000
Faith And Community Empowerment	10,000
Families Forward	2,500
Family Assistance Ministries	1,500
Family Promise Of The Verdugos	2,500
Family Service Association Of Redlands	2,500
Ffma Inc	615
Fiesta Educativa Inc	5,000
Fiscal Sponsor 4 Good Inc	25,000
Fish Reef Project	2,500
Food In Need Of Distribution Inc	5,000
Foodlink For Tulare County Inc	5,000
Foodshare Inc	5,000
Foothill Unity Center	500
Forgiving For Living Inc	10,000
Foundation For Leadership California	11,500
Foundation For Pierce College	5,000
Foundation for Women At Risk	2,500
Foundation For Women Warriors	11,000
Friendly Center Inc	1,000
Friends Of Ballona Wetlands	10,000
Friends Of Cabrillo Marine Aquarium	37,500
Friends Of The Chinese American Museum	5,000
Friends Of The Commission For South Gate Youth Inc	500
Friends Of The Desert Mountains	11,000
Friends Of The Los Angeles River	2,500
Friends Of The Pomona Public Library	500
From Foster Care to Fabulous Foundation	3,000
Fulfillment Fund	10,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Future Talent Of Silicon Valley	16,500
Garden Pathways Inc	1,250
Gay & Lesbian Community Services Center Of Orange County	1,000
Generaciones Church	500
Girl Scouts Of Californias Central Coast	15,000
Girl Scouts Of Orange County	5,000
Girl Scouts Of San Gorgonio Council	2,000
Glendale Educational Foundation	1,000
Go Green Initiative Association	75,000
Goals For Life Foundation Inc	1,000
Gods Fan Club	1,210
Golden State Minority Foundation	279,862
Goodwill Industries Of Orange County Ca	10,000
Goodwill Industries Of Southern California	8,500
Goodwill Industries of Southern California	1,500
Governors Cup Foundation Inc	11,000
Great Minds In Stem	10,000
Greater L A African American Chamber Of Commerce Education Fund	78,500
Greater Riverside Chamber Foundation	5,000
Green Hydrogen Coalition	125,000
Gwcba	650
Habitat For Humanity International Inc	21,500
Habitat For Humanity-Riverside Inc	2,000
Hanford Multicultural Theater Company Inc	2,500
Happy Trails Riding Academy	5,000
Harbor Area Gang Alternatives	1,000
Hathaway-Sycamores Child And Family Services	2,450
Haven Hills Inc	5,000
Heart Of Compassion Distribution	3,000
Heel The Soul	5,000
Helping One Another Progress	10,000
Henry E Huntington Library & Art Gallery	2,500
Hermanidad Mexicana Nacional	5,000
Heroes Hall Veterans Foundation	1,500
Heroes Of Life	10,000
Hispanas Organized For Political Equality-California	50,000
Hoffmann Hospice Of The Valley Inc	1,000
Homeboy Industries	22,229
Homes For Families	2,500
Hope Of The Valley Rescue Mission	80,000
Hope Through Housing Foundation	30,500
Hourglass Project	2,500
Housing Works	10,000
Hub Cities Career Center Corporation	25,000
Human Services Association	75,000
Huntington Beach Central Park Conservancy Inc	2,500
Illumination Foundation	10,000
Immigrants Charitable Foundation	2,450

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Independent Cities Association Inc	12,500
Inglewood Community Services Corporation	3,000
Inland Counties Regional Center Inc	1,500
Inland Empire Economic Partnership Foundation	5,000
Inner City Child Development & Youth Foundation Inc	1,500
Innercity Struggle	2,500
Institute For Local Government	15,000
International Trade Education Programs Inc	1,500
Japanese American Cultural And Community Center	3,500
Journey Out	15,000
Jovenes Inc	10,000
Julius Guis Memorial Rotary Foundation	5,000
Junior Achievement Of Southern Ca	20,000
Jvs Social	20,000
Kern Economic Development Foundation	6,500
Kern Literacy Council	2,000
Kidworks Community Development Corporation	1,000
Kings Care Foundation	10,000
Kipp La Schools	2,000
Kiwanis Club Of Atascadero Foundation	2,500
Kiwanis Club Of Redondo Beach Foundation Inc	5,000
Korean American Coalition	5,000
Korean Health Education Information And Research Center	30,000
Koreatown Youth And Community Center Inc	12,500
L A Family Housing Corporation	40,000
LA's Best	11,000
La Casa Community Center	1,500
LA Compost	40,000
La Habra Meals On Wheels	1,000
La Plaza De Cultura Y Artes	6,000
Labor Community Services Program Of Los Angeles	8,000
LACBA Counsel For Justice	6,500
Lapd Devonshire Police Activity League Supporters	5,000
Latina Lawyers Bar Association	3,000
Latina Leaders Of Kern County	1,500
Latino And Latina Roundtable Of The San Gabriel And Pomona Valley	900
Latino Business Chamber Of Greater Los Angeles Foundation Inc	13,500
Latino Legislative Caucus Foundation	10,000
Latino Restaurant Association Foundation	45,000
Laundry Truck LA	15,000
LAX Coastal Education Foundation	56,405
Leadership Hermosa Beach	1,000
Leadership Long Beach Inc	5,000
Leadership Pasadena Inc	1,000
Library Foundation Of Los Angeles	5,000
Life Network Inc	2,500
Local Government Commission	2,500
Loma Linda University Childrens Hospital Foundation	500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Lomita Kiwanis Foundation	1,500
Los Angeles African American Womens Public Policy Institute	10,000
Los Angeles Alliance For A New Economy	2,500
Los Angeles Area Chamber Of Commerce Foundation	63,750
Los Angeles Brotherhood Crusade - Black United Fund Inc	50,000
Los Angeles Centers For Alcohol And Drug Abuse	5,000
Los Angeles City College Foundation	1,500
Los Angeles Conservation Corps	45,000
Los Angeles County Delegation Foundation	7,500
Los Angeles County Fire Department Explorer Program	2,000
Los Angeles County Museum Of Natural History Foundation	15,000
Los Angeles Crime Stoppers	2,500
Los Angeles Fire Department Foundation	40,000
Los Angeles Harbor College Foundation	25,000
Los Angeles LGBT Center	25,000
Los Angeles Mission Inc	10,000
Los Angeles Neighborhood Land Trust	40,000
Los Angeles Police Foundation	20,000
Los Angeles Regional Food Bank	5,000
Los Angeles Urban League	75,000
Los Angeles Waterkeeper	5,000
Los Cerritos Foundation	500
Love Them All Foundation	2,875
Loyola Marymount University	7,500
LTSC Community Development Corporation	10,000
Mana De Imperial Valley	12,500
Mar Vista Family Center	6,895
Mariachi Plaza Festival Foundation	2,500
Marine Toys For Tots Foundation	900
Mark Daniel Flores Music Foundation	500
Martin Luther King Jr Community Health Foundation	15,000
Mcfarland Usa Foundation	500
Mckinley Childrens Center Inc	5,000
Meal On Wheels Industry Inc	500
Meh Sports Clinics	1,800
Men With Vision Foundation	5,000
Mend-Meet Each Need With Dignity	5,000
Menifee Valley Boys & Girls Club	500
Mentally And Educationally Retarded Citizens Inc	500
Mexican American Opportunity Foundation	12,000
Michelle's Place Breast Cancer Resource Center	1,500
Midnight Mission	25,000
Mind Research Institute	5,000
Moneta Gardens Improvement Incorporated	1,000
Montebello Senior Californians Housing Corporation	1,000
Moreno Valley Community Foundation	6,000
Mothers Of East Los Angeles	6,200
Movement Strategy Center	500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
MOXI, The Wolf Museum of Exploration + Innovation	10,000
Mt San Jacinto College Foundation	1,500
Mujeres De La Tierra	10,000
Murrieta Rotary Foundation	1,000
Museum of African American Art	3,000
Museum Of Ventura County	10,000
Napa Communities Firewise Foundation	2,500
National Asian Pacific Center On Aging-NAPCA	5,000
National Association Of Minority Contractors	10,000
National College Resources Foundation	27,500
National Congress Of Black Women Inc	1,000
Neighborhood Homework House	1,500
New Way California Foundation	5,000
NGLCC Foundation	20,000
Noho Home Alliance	10,000
North East Trees Inc.	25,000
North Valley Caring Services	17,500
Northeast Community Clinic	3,000
Northeast Valley Health Corporation	2,500
Northern Santa Barbara County United Way Inc	2,000
Oak Grove Institute Foundation Inc	1,500
Oasis Companies International	2,500
Ocean Institute	7,500
Oceanographic Teaching Stations Inc	5,000
Ojai Raptor Center	3,000
Oneoc	20,000
Ontario Chamber Of Commerce Foundation	1,500
Ontario-Montclair Schools Foundation	4,500
Operation Progress Student Assistance Foundation Cal	5,000
Orange Country Conservation Corps	65,000
Orange County Asian And Pacific Islander Community Alliance Inc	15,500
Orange County Childrens Therapeutic Arts Center	750
Orange County Community Foundation	7,500
Orange County Current Affairs Forum	6,500
Orange County Education And Research Institute	2,500
Orange County Human Relations Council	10,000
Orange Countys United Way	1,000
Orangewood Foundation	10,000
Pacific Asian Consortium In Employment	15,000
Pacific Asian Counseling Services	5,000
Pacific Crest Youth Arts Organization	2,000
Palm Spring Gay Softball League	1,000
Palm Springs Cultural Center	5,000
Pasadena Community Access Corp	3,500
Path Of Life Ministries	5,000
Pepperdine University	1,500
Pinkard Youth Institute	2,500
PMSA Foundation	1,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Pomona Community Foundation	3,500
Pomona Pride Center Inc	750
Pomona Public Library Foundation	2,100
Pony-Colt Baseball Of Cypress Inc	1,000
Positive Results Center	7,500
Power Of One Foundation	500
Precious Life Shelter Inc	3,500
Project 2911 A Community Development Corporation	750
Project Angel Food	10,000
Proyecto Pastoral	15,000
R H Buckboard Days Parade	500
Rainbow Labs Mentoring Inc	2,500
Rancho Cucamonga Public Library Foundation	1,500
Rancho Los Amigos Foundation Inc	2,500
RBD Communications	5,000
Redlands Community Foundation	5,000
Redlands Community Music Association Inc	4,000
Redlands High School Vocal Music Boosters	1,000
Redondo Beach Educational Foundation	5,000
Redondo Beach Youth Football	2,000
Redwood Forest Foundation Inc	1,500
Regents Of The University Of California	25,000
Regents of the University of California at Irvine	60,000
Regents University Of California Los Angeles	6,000
Regional Hispanic Institute	7,500
Reimagine La Foundation	40,000
Rescue Mission Alliance	10,000
Reynaldo J Carreon M D Foundation	1,500
Rickery Hinds Phd	500
Rise San Luis Obispo County	1,250
Rivers & Lands Conservancy	1,500
Riverside County Coalition For Alternatives To Domestic Violence	1,500
Riverside County Parks Foundation	5,000
Riverside County Works	1,000
Riverside National Cemetary Support Committee	2,500
Ronald Mcdonald House Charities Of Southern California	2,500
S T R E A M Global Innovations Inc	2,510
SAAHAS FOR CAUSE	5,000
Salt And Light Works	7,500
San Bernardino County Museum Assoc 2022 Orange Tree Ln	500
San Bernardino County Safety Employees Benefit Assoc Charity	5,000
San Bernardino Valley College Foundation	25,000
San Diego State University Foundation	40,000
San Fernando Valley Community Foundation Inc	2,500
Santa Ana College Foundation	2,500
Santa Barbara Firefighters Alliance	2,500
Santa Barbara Foresters	1,500
Santa Barbara Foundation	3,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Santa Barbara Maritime Museum	5,000
Santa Barbara Zoological Foundation	2,500
Santa Clarita Valley Boys And Girls Club	7,500
Santa Clarita Valley Committee On Aging Inc	2,000
Santa Clarita Valley Economic Development Corporation	7,240
Santa Clarita Valley Education Foundation	2,250
Santa Ynez Valley Humane Society	1,000
Scholarship America Inc	149,000
Second Harvest Food Bank Of Orange County Inc	5,000
Seven Point Inc	5,000
Shelter Partnership Inc	500
Shelter Providers Of Orange County Inc	17,500
Sigma Beta Xi Inc	3,500
Sister Cities International Southern California Chapter Inc	5,000
Soboba Band Of Luiseno Indians	5,000
Social & Environmental Entrepreneurs SEE Inc.	2,500
Social And Environmental Entrepreneurs Inc	5,000
Society Of Extraordinary Women Inc	25,000
Society Of Hispanic Professional Engineers	15,000
Soroptimist International Of The Americas Inc	1,000
South Bay Workforce Investment Board Inc	27,000
South County Outreach	20,000
Southeast Community Development Corporation	25,000
Southern California Center for Nonprofit Management	17,000
Southern California Grantmakers	8,500
Southern California Indian Center Inc	25,000
Southern California Leadership Network	65,000
Southern California Minority Supplier Development Council Inc	30,000
Southern California Rehabilitation Services Incorporated	20,000
Southern California Water Coalition	5,000
Southland Regional Association Of Realtors Foundation	5,000
Southwest Voter Registration Education Project Inc	5,000
Sowing Seeds For Life	500
Special Service for Groups	5,000
Speech And Language Development Center Inc	5,000
Spirit Life Community Ch Of The Assemblies Of God	1,500
Spiritt Family Services	1,500
St Francis Center	5,000
St Jude Hospital	10,000
St Margaret Of Scotland Episcopal School	500
Star 6 Foundation	1,500
Stella Adler Studio Of Acting	2,500
Student Body Of Brea Olinda High School	500
Student Of The Month Program Inc	1,500
Surfearnegra	1,500
Taft College Foundation	1,250
Taras Chance	1,000
Telacu Education Fountation	50,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Tenemos Que Reclamar Y Unidos Salvar La Tierra-South La	36,923
Thank A Vet Inc	1,750
The Association Of Women In Water Energy And Environment Inc	6,700
The Chrysalis Center	16,000
The City Of Diamond Bar Community Foundation	2,250
The College Of The Canyons Foundation	2,000
The Dominguez Dream In Memory Of H Frank Dominguez	5,000
The Joe Torre Safe At Home Foundation	5,000
The Learning Centers At Fairplex	25,000
The Leukemia & Lymphoma Society, Inc.	5,000
The Los Angeles County Alliance For Boys And Girls Clubs	5,000
The Los Angeles Valley College Foundation	5,000
The Salvation Army	36,000
The Spectrum Works Inc	5,000
The Translatin Coalition	5,000
The UCLA Foundation	2,000
The Valley Economic Alliance	15,000
The Whole Child-Mental Health & Housing Services	1,500
The Wildfire Conservancy	25,000
The Young Serving All Mankind Our Alofa Samoa	5,000
The@Bo And Arrow Group	1,000
Tia Chuchas Centro Cultural Inc	15,000
Treepeople Inc	17,500
Trust For Public Land	40,000
Tule Basin Land And Water Conservation Trust	500
Tule River Indian Health Center Inc	15,000
Tustin Community Foundation	2,500
U C Riverside Foundation	15,000
Union Station Homeless Services	15,000
United American Indian Involvement	20,000
United Boys And Girls Clubs Of Greater Santa Barbara County	2,500
United Latino Fund	1,029
United Service Organizations Inc	25,000
United States Veterans Initiative	5,000
United Way Of Tulare County	500
United Way Of Ventura County Inc	6,500
United Way, Inc.	637,000
Unity Shoppe Inc	2,750
University Of California Irvine Foundation	12,500
University Of Southern California	37,500
USGBC Los Angeles Chapter	5,000
Valley Community Healthcare	5,000
Valley Family Center	5,000
Variety Boys And Girls Club	1,000
Vc Colab Foundation	25,000
Vecinos De South Pasadena	500
Ventura County Civic Alliance	1,000
Ventura County Community Development Corporation	2,500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
Ventura County Leadership Academy Inc	2,500
Ventura Land Trust	30,000
Veterans In Business Network	16,500
Veterans Legal Institute	1,500
Veterans Outreach Inc	2,500
Vetfund Foundation	10,000
Via Care Community Health Center	10,500
Visalia Economic Development Corporation	1,000
Visalia Emergency Aid Council	5,000
Vision To Learn	15,000
Vision Visalia Foundation	3,150
Wall-Las Memorias Project	5,000
Walnut Valley Educational Foundation Inc	500
Warrior Dog Foundation	1,500
West Coast Section Air & Waste Management Association Inc	1,500
West End Ymca	750
West Los Angeles College Foundation	11,500
West Valley Boys & Girls Club	1,500
White Memorial Medical Center Charitable Foundation	20,000
Womanhaven	1,000
Women In California Leadership Inc	17,500
WRCOG Supporting Foundation	5,000
YMCA Of Greater Whittier	1,665
YMCA Of The East Valley	1,000
Yorba Linda Womans Club	500
Young Life	1,500
Young Men Christian Association Of West San Gabriel Valley	2,500
Young Mens Christian Association Of Anaheim	5,000
Young Mens Christian Association Of Glendale	2,500
Young Mens Christian Association Of Greater Long Beach	500
Young Mens Christian Association Of Metropolitan Los Angeles	92,000
Young Visionaries Youth Leadership Academy	7,500
Young Womens Christian Association Of Greater Los Angeles California	25,000
Youth Action Project	32,985
Youth Educational Sport Scholarships	500
Youth Hope Foundation	1,000
YWCA Of Glendale California	2,500
 TOTAL	 17,940,400

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

3. NON - CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED: 426
Alhambra Chamber Of Commerce	2,150
American Gas Association	39,999
Antelope Valley Chambers Of Commerce	550
Asian Business Association Of Los Angeles Inc	16,000
Asian Business Association Of The Inland Empire Inc	1,100
Azusa Chamber Of Commerce	2,094
Banning Chamber Of Commerce	1,350
Beaumont Chamber Of Commerce A Corp	800
Bellflower Chamber Of Commerce Inc	800
Beverly Hills Chamber Of Commerce & Civic Association	1,925
Bioenergy Association Of California	30,000
Black Chamber Of Commerce Of Orange County	5,000
Brawley Chamber Of Commerce Inc	1,630
Building Industry Association Of Southern California Inc	122,525
Burbank Chamber Of Commerce	2,330
Calabasas Chamber Of Commerce	1,875
California Asian Pacific Chamber Of Commerce	10,000
California Building Industry Association	10,000
California Business Properties Association	5,000
California Carbon Capture Coalition	50,000
California Chamber Of Commerce	10,000
California Chapter American Planning Association	2,500
California Chinese-American Assoc Of Construction Professionals	8,500
California Contract Cities Association	20,000
California Council For Environmental And Economic Balance	124,500
California Hydrogen Business Council	44,500
California Issues Forum	25,000
California Manufacturers And Technology Association	8,250
California Minority Counsel Program	5,000
California Nations Indian Gaming Association	4,500
California Natural Gas Vehicle Coalition	14,300
California Retailers Association	2,500
Calimesa Chamber Of Commerec	625
Calstart Inc	258
Camarillo Chamber Of Commerce	1,050
Central City Assoc Of Los Angeles	19,880
Central Union High School District	1,000
Central Valley Business Federation	50,000
Century City Chamber Of Commerce	600
Cerritos Chamber Of Commerce	1,500
Chamber Of Commerce And Civic Association Of Pasadena	13,560
Chamber Of Commerce Of Greater Bakersfield	2,405
Chamber Of Commerce San Luis Obispo	990
Chamber Of The Chino Valley	3,150
Chatsworth Porter Ranch Chamber Of Commerce	6,500
Chinese-American Elected Officials Inc	888

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

3. NON - CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED: 426
City of Brea	1,500
City of Culver City	500
City of El Centro	1,500
City of El Monte	2,000
City of Maywood	50,510
City of Montebello	500
City of Monterey Park	500
City of Orange	1,000
City of Pico Rivera	50,000
City of San Fernando	50,000
City of San Gabriel	2,500
City of Yorba Linda	19,000
City of Yucaipa	2,500
Civil Justice Association Of California	27,500
Claremont Chamber Of Commerce	1,200
Coalition For Renewable Natural Gas	17,000
Coalition Of Labor Agriculture & Business Of San Luis Obispo County	2,600
Coalition Of Labor Agriculture & Business Of Santa Barbara County	2,350
Colton Chamber Of Commerce	500
Corona Chamber Of Commerce	8,618
Costa Mesa Chamber Of Commerce	850
Covina Chamber Of Commerce	1,380
Crenshaw Chamber Of Commerce	3,000
Culver City Chamber Of Commerce	2,080
Cypress Chamber Of Commerce	2,800
Dana Point Chamber Of Commerce	1,385
Delano District Chamber Of Commerce	550
Desert Business Association	3,500
Desert Valleys Builders Association	2,500
Downey Chamber Of Commerce	1,610
Duarte Chamber Of Commerce	4,324
Eastvale Chamber Of Commerce	850
Economic Development Coalition	4,000
El Centro Chamber Of Commerce	1,478
Fontana Chamber Of Commerce	2,400
Fountain Valley Chamber Of Commerce	3,432
Fullerton Chamber Of Commerce	3,000
Futureports	10,000
Garden Grove Chamber Of Commerce	849
Gardena Valley Chamber Of Commerce	600
Gateway Chambers Alliance Inc	500
Glendale Chamber Of Commerce	1,170
Glendora Chamber Of Commerce	2,000
Goleta Valley Chamber Of Commerce	5,800
Greater Boyle Heights Chamber Of Commerce	500
Greater Conejo Valley Chamber Of Commerce	952

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

3. NON - CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED: 426
Greater Fresno Area Chamber Of Commerce	2,500
Greater Irvine Chamber Of Commerce	5,500
Greater Lakewood Chamber Of Commerce	1,620
Greater Mennifee Valley Chamber Of Commerce	2,050
Greater Monterey Park Chamber Of Commerce	500
Greater Riverside Chamber Of Commerce	11,300
Greater San Fernando Valley Chamber Of Commerce	3,395
Hanford Chamber Of Commerce	700
Harbor Association Of Industry & Commerce	3,500
Harbor Trucking Association	1,800
Hemet San Jacinto Valley Chamber Of Commerce	2,154
Hollywood Chamber Of Commerce	3,050
Huntington Beach Chamber Of Commerce	1,025
Huntington Park Chamber Of Commerce	500
Imperial Valley Economic Development Corporation	7,500
Indio Chamber Of Commerce	1,000
Industrial Council Of The City Of Commerce	785
Industry Business Council And Chamber Of Commerce	2,000
Inglewood Airport Area Chamber Of Commerce	1,125
Inland Empire Economic Partnership	15,000
Irwindale Chamber Of Commerce Inc	1,500
Jurupa Valley Chamber Of Commerce	1,500
Kern County Black Chamber Of Commerce (KCBCC)	600
Kern County Hispanic Chamber Of Commerce Incorporated	500
Kern County Taxpayers Association	3,500
Kern Economic Development Corporation	10,000
Kings County Economic Development Corp	3,750
Kiwanis International Inc	500
La Verne Chamber Of Commerce	1,000
Laguna Beach Chamber Of Commerce	500
Lake Elsinore Valley Chamber Of Commerce	2,375
Lake Forest Chamber Of Commerce Inc	1,250
Latin Business Association Inc	15,000
Latino Chamber Of Commerce	790
LAX Coastal Area Chamber Of Commerce	6,745
League of California Cities	33,250
League of California Cities - Latino Caucus	7,500
Lemoore District Chamber Of Commerce	1,500
Lomita Chamber Of Commerce Inc	800
Long Beach Area Chamber Of Commerce	15,000
Long Beach Community Business Network Inc	3,000
Los Alamitos Chamber Of Commerce	2,250
Los Angeles Business Council	5,000
Los Angeles County Business Federation	57,500
Los Angeles Gateway Chamber Of Commerce	800
Malibu Chamber Of Commerce	550

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

3. NON - CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED: 426
Manhattan Beach Chamber Of Commerce	3,145
Mckittrick Elementary School	500
Mobility 21	17,000
Monrovia Chamber Of Commerce	840
Moorpark Chamber Of Commerce	650
Moreno Valley Chamber Of Commerce	2,010
Mountains Recreation & Conservation Authority	10,000
Murrieta Chamber Of Commerce	2,600
Murrieta-Temecula Group	555
National Association For The Advancement Of Colored People	500
NAWBO-California	27,500
Newport Beach Chamber Of Commerce	500
North Of The River Chamber Of Commerce	1,750
North Redondo Beach Business	2,500
North Valley Regional Chamber Of Commerce	1,500
Norwalk Chamber Of Commerce	1,540
Ojai Valley Chamber Of Commerce	590
Ontario Chamber Of Commerce	5,000
Orange Chamber Of Commerce	1,500
Orange County Business Council	24,100
Orange County Taxpayers Association	5,000
Palm Desert Area Chamber Of Commerce	545
Palos Verdes Peninsula Chamber Of Commerce	500
Paramount Chamber Of Commerce	1,295
Pasadena-Foothills Association of Realtors	5,000
Perris Valley Chamber Of Commerce	2,150
Pico Rivera Chamber Of Commerce Inc	1,700
Placentia Chamber Of Commerce	570
Placita Santa Fe Merchants Association Inc	1,750
Pomona Chamber Of Commerce	1,500
Pomona Unified School District	901
Rancho Cucamonga Chamber Of Commerce	1,895
Rancho Mirage Chamber Of Commerce	3,525
Redlands Chamber Of Commerce	2,055
Redondo Beach Chamber Of Commerce	870
Regional Black Chamber Of Commerce San Fernando Valley	1,500
Regional Chamber Of Commerce - San Gabriel Valley	750
Regional Hispanic Chamber Of Commerce	2,500
Renewable Hydrogen Alliance	10,000
Riverside County Economic Development Agency	1,000
Rosemead Chamber Of Commerce	1,680
Rotary International	500
RSM Chamber Of Commerce	500
Sacramento Rainbow Chamber of Commerce	1,500
San Bernardino Chamber Of Commerce	690
San Bernardino County	5,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2021**

3. NON - CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED: 426
San Clemente Chamber Of Commerce	1,114
San Dimas Chamber Of Commerce	2,080
San Fernando City Chamber Of Commerce	500
San Gabriel Valley Commerce And Cities Consortium	9,500
San Gabriel Valley Public Affairs Network	1,000
San Juan Capistrano Chamber Of Commerce	900
San Pedro Chamber Of Commerce	1,500
Santa Ana Chamber Of Commerce	1,305
Santa Barbara Contractors Association Inc	1,300
Santa Barbara County Taxpayers Association Inc	590
Santa Clarita Valley Chamber Of Commerce	3,900
Santa Fe Springs Chamber Of	1,440
Santa Maria Valley Chamber Of Commerce	1,015
Santa Paula Chamber Of Commerce	575
Shafter Chamber Of Commerce	750
Sierra Madre Chamber Of Commerce	500
Simi Valley Chamber Of Commerce	920
South Bay Assn Of Chambers Of Commerce	2,500
South Bay Cities Council of Governments	2,500
South Gate Chamber Of Commerce A Corp	500
South Orange County Chamber Of Commerce	3,500
Southern California Air Quality Alliance	4,000
SunLine Transit Agency	5,000
Sustain SoCal	2,500
Temecula Chamber Of Commerce	3,175
The California Business Roundtable	30,000
The California Homebuilding Foundation	500
The Greater Coachella Valley Chamber Of Commerce	2,500
The Latino Caucus of California Counties	12,500
The Natural Gas Vehicle Coalition	4,002
Theodore Roosevelt Senior High School	8,000
Torrance Chamber Of Commerce	3,740
Tri-County Chamber Alliance	3,000
Tulare Chamber Of Commerce	1,000
Tulare County Economic Development Corporation	2,500
Tulare-Kings Hispanic Chamber Of Commerce Incorporated	1,000
Tustin Chamber Of Commerce	1,000
United Chambers Of Commerce Of The San Fernando Valley	7,500
Upland Chamber Of Commerce	1,180
Valley Business Alliance Inc	14,500
Valley Industry & Commerce Assoc Warner Center Plaza 1	45,000
Venice Chamber Of Commerce	2,095
Ventura Chamber Of Commerce Inc	5,500
Ventura County Coalition Of Labor Agriculture And Business	6,500
Ventura County Economic Development Association	1,700
Ventura County Taxpayers Association Inc	3,000

Exhibit L

**SOUTHERN CALIFORNIA GAS COMPANY
PURSUANT TO CPUC GENERAL ORDER NO. 77- M
FOR THE YEAR ENDED DECEMBER 31, 2022**

REDACTED VERSION

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NOTE: Per the requirements of GO 77-M Utilities (those with over \$1 billion annual operating revenues) are directed to include an internet site-link to all publicly available documents filed with the Securities and Exchange Commission (SEC) and with the California Public Utilities Commission that relate to executive compensation. Southern California Gas Company's links are:

<https://investor.sempra.com/sec-filings>

<http://www.socalgas.com/regulatory/cpuc.shtml>

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

	<u>TOTAL</u>
1. MEMBERSHIPS - DUES & SUBSCRIPTIONS	\$ 3,277,953
2. CHARITABLE DONATIONS	12,413,229
3. NON-CHARITABLE CONTRIBUTIONS	1,576,117
TOTAL	<u><u>\$ 17,267,299</u></u>

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
AIR AND WASTE MANAGEMENT ASSOCIATION	824	195
	908	195
	921	195
ALLIANCE TO SAVE ENERGY	426	30,000
AMERICAN ASSOCIATION OF BLACKS IN ENERGY	163	225
	870	225
	903	250
	921	250
AMERICAN BOARD OF TRIAL ADVOCATES	921	825
AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS	925	1,064
AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY	908	17,000
AMERICAN GAS ASSOCIATION	930	933,957
AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS	903	550
	921	1,695
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS	188	15,000
	814	244
	850	219
	930	597
AMERICAN PETROLEUM INSTITUTE	814	730
	850	2,080
	901	625
AMERICAN PLANNING ASSOCIATION	921	1,488
AMERICAN SOCIETY FOR TESTING AND MATERIALS	850	75
	870	300
	908	225
	930	225
AMERICAN SOCIETY OF CIVIL ENGINEERS	850	1,567
	870	563
	921	255
AMERICAN SOCIETY OF MECHANICAL ENGINEERS	107	316
	850	217
	870	202
	921	86
	930	292
AMERICAN SOCIETY OF SAFETY PROFESSIONALS	925	665

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
AMERICAN WELDING SOCIETY	107	889
	108	11
	850	1,298
	870	177
	930	266
ASSOCIATION FOR MATERIALS PROTECTION AND PERFORMANCE	107	265
	814	5,118
	817	365
	824	290
	833	75
	850	23,393
	856	150
	870	8,298
	880	675
	908	475
	921	75
ASSOCIATION FOR THE WORK TRUCK INDUSTRY	184	690
ASSOCIATION OF CHANGE MANAGEMENT PROFESSIONALS	921	2,346
ASSOCIATION OF ENERGY ENGINEERS	814	78
	850	346
	870	71
	908	1,690
	930	545
ASSOCIATION OF WORKPLACE INVESTIGATORS	921	1,125
BIOENERGY ASSOCIATION OF CALIFORNIA	921	22,000
BOARD FOR GLOBAL EHS CREDENTIALING	925	680
BUILDING INDUSTRY ASSOCIATION	908	2,000
CALIFORNIA ALLIANCE OF SMALL BUSINESS ASSOCIATIONS	426	6,000
CALIFORNIA ASPHALT PAVEMENT ASSOCIATION	908	750
CALIFORNIA ASSOCIATION OF BUILDING ENERGY CONSULTANTS	908	750
CALIFORNIA BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS	107	540
	163	360
	814	792
	815	180
	824	180
	850	7,731
	870	2,764
	875	180
	880	540
	908	360

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
	921	2,515
	930	355
CALIFORNIA BOARD OF ACCOUNTANCY	880	250
	903	500
	921	2,849
	923	12
CALIFORNIA COALITION ON WORKERS' COMPENSATION	925	5,000
CALIFORNIA CRAFT BREWERS ASSOCIATION	426	925
CALIFORNIA FUEL CELL PARTNERSHIP	908	70,000
CALIFORNIA HYDROGEN BUSINESS COUNCIL	921	18,000
CALIFORNIA LEAGUE OF FOOD PRODUCERS	908	545
CALIFORNIA METALS COALITION	908	1,950
CALIFORNIA NATURAL GAS VEHICLE COALITION	910	60,775
CALIFORNIA NATURAL GAS VEHICLE PARTNERSHIP	921	12,500
CALIFORNIA SELF-INSURERS ASSOCIATION	925	990
CALIFORNIA SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS	903	3,945
	921	3,005
CALIFORNIA STORMWATER QUALITY ASSOCIATION	923	7,490
CALIFORNIA TRUCKING ASSOCIATION	910	1,052
CALIFORNIA UTILITIES EMERGENCY ASSOCIATION	925	23,990
CALIFORNIA WATER EFFICIENCY PARTNERSHIP	908	5,000
CALSTART, INC.	908	24,839
CITY CLUB LOS ANGELES	426	5,224
CLUB 33	426	14,250
COALITION FOR RENEWABLE NATURAL GAS, INC.	921	18,000
COMMON GROUND ALLIANCE	921	25,000
CONFERENCE OF CALIFORNIA PUBLIC UTILITY COUNSEL	921	775
CPA QUEBEC	921	583
DARCY PARTNERS, LLC	188	140,000
DEPARTMENT OF CONSUMER AFFAIRS	908	250

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
	921	500
	930	1,280
DISABILITY MANGEMENT EMPLOYER COALITION	925	530
DOW JONES & COMPANY, INC.	921	49,600
EMPLOYERS FRAUD TASK FORCE	925	500
ENERGY SOLUTIONS CENTER, INC.	908	39,440
ENVIROCERT INTERNATIONAL, INC.	921	365
	930	175
GAS CERTIFICATION INSTITUTE	903	1,195
GAS MACHINERY RESEARCH COUNCIL	930	4,000
GLOBAL CCS INSTITUTE	908	28,000
GROUP OF ORGANIZATIONAL EFFECTIVENESS	921	9,300
HYDROGEN COUNCIL	908	20,996
INFORMATION SYSTEMS AUDIT AND CONTROL ASSOCIATION	921	895
INSTITUTE FOR SUPPLY MANAGEMENT	163	20,000
INSTITUTE OF MECHANICAL ENGINEERS	814	507
INSTITUTE OF SUPPLY MANAGEMENT	163	589
INTERNATIONAL ACCREDITATION SERVICE	908	3,100
INTERNATIONAL ASSOCIATION OF PRIVACY PROFESSIONALS	903	550
INTERNATIONAL RIGHT OF WAY ASSOCIATION	814	250
	880	980
	930	4,555
INTERNATIONAL SOCIETY OF AUTOMATION	824	340
	870	130
	875	130
LOS ANGELES COUNTY BAR ASSOCIATION	921	700
MAJOR MAILERS ASSOCIATION	903	2,000
NATIONAL COUNCIL OF EXAMINERS FOR ENGINEERING AND SURVEYING	850	375
	870	175
	921	550
	930	175
NATURAL GAS VEHICLES FOR AMERICA	426	8,470

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
	910	41,356
NEW HAMPSHIRE BAR ASSOCIATION	921	1,125
NORTH AMERICAN ENERGY STANDARDS	850	8,000
NORTH AMERICAN GAS HEAT PUMP COLLABORATIVE	908	50,000
NORTHEAST GAS ASSOCIATION	930	72,250
OPERATIONS TECHNOLOGY DEVELOPMENT	930	690,000
PEAK LOAD MANAGEMENT ALLIANCE	908	2,450
PIPELINE ASSOCIATION FOR PUBLIC AWARENESS	909	8,498
PIPELINE RESEARCH COUNCIL INTL, INC.	930	148,147
PROJECT MANAGEMENT INSTITUTE	107	115
	108	14
	163	497
	814	457
	850	322
	870	564
	880	686
	903	349
	905	189
	908	477
	921	629
	923	3
	930	677
SOCIETY FOR HUMAN RESOURCE MANAGEMENT	908	229
	921	2,151
	930	229
SOCIETY FOR INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY	426	320
	921	480
	923	160
SOCIETY OF PETROLEUM ENGINEERS	107	110
	807	220
	814	695
	850	135
	921	110
	930	55
SOUTHERN CALIFORNIA ALLIANCE OF PUBLICLY OWNED TREATMENT WORKS	908	1,076
THE CALIFORNIA CLUB	426	9,428
THE CONFERENCE BOARD	921	12,500
	930	12,500

SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	921	6,000
	928	1,500
THE STATE BAR OF CALIFORNIA	850	510
	921	22,907
	928	990
THE TRUSTEESHIP	426	700
TULARE COUNTY FARM BUREAU	908	2,500
UNIVERSITY OF COLORADO BOULDER	930	15,000
UTILIZATION TECHNOLOGY DEVELOPMENT	188	350,000
WAVELENGTH AUTOMATION, INC.	921	2,148
WESTERN ENERGY INSTITUTE	921	49,399
WORLD AT WORK	921	1,060
Total		3,277,953

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
1IN3OUT INC	1,500
2020 WOMEN ON BOARDS	10,000
ACADEMY OF SPECIAL DREAMS FOUNDATION	1,000
ALL PEOPLES COMMUNITY CENTER	5,000
ALMA FAMILY SERVICES	5,000
ALTASEA AT THE PORT OF LOS ANGELES	15,000
AMERICAN ASSOCIATION OF BLACKS IN ENERGY (AABE)	40,000
AMERICAN ASSOCIATION OF BLACKS IN ENERGY - CALIFORNIA CHAPTER	5,000
AMERICAN CANCER SOCIETY INC	1,500
AMERICAN CANCER SOCIETY, CALIFORNIA DIVISION (MAIN OFFICE)	27,500
AMERICAN CAREER COLLEGE EDUCATIONAL FOUNDATION	2,500
AMERICAN DIABETES ASSOCIATION - LOS ANGELES	7,500
AMERICAN GAS FOUNDATION	40,000
AMERICAN INDIAN CHAMBER EDUCATION FUND	1,000
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS	5,000
AMERICAN PUBLIC WORKS ASSOCIATION	656
AMERICAN PUBLIC WORKS ASSOCIATION - SOUTHERN CALIFORNIA CHAPTER	1,000
AMERICAN YOUTH SOCCER ORGANIZATION	1,250
ANAHEIM FAMILY YMCA	3,000
ANGELS' CLOSET CHARITIES	1,000
ANTELOPE VALLEY BOYS & GIRLS CLUB	2,500
ANTELOPE VALLEY YMCA	5,100
ARCADIA IMPROVEMENT ASSOCIATION	1,500
ARTS CONNECTION	2,000
ASIAN YOUTH CENTER	2,500
ASSISTANCE LEAGUE OF SAN BERNARDINO	1,500
ASSOCIATION OF CALIFORNIA CITIES	20,000
ATASCADERO PRINTERY FOUNDATION	1,500
AVENAL HISTORICAL SOCIETY	2,500
BADGE OF HEART	3,700
BEACON HOUSE ASSOCIATION OF SAN PEDRO	3,000
BIENESTAR HUMAN SERVICES	2,500
BIENVENIDOS COMMUNITY HEALTH CENTER	500
BIG BROTHERS & BIG SISTERS OF CENTRAL CALIF	2,500
BIG SUNDAY	2,500
BIZFED INSTITUTE	5,000
BLACK BUSINESS ASSOCIATION - LOS ANGELES	7,500
BLACK CONTRACTORS ASSOCIATION	3,000
BLACK HISTORY MONTH COMMITTEE OF RIVERSIDE	1,500
BLACK VOICE FOUNDATION	2,000
BLACK WOMEN LAWYERS ASSOCIATION OF LOS ANGELES	5,000
BOB MORETTI MEMORIAL SCHOLARSHIP FOUNDATION	5,000
BOLSA CHICA CONSERVANCY	2,500
BOYS AND GIRLS CLUB OF FONTANA	2,000
BOYS AND GIRLS CLUB OF WHITTIER	2,500
BOYS AND GIRLS CLUB OF CAPISTRANO VALLEY	1,000
BOYS AND GIRLS CLUB OF HUNTINGTON VALLEY	1,250
BOYS AND GIRLS CLUB OF REDLANDS	2,500
BOYS AND GIRLS CLUB OF THE SAN GORGONIO PASS	3,500
BOYS AND GIRLS CLUB OF WEST SAN GABRIEL VALLEY	2,000
BOYS AND GIRLS CLUBS OF GREATER ANAHEIM-CYPRESS	5,000
BOYS AND GIRLS CLUBS OF GREATER CONEJO VALLEY INC	2,500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
BOYS AND GIRLS CLUBS OF KERN COUNTY	10,750
BOYS AND GIRLS CLUB OF LAGUNA BEACH	700
BOYS AND GIRLS CLUB OF THE LOS ANGELES HARBOR	2,500
BOYS AND GIRLS CLUB OF SANTA ANA INC	1,000
BOYS AND GIRLS CLUB OF SANTA BARBARA	2,500
BOYS AND GIRLS CLUB OF VENTURA	10,000
BOY'S REPUBLIC	4,250
BREA OLINDA HIGH SCHOOL ASSOCIATED STUDENT BODY	500
BREAST CANCER RESOURCE CENTER OF SANTA BARBARA	2,500
BRENTWOOD SCHOOL	1,000
BROTHERS OF THE DESERT CORPORATION	1,500
BURBANK TEMPORARY AID CENTER INC	1,250
CALIFORNIA CENTER FOR PUBLIC POLICY	1,250
CALIFORNIA CITY MANAGEMENT FOUNDATION	1,250
CALIFORNIA COMMUNITY FOUNDATION	10,000,000
CALIFORNIA COUNTIES FOUNDATION INC	4,000
CALIFORNIA FEDERATION OF WOMENS CLUBS	500
CALIFORNIA FEDERATION OF WOMENS CLUBS/ DIAMOND BAR WOMAN'S CLUB	500
CALIFORNIA FOUNDATION ON THE ENVIRONMENT AND THE ECONOMY	19,000
CALIFORNIA GREENWORKS INC	5,000
CALIFORNIA INSTITUTE OF TECHNOLOGY	4,000
CALIFORNIA LATINO LEADERSHIP INSTITUTE	10,000
CALIFORNIA LEGISLATIVE BLACK CAUCUS POLICY INSTITUTE	37,500
CALIFORNIA MARINE SANCTUARY FOUNDATION	1,000
CALIFORNIA PRESS FOUNDATION	10,000
CALIFORNIA RESTAURANT ASSOCIATION EDUCATION FOUNDATION	500
CALIFORNIA SCIENCE CENTER FOUNDATION	25,000
CALIFORNIA STATE PARKS FOUNDATION	10,000
CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS FOUNDATION	2,500
CALIFORNIA STATE UNIVERSITY FULLERTON	9,000
CALIFORNIA STATE UNIVERSITY, LOS ANGELES, CSULA AUXILIARY SERVICES INC	2,750
CALMATTERS	5,000
CAROL'S KITCHEN	1,000
CENTER FOR CLIMATE AND ENERGY SOLUTIONS	10,000
CENTRAL CITY NEIGHBORHOOD PARTNERS	4,000
CENTRAL COAST JUNIOR GOLF INC	1,250
CERRITOS 1ST COMBAT ENGINEER BATTALION ADOPTION COMMITTEE	1,000
CESAR E. CHAVEZ FOUNDATION, NATIONAL CHAVEZ CENTER	2,500
CHAPMAN UNIVERSITY	5,000
CHARITABLE FUND BENEFITTING GARDENA	5,000
CHARITABLE VENTURES OF ORANGE COUNTY INC	9,000
CHARTER OAK PARTNERS IN EDUCATION	500
CHILD & FAMILY CENTER	4,000
CHILDHOOD CANCER FOUNDATION OF SOUTHERN CALIFORNIA	1,500
CHILDREN'S BUREAU OF SOUTHERN CALIFORNIA - HEADQUARTERS	1,250
CHILDREN'S FUND INC	5,000
CHINO HILLS COMMUNITY FOUNDATION	1,000
CHINO POLICE OFFICERS FOUNDATION	1,000
CHOC FOUNDATION DBA CHOC CHILDREN'S FOUNDATION	1,000
CHRISTMAS CHEER ALL-YEAR PROGRAM	1,250
CHRYSLIS CENTER	6,000
CITY OF MORENO VALLEY, MORENO VALLEY COMMUNITY FOUNDATION	2,500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
CITYSERVE NETWORK	2,500
CLIMATE REGISTRY	22,800
COACHELLA VALLEY ECONOMIC PARTNERSHIP	7,750
COLAB FOUNDATION	1,500
COLLEGE OF THE SEQUOIAS FOUNDATION	3,000
COMISION FEMENIL SAN FERNANDO VALLEY	5,000
COMMUNITY ACTION PARTNERSHIP OF ORANGE COUNTY	2,500
COMMUNITY ADVOCATES FOR PEOPLE CHOICES (CAPC)	2,500
COMMUNITY COALITION	5,000
COMMUNITY HEALTH INITIATIVE OF ORANGE COUNTY	500
COMMUNITY PARTNERS FOR AABLI	5,000
COMMUNITY PARTNERS	5,000
COMMUNITY SENIOR SERVICE INC	1,000
COMMUNITY WOMEN VITAL VOICES INC	6,000
COMMUNITYS CHILD INC	4,000
CONEJO FUTURE FOUNDATION	2,500
CONSTITUTIONAL RIGHTS FOUNDATION	25,000
CORCORAN COMMUNITY FOUNDATION	1,650
COUNCIL ON AGING-SOUTHERN CALIFORNIA INC	2,500
COUNCIL ON ALCOHOLISM AND DRUG ABUSE	1,500
COURT APPOINTED SPECIAL ADVOCATES OF KERN COUNTY	2,500
COVINA ROTARY CHARITIES	500
CRAFTON HILLS COLLEGE FOUNDATION	7,500
CULTIVALA INC	20,000
CYPRESS COLLEGE FOUNDATION	1,500
CYPRESS POLICE FOUNDATION	1,500
DELHI COMMUNITY CENTER	1,500
DESERT AIDS PROJECT	2,500
DESERT CANCER FOUNDATION	2,500
DIAMOND BAR COMMUNITY FOUNDATION	2,500
DIY GIRLS	5,000
DOWNEY HISTORICAL SOCIETY	950
EAST LOS ANGELES COLLEGE FOUNDATION	5,000
EASTMONT COMMUNITY CENTER	1,500
ECONOMIC ALLIANCE FOUNDATION	2,500
ECONOMIC ALLIANCE OF THE SAN FERNANDO VALLEY	12,500
EL CAMINO COLLEGE FOUNDATION	7,500
EL CAMINO HOMELESS ORGANIZATION	1,000
EL CONCILIO DEL CONDADO DE VENTURA	13,000
ELEMENTAL STRINGS	1,000
ELEVATE BURBANK	2,500
ENDOWMENT FOR YOUTH COMMITTEE	3,000
ENERGY INDEPENDENCE NOW	16,000
EPIC LEADERSHIP CENTER INC	5,000
EXCEPTIONAL CHILDREN'S FOUNDATION	500
FAMILY PROMISE OF THE VERDUGOS	2,000
FAMILY PROMISE YUCAIPA - CALIMESA	800
FIRST TEE - SILICON VALLEY	18,000
FISH REEF PROJECT	1,500
FLINTRIDGE CENTER	2,000
FOOTHILL UNITY CENTER	1,500
FOR THE LOVE OF OUR VETERANS INC	1,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
FOUNDATION FOR WOMEN WARRIORS	1,000
FRIENDS OF CABRILLO MARINE AQUARIUM	1,500
FRIENDS OF FAMILIES	2,425
FRIENDS OF THE DESERT MOUNTAINS	7,400
FRIENDS OF THE GLENDORA LIBRARY	1,500
FRIENDS OF THE NORTHRIDGE LIBRARY	1,000
FRIENDS OF THE POMONA PUBLIC LIBRARY	500
FRIENDS OF THE REDONDO BEACH DOG PARK INC	3,050
GARDEN PATHWAYS INC	1,250
GENERACIONES CHURCH	695
GIRL PLUS ENVIRONMENT	500
GIRL SCOUT COUNCIL OF ORANGE COUNTY	4,500
GIRL SCOUTS OF CALIFORNIA'S CENTRAL COAST	10,000
GIRL SCOUTS OF SAN GORGONIO COUNCIL	40,000
GLENDALE EDUCATIONAL FOUNDATION	1,500
GLENDORA YOUTH FOOTBALL AND CHEER	500
GOD'S PANTRY	500
GOLD COAST PERFORMING ARTS ASSOCIATION	500
GOVERNORS CUP FOUNDATION INC	22,000
GREAT MINDS IN STEM	12,500
GREATER LA AFRICAN AMERICAN CHAMBER OF COMMERCE EDUCATION FUND	30,500
GREATER PALM SPRINGS PRIDE INC	1,000
GREEN HYDROGEN COALITION	302,603
GRISWOLD LASALLE COMMUNITY FOUNDATION	500
HABITAT FOR HUMANITY - RIVERSIDE	1,500
HABITAT FOR HUMANITY INLAND VALLEY INC	1,500
HANFORD MULTICULTURAL THEATER COMPANY INC	1,500
HAPPY TRAILS RIDING ACADEMY	5,000
HENRY E. HUNTINGTON LIBRARY & ART GALLERY	2,500
HENRY MAYO NEWHALL MEMORIAL HEALTH FOUNDATION	2,500
HERMANDAD MEXICANA NACIONAL	3,000
HEROES HALL VETERANS FOUNDATION	1,000
HEROES OF LIFE	1,000
HISPANAS ORGANIZED FOR POLITICAL EQUALITY	10,000
HISPANIC 100 FOUNDATION	1,200
HOMES FOR FAMILIES	2,500
HOPE OF THE VALLEY RESCUE MISSION	15,000
HOPE THROUGH HOUSING FOUNDATION	1,000
HOURLASS PROJECT	2,500
IMAGINEU CHILDREN'S MUSEUM	2,500
INDEPENDENT CITIES ASSOCIATION	22,500
INGLEWOOD COMMUNITY SERVICES CORPORATION	5,000
INLAND COUNTIES REGIONAL CENTER INC	1,500
INNER CITY CHILD DEVELOPMENT & YOUTH FOUNDATION INC	1,500
INTERNATIONAL TRADE EDUCATION PROGRAMS INC	5,000
INTERNET ARCHIVE	500
K I S FOUNDATION INC	2,000
KERN ADULT LITERACY COUNCIL	2,000
KERN ATHLETIC FENCING FOUNDATION INC	500
KERN ECONOMIC DEVELOPMENT FOUNDATION	1,000
KID-FIT PRESCHOOL HEALTH AND FITNESS ORGANIZATION	750
KIPP LA SCHOOLS	1,300

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED: 426
L A FAMILY HOUSING CORPORATION	15,000
LA CASA DE SAN GABRIEL COMMUNITY CENTER	1,500
LA HABRA MEALS ON WHEELS	1,000
LA PALMA COMMUNITY FOUNDATION	2,000
LATINA LAWYERS BAR ASSOCIATION	2,500
LATINA LEADERS OF KERN COUNTY	1,500
LATINA PUBLIC SERVICE ACADEMY	2,500
LATINO BUSINESS CHAMBER OF GREATER LOS ANGELES FOUNDATION	2,500
LATINO LEGISLATIVE CAUCUS FOUNDATION	22,500
LINCOLN TRAINING CENTER & REHABILITATION WORKSHOP	1,000
LITTLE TOKYO SERVICE CENTER INC	2,500
LOMITA KIWANIS FOUNDATION	1,000
LONG BEACH CENTER FOR ECONOMIC INCLUSION	5,000
LOS ANGELES AREA CHAMBER OF COMMERCE	93,000
LOS ANGELES BROTHERHOOD CRUSADE INC	2,000
LOS ANGELES CENTERS FOR ALCOHOL AND DRUG ABUSE	5,000
LOS ANGELES CITY COLLEGE FOUNDATION	2,750
LOS ANGELES COUNTY DELEGATION FOUNDATION	5,000
LOS ANGELES CRIME STOPPERS	2,500
LOS ANGELES ECONOMIC DEVELOPMENT CORPORATION	57,500
LOS ANGELES LATINO CHAMBER OF COMMERCE FOUNDATION	12,500
LOS ANGELES MARITIME INSTITUTE	1,500
LOVE THEM ALL FOUNDATION	2,800
MAR VISTA FAMILY CENTER	15,000
MARYMOUNT HIGH SCHOOL	750
MENIFEE INTERFAITH AND COMMUNITY SERVICE COUNCIL	1,500
MENIFEE VALLEY BOYS AND GIRLS CLUB	1,000
MERCI-MENTALLY & EDUCATIONALLY RETARDED CITIZENS	500
MEXICAN AMERICAN LEGAL DEFENSE AND EDUCATIONAL FUND	5,000
MEXICAN AMERICAN OPPORTUNITY FOUNDATION HEADQUARTERS	12,000
MICHELLE'S PLACE	1,000
MIDNIGHT MISSION	20,000
MONETA GARDENS IMPROVEMENT INC	750
MONTEBELLO-COMMERCE YMCA	1,000
MONTEREY PARK LIBRARY FOUNDATION	850
MORENO VALLEY COMMUNITY FOUNDATION	1,000
MORENO VALLEY EDUCATORS FOUNDATION	1,500
MT SAN JACINTO COLLEGE FOUNDATION	1,500
MURRIETA PARTNERSHIP INC	1,000
MUSEUM OF LATIN AMERICAN ART	10,000
MYCHALS LEARNING PLACE	1,000
NATIONAL ASSOCIATION OF LATINO ELECTED OFFICIALS EDUCATIONAL FUND	10,000
NATIONAL ASSOCIATION OF MINORITY CONTRACTORS	12,500
NATIONAL CONGRESS OF BLACK WOMEN INC., LOS ANGELES CHAPTER	1,000
NATIONAL LATINA BUSINESS WOMEN ASSOCIATION	20,000
NATIONAL ORGANIZATION OF BLACK LAW ENFORCEMENT EXECUTIVES NOBLE	2,500
NATIONAL SORORITY OF PHI DELTA KAPPA INC	1,000
NEW GREATER VICTORY PENTECOSTAL CHURCH	2,500
NEW WAY CALIFORNIA FOUNDATION	5,000
NOHO HOME ALLIANCE	2,000
NORTH VALLEY FAMILY YMCA	5,500
NORTHEAST VALLEY HEALTH CORPORATION	2,500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
OAK GROVE - CENTER FOR EDUCATION TREATMENT AND THE ARTS	1,500
OCEANOGRAPHIC TEACHING STATIONS INC	2,500
ONE IN LONG BEACH INC	10,000
ONTARIO-MONTCLAIR SCHOOLS FOUNDATION	2,700
OPERATION GRATITUDE	3,000
OPERATION PROGRESS STUDENT ASSISTANCE FOUNDATION CAL	5,000
ORANGE COUNTY ASIAN AND PACIFIC ISLANDER COMMUNITY ALLIANCE	3,000
ORANGE COUNTY CHILDRENS THERAPEUTIC ARTS CENTER	700
ORANGE COUNTY COASTKEEPER	1,500
ORANGE COUNTY COMMUNITY FOUNDATION	3,000
ORANGE COUNTY CRIME STOPPERS	2,500
ORANGE COUNTY CURRENT AFFAIRS FORUM	6,500
ORANGE COUNTY UNITED WAY	5,000
OTIS COLLEGE OF ART AND DESIGN	500
PACIFIC BATTLESHIP CENTER	2,000
PACIFIC CREST YOUTH ARTS ORGANIZATION	4,000
PALM SPRINGS CULTURAL CENTER	1,500
PASADENA POLICE FOUNDATION	500
PASADENA SENIOR CENTER	1,500
PEPPERDINE UNIVERSITY	1,500
POMONA COMMUNITY FOUNDATION	1,000
POMONA PUBLIC LIBRARY FOUNDATION	1,000
PONY-COLT BASEBALL OF CYPRESS INC	1,000
POSITIVE RESULTS CORPORATION	10,000
PROFESSIONAL WOMENS ROUNDTABLE	500
PROJECT BY PROJECT	2,500
PROJECT HOPE CA INC	500
PROYECTO PASTORAL AT DOLORES MISSION	1,500
PUSHRIM FOUNDATION	2,500
R H BUCKBOARD DAYS PARADE	1,000
READING HEARTS	6,000
REALITY RALLY INC	500
REDLANDS COMMUNITY FOUNDATION	5,000
REDLANDS COMMUNITY MUSIC ASSOCIATION	4,000
REDLANDS HIGH SCHOOL VOCAL MUSIC BOOSTERS	1,000
REDONDO BEACH CHAMBER OF COMMERCE COMMUNITY FOUNDATION	2,450
REDONDO BEACH POLICE FOUNDATION	5,000
REDONDO BEACH YOUTH FOOTBALL	2,000
REGENTS OF THE UNIVERSITY OF CALIFORNIA	25,000
REGENTS UNIVERSITY OF CALIFORNIA LOS ANGELES	6,000
REGIONAL ACCESS PROJECT FOUNDATION	1,500
REGIONAL HISPANIC INSTITUTE	2,500
REIMAGINE LA FOUNDATION	1,200
REYNALDO J CARREON M D FOUNDATION	1,000
RIVERSIDE ART MUSEUM	10,500
RIVERSIDE COUNTY DEPUTY SHERIFF RELIEF FOUNDATION INC	2,000
RIVERSIDE COUNTY WORKS	2,000
RIVERSIDE LAND CONSERVANCY	1,750
RONALD MCDONALD HOUSE CHARITIES OF SOUTHERN CALIFORNIA - HEADQUARTERS & LOS ANGELES HOUSE	2,500
ROSE BOWL AQUATICS CENTER	2,500
ROTARY CLUB OF PLAYA VENICE SUNRISE	500
S T R E A M GLOBAL INNOVATIONS INC	5,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
SABAN - SOUTH ASIAN BIZ ALLIANCE NETWORK	1,500
SALT AND LIGHT WORKS	10,000
SALVATION ARMY CALIFORNIA SOUTH DIVISION	14,000
SAN BERNARDINO COUNTY MUSEUM ASSOC 2022 ORANGE TREE LN	500
SAN BERNARDINO COUNTY SAFETY EMPLOYEES BENEFIT ASSOCIATION CHARITY	5,000
SAN BERNARDINO INTERNATIONAL AIRPORT INC	5,000
SAN BERNARDINO SHERIFFS ATHLETIC FEDERATION FOUNDATION	1,000
SAN GABRIEL VALLEY FOUNDATION FOR ECONOMIC GROWTH	1,000
SANTA ANA COLLEGE FOUNDATION	2,500
SANTA BARBARA FIREFIGHTERS ALLIANCE	2,500
SANTA BARBARA MARITIME MUSEUM	5,000
SANTA BARBARA ZOOLOGICAL FOUNDATION	2,500
SANTA CLARITA VALLEY BOYS AND GIRLS CLUB	2,500
SANTA CLARITA VALLEY COMMITTEE ON AGING INC	5,000
SANTA CLARITA VALLEY ECONOMIC DEVELOPMENT CORPORATION	9,425
SANTA CLARITA VALLEY SHERIFF'S FOUNDATION	1,500
SANTA YNEZ VALLEY THERAPEUTIC RIDING PROGRAM	1,500
SCHOLARSHIP AMERICA	30,750
SCIENCE AND TECHNOLOGY EDUCATION PARTNERSHIP	1,000
SEMPER FI ONE MEMORIAL HONOR DETAIL	1,000
SEQUOIA RIVERLANDS TRUST	3,000
SEVEN POINT INC., SHERIFF'S RODEO FOUNDATION	2,500
SHAFTER LIONS FOUNDATION	500
SHAREFEST COMMUNITY DEVELOPMENT	2,000
SHERIFFS EMPLOYEE ASSISTANCE TEAM INC	2,500
SHOES THAT FIT	500
SIGMA BETA XI INC	1,500
SOBOBA BAND OF LUISENO INDIANS	2,500
SOCIETY OF EXTRAORDINARY WOMEN INC	3,000
SOMIS EDUCATION FOUNDATION	5,000
SOROPTIMIST INTERNATIONAL OF CORONA	500
SOROPTIMIST INTERNATIONAL OF THE AMERICAS INC	2,075
SOUTH COAST BOTANIC GARDEN FOUNDATION	1,500
SOUTHERN CALIFORNIA CROSSROADS	1,000
SOUTHERN CALIFORNIA GRANTMAKERS	9,800
SOUTHERN CALIFORNIA MINORITY BUSINESS DEVELOPMENT COUNCIL	40,000
SOUTHERN CALIFORNIA WATER COALITION	5,000
SPECIAL SERVICE FOR GROUPS	5,000
SPIRITT FAMILY SERVICES	2,150
STELLA ADLER STUDIO OF ACTING	2,500
STUDENT OF THE MONTH PROGRAM INC	1,500
TAFT COLLEGE FOUNDATION	1,500
TALK ABOUT CURING AUTISM	3,000
TARAS CHANCE	1,000
TEMECULA SUNRISE ROTARY FOUNDATION	500
TENEMOS QUE RECLAMAR Y UNIDOS SALVAR LA TIERRA-SOUTH LA	15,000
THE ASSOCIATION OF WOMEN IN WATER ENERGY AND ENVIRONMENT	3,000
THE DOMINGUEZ DREAM IN MEMORY OF H FRANK DOMINGUEZ	7,500
THE ECOLOGY CENTER	1,600
THE GODDESS MERCADO	1,000
THE HISTORICAL SOCIETY OF POMONA VALLEY	1,500
THE MURRIETA ROTARY FOUNDATION	1,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
THE UCI FOUNDATION	12,500
THE WHOLE CHILD	3,000
THE WILDFIRE CONSERVANCY	25,000
THE BO AND ARROW GROUP	800
THOMAS HOUSE TEMPORARY SHELTER	2,000
THRIVE SANTA ANA	500
TIA CHUCHA'S CENTRO CULTURAL	5,000
TOYS FOR TOTS FOUNDATION	1,000
TREE FOUNDATION OF KERN	1,000
TULARE COUNTY OFFICE OF EDUCATION FOUNDATION	1,500
TULARE COUNTY SHERIFF'S POLICE ACTIVITIES LEAGUE	2,500
TULE BASIN LAND AND WATER CONSERVATION TRUST	500
TWIN PEAKS CITIZENS ON PATROL	1,100
U.S. GREEN BUILDING COUNCIL-LOS ANGELES CHAPTER	5,000
UNITED LATINO FUND	12,500
UNITED WAY OF THE CENTRAL COAST INC	2,000
UNITED WAY OF TULARE COUNTY	5,000
UNITED WAY OF VENTURA COUNTY	3,500
UNITE-LA	10,000
UNITY SHOPPE	2,000
UNIVERSITY OF LA VERNE	12,200
UNIVERSITY OF SOUTHERN CALIFORNIA SOL PRICE SCHOOL OF PUBLIC POLICY	20,000
URIKA CENTER FOR POLICY RESEARCH	2,500
USC LATINO ALUMNI ASSOCIATION	5,000
USO - HEADQUARTERS	20,000
VALLEY CULTURAL CENTER	1,500
VALLEY FAMILY CENTER	2,500
VALLEY JEWISH COMMUNITY CENTER	5,000
VALLEY VILLAGE	5,000
VC COLAB FOUNDATION	5,000
VECINOS DE SOUTH PASADENA	500
VENTURA COUNTY LEADERSHIP ACADEMY INC	6,000
VETERANS IN BUSINESS NETWORK	16,500
VETERANS LEGAL INSTITUTE	1,500
VETFUND FOUNDATION	10,000
VIA CARE COMMUNITY HEALTH CENTER	500
VISALIA ECONOMIC DEVELOPMENT CORPORATION	1,500
VISTA DEL MAR CHILD AND FAMILY SERVICES	1,500
VITAL LINK EDUCATION-BUSINESS CONSORTIUM	1,000
WALNUT VALLEY EDUCATIONAL FOUNDATION	1,500
WATER EDUCATION FOR LATINO LEADERS	2,500
WEST END YMCA, SCHEU FAMILY YMA OF UPLAND	800
WEST LOS ANGELES COLLEGE FOUNDATION	1,500
WESTCHESTER ROTARY FOUNDATION	800
WESTCHESTER-PLAYA PARENTS ACHIEVING RESULTS TOGETHER EDUCATION FOUNDATION	1,750
WESTERN DAIRY SHOWCASE INC	500
WILDERNESS YOUTH PROJECT INCORPORATED	2,500
WOMEN IN NON TRADITIONAL EMPLOYMENT ROLES, ADMINISTRATIVE OFFICE	1,500
WOMEN'S BUSINESS ENTERPRISE COUNCIL-WEST	25,000
WRCOG SUPPORTING FOUNDATION	7,000
WYLAND FOUNDATION	1,000
YMCA METROPOLITAN LOS ANGELES – WILMINGTON YMCA	2,500

SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
YMCA OF GLENDALE	2,500
YMCA OF METROPOLITAN LOS ANGELES	5,000
YMCA OF THE DESERT	1,050
YMCA OF THE EAST VALLEY	1,000
YMCA OF THE WEST SAN GABRIEL VALLEY	2,500
YMCA WESTCHESTER FAMILY	7,700
YORBA LINDA CHAMBER OF COMMERCE FOUNDATION INC	500
YORBA LINDA WOMANS CLUB	500
YOUNG LIFE - SANTA BARBARA	1,500
YOUNG LIFE - VISALIA	500
YOUNG MENS CHRISTIAN ASSOCIATION OF METROPOLITAN LOS ANGELES	2,500
YOUTH EDUCATIONAL SPORTS SCHOLARSHIP	500
YOUTH HOPE FOUNDATION	2,000
YWCA - GLENDALE	2,500
TOTAL	12,413,229

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED: 426
ALHAMBRA CHAMBER OF COMMERCE	2,000
ALTADENA CHAMBER OF COMMERCE	1,912
AMERICAN BIOGAS COUNCIL	5,000
AMERICAN GAS ASSOCIATION	37,644
AMERICAN INDIAN CHAMBER OF COMMERCE OF CALIFORNIA	20,500
ANAHEIM CHAMBER OF COMMERCE	1,959
ANTELOPE VALLEY CHAMBERS OF COMMERCE	550
ASIAN BUSINESS ASSOCIATION OF LOS ANGELES	17,500
ASIAN BUSINESS ASSOCIATION OF ORANGE COUNTY	15,000
ATASCADERO CHAMBER OF COMMERCE	2,980
AZUSA CHAMBER OF COMMERCE	1,664
BANNING CHAMBER OF COMMERCE	780
BEAUMONT CHAMBER OF COMMERCE	855
BELL CHAMBER OF COMMERCE	4,050
BELLFLOWER CHAMBER OF COMMERCE	750
BEVERLY HILLS CHAMBER OF COMMERCE	2,425
BIOENERGY ASSOCIATION OF CALIFORNIA	5,500
BLACK CHAMBER OF COMMERCE OF ORANGE COUNTY	5,000
BLYTHE AREA CHAMBER OF COMMERCE	1,125
BOYLE HEIGHTS CHAMBER OF COMMERCE	500
BRAWLEY CHAMBER OF COMMERCE	2,130
BREA CHAMBER OF COMMERCE	5,580
BURBANK CHAMBER OF COMMERCE	2,750
CALABASAS CHAMBER OF COMMERCE	1,475
CALIFORNIA ASIAN PACIFIC CHAMBER OF COMMERCE	10,000
CALIFORNIA BUILDING INDUSTRY ASSOCIATION	10,000
CALIFORNIA BUSINESS PROPERTIES ASSOCIATION	20,000
CALIFORNIA BUSINESS ROUNDTABLE	30,000
CALIFORNIA CARBON CAPTURE COALITION	50,000
CALIFORNIA CHAMBER OF COMMERCE	75,000
CALIFORNIA CHAPTER AMERICAN PLANNING ASSOCIATION	7,500
CALIFORNIA CHAPTER AMERICAN PLANNING ASSOCIATION, LOS ANGELES SECTION	2,500
CALIFORNIA CONTRACT CITIES ASSOCIATION	15,000
CALIFORNIA COUNCIL FOR ENVIRONMENTAL AND ECONOMIC BALANCE	124,500
CALIFORNIA HISPANIC CHAMBER OF COMMERCE	15,000
CALIFORNIA HYDROGEN BUSINESS COUNCIL	12,000
CALIFORNIA ISSUES FORUM	25,000
CALIFORNIA MANUFACTURERS & TECHNOLOGY ASSOCIATION	16,500
CALIFORNIA NATIONS INDIAN GAMING ASSOCIATION	2,500
CALIFORNIA NATURAL GAS VEHICLE COALITION	10,725
CALIMESA CHAMBER OF COMMERCE	625
CENTRAL CITY ASSOCIATION OF LOS ANGELES	23,300
CENTRAL VALLEY BUSINESS FEDERATION	50,000
CERRITOS CHAMBER OF COMMERCE	1,800
CHAMBER OF COMMERCE - CENTURY CITY	600
CHAMBER OF COMMERCE - CRENSHAW	1,000
CHAMBER OF COMMERCE - DANA POINT	1,705
CHAMBER OF COMMERCE - EAST LOS ANGELES	600
CHAMBER OF COMMERCE - LAGUNA BEACH	1,000
CHAMBER OF COMMERCE - ONTARIO	7,000
CHAMBER OF COMMERCE - SAN CLEMENTE	1,114
CHAMBER OF COMMERCE - SAN JUAN CAPISTRANO	900

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
CHAMBERS OF COMMERCE ALLIANCE OF VENTURA & SANTA BARBARA COUNTIES	3,000
CHATSWORTH PORTER RANCH CHAMBER OF COMMERCE	6,500
CHINESE AMERICAN CONSTRUCTION PROFESSIONALS	10,000
CHINESE-AMERICAN ELECTED OFFICIALS INC	1,888
CHINO VALLEY CHAMBER OF COMMERCE	2,800
CITY OF BREA	1,000
CITY OF LYNWOOD	500
CITY OF MAYWOOD	500
CITY OF MONTEBELLO	2,500
CIVIL JUSTICE ASSOCIATION OF CALIFORNIA	27,500
CLAREMONT CHAMBER OF COMMERCE	4,100
COALITION FOR RENEWABLE NATURAL GAS	64,500
COALITION OF LABOR AGRICULTURE AND BUSINESS OF SAN LUIS OBISPO COUNTY	2,600
COALITION OF LABOR AGRICULTURE AND BUSINESS OF SANTA MARIA	1,100
COLTON CHAMBER OF COMMERCE	500
COMPTON UNIFIED SCHOOL DISTRICT	4,000
CONFERENCE OF CALIFORNIA PUBLIC UTILITY COUNSEL	6,000
CORONA CHAMBER OF COMMERCE	8,413
COSTA MESA CHAMBER OF COMMERCE	3,350
COUNTY OF IMPERIAL- STATE OF THE COUNTY	1,500
COVINA CHAMBER OF COMMERCE	1,775
CULVER CITY CHAMBER OF COMMERCE	3,780
CYPRESS CHAMBER OF COMMERCE	1,300
DELANO CHAMBER OF COMMERCE	550
DEPARTMENT ON DISABILITY	5,000
DESERT BUSINESS ASSOCIATION	4,000
DESERT VALLEY'S BUILDERS ASSOCIATION	3,500
DOWNEY CHAMBER OF COMMERCE	1,710
DUARTE CHAMBER OF COMMERCE	842
EASTVALE CHAMBER OF COMMERCE	1,800
ECONOMIC DEVELOPMENT CORPORATION OF SOUTHWEST RIVERSIDE COUNTY	5,000
EDC SOUTHWEST CALIFORNIA	500
EL CENTRO CHAMBER OF COMMERCE	3,975
EL MONTE / SOUTH EL MONTE CHAMBER OF COMMERCE	1,400
EL SEGUNDO CHAMBER OF COMMERCE	1,920
FONTANA CHAMBER OF COMMERCE	3,000
FOUNTAIN VALLEY CHAMBER OF COMMERCE	805
FULLERTON CHAMBER OF COMMERCE	1,500
FUTUREREPORTS	15,000
GARDEN GROVE CHAMBER OF COMMERCE	849
GARDENA VALLEY CHAMBER OF COMMERCE	600
GATEWAY CHAMBERS ALLIANCE INC	500
GLENDORA CHAMBER OF COMMERCE	975
GOLETA VALLEY CHAMBER OF COMMERCE	7,270
GREATER ANTELOPE VALLEY ECONOMIC ALLIANCE	5,000
GREATER BAKERSFIELD CHAMBER OF COMMERCE	3,405
GREATER COACHELLA VALLEY CHAMBER OF COMMERCE	3,810
GREATER CONEJO VALLEY CHAMBER OF COMMERCE	5,980
GREATER MONTEREY PARK CHAMBER OF COMMERCE	500
GREATER RIVERSIDE CHAMBERS OF COMMERCE	13,250
GREATER SAN FERNANDO VALLEY CHAMBER OF COMMERCE	3,395
GREATER SHERMAN OAKS CHAMBER OF COMMERCE	2,700

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
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3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
GREEN HYDROGEN COALITION	897
HANFORD CHAMBER OF COMMERCE	700
HARBOR ASSOCIATION OF INDUSTRY & COMMERCE	6,000
HARBOR TRUCKING ASSOCIATION	2,500
HEMET/SAN JACINTO VALLEY CHAMBER OF COMMERCE	1,654
HERMOSA BEACH CHAMBER OF COMMERCE	2,300
HOLLYWOOD CHAMBER OF COMMERCE	3,095
IMPERIAL VALLEY ECONOMIC DEVELOPMENT CORPORATION	5,000
INDUSTRIAL COUNCIL/CHAMBER OF COMMERCE	800
INDUSTRY MANUFACTURES COUNCIL	1,500
INGLEWOOD/AIRPORT AREA CHAMBER OF COMMERCE	2,500
INLAND ACTION INC	5,775
INLAND EMPIRE ASIAN BUSINESS ASSOCIATION #984	1,500
INLAND EMPIRE ECONOMIC PARTNERSHIP	17,500
IRVINE CHAMBER OF COMMERCE	5,500
IRWINDALE CHAMBER OF COMMERCE	2,651
JURUPA VALLEY CHAMBER OF COMMERCE	1,500
KERN COUNTY BLACK CHAMBER OF COMMERCE	600
KERN COUNTY HISPANIC CHAMBER OF COMMERCE	500
KERN COUNTY TAXPAYERS ASSOCIATION	3,500
KERN ECONOMIC DEVELOPMENT CORPORATION	12,500
KINGS COUNTY ECONOMIC DEVELOPMENT CORPORATION	3,100
KINGS COUNTY FIREFIGHTERS ASSOCIATION	2,500
LA HABRA AREA CHAMBER OF COMMERCE	975
LA MIRADA CHAMBER OF COMMERCE	1,400
LA VERNE CHAMBER OF COMMERCE	2,150
LAKE ELSINORE VALLEY CHAMBER OF COMMERCE	1,525
LAKE FOREST CHAMBER OF COMMERCE	1,250
LAKEWOOD CHAMBER OF COMMERCE	1,220
LATIN BUSINESS ASSOCIATION - LOS ANGELES	15,000
LAX COASTAL AREA CHAMBER OF COMMERCE	8,245
LEAGUE OF CALIFORNIA CITIES	18,500
LEAGUE OF CALIFORNIA CITIES - ASIAN PACIFIC ISLANDER CAUCUS	2,500
LEAGUE OF CALIFORNIA CITIES - LATINO CAUCUS	7,500
LEAGUE OF CALIFORNIA CITIES - LGBTQ CAUCUS	2,500
LEMOORE DISTRICT CHAMBER OF COMMERCE	500
LOMITA CHAMBER OF COMMERCE	2,300
LONG BEACH AREA CHAMBER OF COMMERCE	20,000
LONG BEACH LGBTQ+ CHAMBER OF COMMERCE	5,000
LOS ALAMITOS CHAMBER OF COMMERCE	750
LOS ANGELES BUSINESS COUNCIL	5,000
LOS ANGELES COUNTY BUSINESS FEDERATION	57,500
LOS ANGELES GATEWAY CHAMBER OF COMMERCE	800
LOS ANGELES GAY AND LESBIAN CHAMBER OF COMMERCE	13,000
MALIBU CHAMBER OF COMMERCE	550
MANHATTAN BEACH CHAMBER OF COMMERCE	750
MCKITTRICK ELEMENTARY SCHOOL	500
MENIFEE VALLEY CHAMBER OF COMMERCE	1,400
MISSION VIEJO CHAMBER OF COMMERCE	750
MOBILITY 21	30,000
MOORPARK CHAMBER OF COMMERCE	650
MORENO VALLEY CHAMBER OF COMMERCE	1,410

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
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3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
MURRIETA CHAMBER OF COMMERCE	3,300
MURRIETA TEMECULA GROUP	555
NATIONAL GAY & LESBIAN CHAMBER OF COMMERCE	25,000
NATIONAL PETROLEUM COUNCIL	49,001
NAWBO CALIFORNIA	25,000
NEWPORT BEACH CHAMBER OF COMMERCE	500
NGVAMERICA	10,205
NORTH OF THE RIVER CHAMBER OF COMMERCE	1,750
NORTH VALLEY REGIONAL CHAMBER OF COMMERCE	3,500
NORWALK CHAMBER OF COMMERCE	1,200
ORANGE CHAMBER OF COMMERCE	1,425
ORANGE COUNTY BUSINESS COUNCIL	30,600
ORANGE COUNTY PUBLIC AFFAIRS ASSOCIATION	1,000
ORANGE COUNTY TAXPAYERS ASSOCIATION	6,500
OXNARD CHAMBER OF COMMERCE	1,575
PALM DESERT CHAMBER OF COMMERCE	1,000
PALM SPRINGS CHAMBER OF COMMERCE	1,500
PALOS VERDES PENINSULA CHAMBER OF COMMERCE	550
PARAMOUNT CHAMBER OF COMMERCE	1,249
PASADENA CHAMBER OF COMMERCE	1,060
PERRIS VALLEY CHAMBER OF COMMERCE	1,500
PLACENTIA CHAMBER OF COMMERCE	1,800
POMONA CHAMBER OF COMMERCE	4,030
RANCHO CUCAMONGA CHAMBER OF COMMERCE	1,395
RANCHO MIRAGE CHAMBER OF COMMERCE	525
REDLANDS CHAMBER OF COMMERCE	3,105
REDONDO BEACH CHAMBER OF COMMERCE	1,495
REGIONAL BLACK CHAMBER OF COMMERCE OF THE SAN FERNANDO VALLEY	1,500
REGIONAL CHAMBER OF COMMERCE SAN GABRIEL VALLEY	750
REGIONAL HISPANIC CHAMBER OF COMMERCE	2,500
RENEWABLE HYDROGEN ALLIANCE	10,000
RIVERSIDE COUNTY ECONOMIC DEVELOPMENT AGENCY	1,000
ROSEMEAD CHAMBER OF COMMERCE	1,930
RSM CHAMBER OF COMMERCE	500
SACRAMENTO RAINBOW CHAMBER OF COMMERCE	1,500
SAN BERNARDINO AREA CHAMBER OF COMMERCE	500
SAN BERNARDINO CHAMBER OF COMMERCE	690
SAN BERNARDINO COUNTY	5,000
SAN DIMAS CHAMBER OF COMMERCE	580
SAN GABRIEL VALLEY ECONOMIC PARTNERSHIP	11,000
SAN GABRIEL VALLEY PUBLIC AFFAIRS NETWORK	2,500
SAN LUIS OBISPO CHAMBER OF COMMERCE	990
SAN PEDRO PENINSULA CHAMBER OF COMMERCE	500
SANTA ANA CHAMBER OF COMMERCE	4,255
SANTA BARBARA ASSOCIATION OF REALTORS	1,680
SANTA BARBARA COUNTY TAXPAYERS ASSOCIATION	590
SANTA CLARITA VALLEY CHAMBER OF COMMERCE	6,200
SANTA FE SPRINGS CHAMBER OF COMMERCE AND INDUSTRIAL LEAGUE INC	1,440
SANTA MARIA VALLEY CHAMBER OF COMMERCE	530
SANTA PAULA CHAMBER OF COMMERCE	640
SIMI VALLEY CHAMBER OF COMMERCE	920
SOLVANG CHAMBER OF COMMERCE	1,250

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2022**

3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
SOUTH BAY ASSOCIATION OF CHAMBERS OF COMMERCE	2,500
SOUTH BAY CITIES COUNCIL OF GOVERNMENTS	2,500
SOUTH GATE CHAMBER OF COMMERCE	1,500
SOUTH ORANGE COUNTY REGIONAL CHAMBERS OF COMMERCE	2,500
SOUTHERN CALIFORNIA AIR QUALITY ALLIANCE	2,000
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS	20,000
SUSTAIN SOCIAL	5,000
TEMECULA VALLEY CHAMBER OF COMMERCE	5,075
TEMPLE CITY CHAMBER OF COMMERCE	1,350
THE GREATER HUNTINGTON PARK AREA CHAMBER OF COMMERCE	1,800
THE SOUTHERN CALIFORNIA BLACK CHAMBER OF COMMERCE	750
TORRANCE AREA CHAMBER OF COMMERCE	3,865
TULARE CHAMBER OF COMMERCE	1,000
TULARE COUNTY ECONOMIC DEVELOPMENT CORPORATION	3,000
TULARE KINGS HISPANIC CHAMBER OF COMMERCE	1,500
TUSTIN CHAMBER OF COMMERCE	1,000
UNITED CHAMBERS OF COMMERCE	7,500
UPLAND CHAMBER OF COMMERCE	1,400
VALLEY INDUSTRIAL ASSOCIATION OF SANTA CLARITA	995
VALLEY INDUSTRY AND COMMERCE ASSOCIATION	40,000
VENICE CHAMBER OF COMMERCE	595
VENTURA CHAMBER OF COMMERCE	5,500
VENTURA COUNTY COALITION OF LABOR AGRICULTURE AND BUSINESS	2,500
VENTURA COUNTY TAX PAYERS ASSOCIATION	3,000
VISALIA CHAMBER OF COMMERCE	2,075
WEST COVINA ROSE FLOAT FOUNDATION	1,250
WEST HOLLYWOOD CHAMBER OF COMMERCE	3,750
WESTSIDE COUNCIL OF CHAMBERS OF COMMERCE	1,000
WHITTIER AREA CHAMBER OF COMMERCE	2,500
WOODLAND HILLS CHAMBER OF COMMERCE	1,500
YORBA LINDA CHAMBER OF COMMERCE	2,960
YUCAIPA VALLEY CHAMBER OF COMMERCE	3,950
 TOTAL	 <u><u>1,576,117</u></u>

**SOUTHERN CALIFORNIA GAS COMPANY
INTERVENOR COMPENSATION
FOR THE YEAR ENDED DECEMBER 31, 2022**

INTERVENOR	PROCEEDING NAME	PROCEEDING NO.	TOTAL
SMALL BUSINESS UTILITY ADVOCATES	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR AUTHORITY TO REVISE THEIR NATURAL GAS RATES AND IMPLEMENT STORAGE PROPOSALS EFFECTIVE JANUARY 1, 2020 IN THIS TRIENNIAL COST ALLOCATION PROCEEDING.	A. 18-07-024	\$ 107,289
THE UTILITY REFORM NETWORK	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR RENEWABLE NATURAL GAS TARIFF.	A. 19-02-015	43,747
CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE	ORDER INSTITUTING RULEMAKING TO CONSIDER STRATEGIES AND GUIDANCE FOR CLIMATE CHANGE ADAPTATION.	R. 18-04-019	15,722
LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY	ORDER INSTITUTING RULEMAKING TO CONSIDER STRATEGIES AND GUIDANCE FOR CLIMATE CHANGE ADAPTATION.	R. 18-04-019	2,409
CENTER ON RACE, POVERTY, AND THE ENVIRONMENT	ORDER INSTITUTING RULEMAKING TO IDENTIFY DISADVANTAGED COMMUNITIES IN THE SAN JOAQUIN VALLEY AND ANALYZE ECONOMICALLY FEASIBLE OPTIONS TO INCREASE ACCESS TO AFFORDABLE ENERGY IN THOSE DISADVANTAGED COMMUNITIES.	R.15-03-010	17,165
LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR RENEWABLE NATURAL GAS TARIFF.	A.19-02-015	6,015
PROTECT OUR COMMUNITIES FOUNDATION	IN THE MATTER OF THE APPLICATION OF SAN DIEGO GAS & ELECTRIC COMPANY (U902G) AND SOUTHERN CALIFORNIA GAS COMPANY (U904G) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE PIPELINE SAFETY & RELIABILITY PROJECT.	A. 15-09-013	53,072
AGRICULTURAL ENERGY CONSUMERS ASSOCIATION	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR RENEWABLE NATURAL GAS TARIFF.	A. 19-02-015	38,079
THE UTILITY REFORM NETWORK	APPLICATION OF SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR AUTHORITY, AMONG OTHER THINGS, TO UPDATE ITS ELECTRIC AND GAS REVENUE REQUIREMENT AND BASE RATES EFFECTIVE ON JANUARY 1, 2019.	A. 17-10-007	30,282
ENVIRONMENTAL DEFENSE FUND	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR RENEWABLE NATURAL GAS TARIFF.	A.19-02-015	30,717
SIERRA CLUB	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR RENEWABLE NATURAL GAS TARIFF.	A.19-02-015	136,265
SMALL BUSINESS UTILITY ADVOCATES	ORDER INSTITUTING RULEMAKING CONCERNING ENERGY EFFICIENCY ROLLING PORTFOLIOS, POLICIES, PROGRAMS, EVALUATION, AND RELATED ISSUES.	R. 13-11-005	18,694
CHARLES GOLDMAN	ORDER INSTITUTING RULEMAKING REGARDING BUILDING DECARBONIZATION.	R. 19-01-011	925
PROTECT OUR COMMUNITIES FOUNDATION	APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U338E) FOR AUTHORITY TO ESTABLISH ITS AUTHORIZED COST OF CAPITAL FOR UTILITY OPERATIONS FOR 2020 AND TO PARTIALLY RESET THE ANNUAL COST OF CAPITAL ADJUSTMENT MECHANISM.	A. 19-04-014	9,416
SMALL BUSINESS UTILITY ADVOCATES	APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U338E) FOR APPROVAL OF ENERGY EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN.	A. 17-01-013	579
WILD TREE FOUNDATION	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR RENEWABLE NATURAL GAS TARIFF.	A. 19-02-015	88,214

**SOUTHERN CALIFORNIA GAS COMPANY
INTERVENOR COMPENSATION
FOR THE YEAR ENDED DECEMBER 31, 2022**

INTERVENOR	PROCEEDING NAME	PROCEEDING NO.	TOTAL
NATIONAL DIVERSITY COALITION	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) FOR ADOPTION OF ITS 2020 FLEX ALERT MARKETING CAMPAIGN.	A. 19-11-018	14,419
UTILITY CONSUMER ACTION NETWORK	APPLICATION OF SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR AUTHORITY, AMONG OTHER THINGS, TO UPDATE ITS ELECTRIC AND GAS REVENUE REQUIREMENT AND BASE RATES EFFECTIVE ON JANUARY 1, 2019.	A. 17-10-007	3,539
THE UTILITY REFORM NETWORK	APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY FOR APPROVAL OF ENERGY SAVINGS ASSISTANCE AND CALIFORNIA ALTERNATE RATES FOR ENERGY PROGRAMS AND BUDGETS FOR 2021-2026 PROGRAM YEARS.	A. 19-11-003	35,479
THE UTILITY REFORM NETWORK	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR AUTHORITY TO REVISE THEIR NATURAL GAS RATES AND IMPLEMENT STORAGE PROPOSALS EFFECTIVE JANUARY 1, 2020 IN THIS TRIENNIAL COST ALLOCATION PROCEEDING.	A. 18-07-024	24,906
CENTER FOR ACCESSIBLE TECHNOLOGY	APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY FOR APPROVAL OF ENERGY SAVINGS ASSISTANCE AND CALIFORNIA ALTERNATE RATES FOR ENERGY PROGRAMS AND BUDGETS FOR 2021-2026 PROGRAM YEARS.	A. 19-11-003	6,636
NATURAL RESOURCES DEFENSE COUNCIL	ORDER INSTITUTING RULEMAKING REGARDING BUILDING DECARBONIZATION.	R. 19-01-011	678
TOTAL			684,247

Exhibit M

**SOUTHERN CALIFORNIA GAS COMPANY
PURSUANT TO CPUC GENERAL ORDER NO. 77- M
FOR THE YEAR ENDED DECEMBER 31, 2023**

REDACTED VERSION

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NOTE: Per the requirements of GO 77-M Utilities (those with over \$1 billion annual operating revenues) are directed to include an internet site-link to all publicly available documents filed with the Securities and Exchange Commission (SEC) and with the California Public Utilities Commission that relate to executive compensation. Southern California Gas Company's links are:

<https://investor.sempra.com/sec-filings>

<http://www.socalgas.com/regulatory/cpuc.shtml>

SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023

	<u>TOTAL</u>
1. MEMBERSHIPS - DUES & SUBSCRIPTIONS	\$ 3,332,876
2. CHARITABLE DONATIONS	7,936,857
3. NON-CHARITABLE CONTRIBUTIONS	1,692,523
TOTAL	<u>\$ 12,962,256</u>

Account numbers reported on the following pages are not an indication of the authorized ratemaking of payments reported, and instead indicate the appropriate accounting classification pursuant to 18 Code of Federal Regulations (C.F.R.) Part 201, Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Provisions of the Natural Gas Act.

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
ADOBE, INC.	870	600
	903	240
ALLIUM US HOLDING, LLC	850	115,835
ALTAMETRICS, LLC	908	2,804
AMAZON	184	33
	879	152
	903	183
	935	150
AMERICAN ASSOCIATION OF BLACKS IN ENERGY	870	250
	908	250
	921	750
	930	250
AMERICAN BOARD OF TRIAL ADVOCATES	921	850
AMERICAN GAS ASSOCIATION	930	989,792
AMERICAN INDUSTRIAL HYGIENE ASSOCIATION	925	1,340
AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS	903	575
	921	1,470
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS	814	244
	850	15,000
	930	15,398
AMERICAN PLANNING ASSOCIATION	921	788
AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING, INC.	814	501
	870	2,630
AMERICAN SOCIETY FOR QUALITY	850	555
	870	185
AMERICAN SOCIETY FOR TESTING AND MATERIALS	850	14,168
	870	4,296
	908	230
	930	75
AMERICAN SOCIETY OF CIVIL ENGINEERS	850	882
	870	219
AMERICAN SOCIETY OF MECHANICAL ENGINEERS	107	146
	108	12
	850	232
	870	227
	880	110

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
AMERICAN SOCIETY OF MECHANICAL ENGINEERS	921	110
	930	158
AMERICAN SOCIETY OF SAFETY PROFESSIONALS	925	625
AMERICAN WATER WORKS ASSOCIATION	908	1,839
AMERICAN WELDING SOCIETY	107	96
	108	7
	850	860
	870	3,219
ARTICULATE	184	1,399
	850	1,049
	870	1,099
ASSOCIATION FOR MATERIALS PROTECTION AND PERFORMANCE	107	361
	108	79
	824	630
	833	190
	850	14,918
	863	1,070
	870	1,707
	880	675
ASSOCIATION FOR TALENT DEVELOPMENT	903	837
	921	4,662
ASSOCIATION OF CALIFORNIA WATER AGENCIES	908	1,275
ASSOCIATION OF CHANGE MANAGEMENT PROFESSIONALS	930	795
ASSOCIATION OF CORPORATE COUNSEL	921	969
ASSOCIATION OF ENERGY ENGINEERS	850	300
	908	2,490
	930	440
ASSOCIATION OF ENVIRONMENTAL PROFESSIONALS	163	175
	824	175
	921	1,025
BIOENERGY ASSOCIATION OF CALIFORNIA	921	22,000
BOARD FOR GLOBAL EHS CREDENTIALING	921	170
	925	510
BOARD OF CERTIFIED SAFETY PROFESSIONALS	925	500
BUILDING INDUSTRY ASSOCIATION OF SOUTHERN CALIFORNIA	908	2,000
BUSINESS INSURANCE HOLDINGS, INC.	925	646

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
CALIFORNIA ASPHALT PAVEMENT ASSOCIATION	908	995
CALIFORNIA BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS	107	540
	807	180
	814	360
	824	180
	832	270
	850	5,881
	857	180
	870	3,853
	880	810
	908	540
	921	1,075
	930	360
CALIFORNIA BOARD OF ACCOUNTANCY	807	280
	850	280
	903	560
	908	280
	921	3,560
CALIFORNIA COALITION ON WORKERS' COMPENSATION	925	2,500
CALIFORNIA CRAFT BREWERS ASSOCIATION	426	1,850
CALIFORNIA HYDROGEN BUSINESS COUNCIL	921	18,000
CALIFORNIA LEAGUE OF FOOD PRODUCERS	908	545
CALIFORNIA METALS COALITION	908	1,995
CALIFORNIA SELF-INSURERS ASSOCIATION	925	990
CALIFORNIA SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS	426	208
	903	1,340
	921	2,613
CALIFORNIA STORMWATER QUALITY ASSOCIATION	923	4,480
CALIFORNIA TRUCKING ASSOCIATION	910	18,750
CALIFORNIA UTILITIES EMERGENCY ASSOCIATION	925	20,000
CALIFORNIA WATER EFFICIENCY PARTNERSHIP	908	6,315
CALIFORNIA WORKERS COMPENSATION	925	1,352
CAL-OSHA REPORTER	925	4,218
CITY CLUB LOS ANGELES	426	5,112

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
CLEAN WATER SOCAL	908	1,076
CLOUD9 TECHNOLOGIES, LLC	807	7,200
CLUB 33	426	32,500
COALITION FOR RENEWABLE NATURAL GAS, INC.	921	18,000
CONFERENCE OF CALIFORNIA PUBLIC UTILITY COUNSEL	921	975
CONSORTIUM ENERGY EFFICIENCY	908	115,588
CPA QUEBEC	921	648
DAILY JOURNAL	921	1,295
DARCY PARTNERS, LLC	930	150,000
DISABILITY MANAGEMENT EMPLOYER COALITION	925	590
DOW JONES & COMPANY, INC.	930	24,800
DTN, LLC	908	2,292
	925	6,355
ENERCALC, INC.	850	594
	870	594
ENERFAX	908	3,895
ENERGY SOLUTIONS CENTER, INC.	908	34,690
ENVIROCERT INTERNATIONAL, INC.	850	126
	870	34
	921	540
FIGMA, INC.	107	6,615
GARTNER, INC.	930	67,100
GAS MACHINERY RESEARCH COUNCIL	930	3,840
GETTY IMAGES	921	1,999
GLOBAL CCS INSTITUTE	908	28,000
HILTI	850	540
	870	540
HOME BUILDERS ASSOCIATION OF KERN	908	750
HOTEL ASSOCIATION OF LOS ANGELES	908	500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
HYDROGEN COUNCIL	908	27,708
HYDROGEN FUEL CELL	908	70,000
ICE DATA SERVICES, INC.	814	5,500
IHS GLOBAL, INC.	928	48,679
INSIDE WASHINGTON PUBLISHERS	908	1,675
	921	5,025
INSTITUTE OF SUPPLY MANAGEMENT	163	500
INTELLIGENCE PRESS, INC.	807	3,782
	850	3,782
	908	3,782
	921	11,346
	928	3,782
INTERNATIONAL ACCREDITATION SERVICE	908	3,500
INTERNATIONAL ASSOCIATION OF PRIVACY PROFESSIONALS	903	825
INTERNATIONAL RIGHT OF WAY ASSOCIATION	814	250
	921	270
	930	4,340
INTUIT	870	1,030
	921	2,080
	925	1,030
LOS ANGELES COUNTY BAR ASSOCIATION	921	1,160
LOS ANGELES TIMES	163	200
	903	77
	921	557
	926	7
MAJOR MAILERS ASSOCIATION	903	2,000
MATTHEWS PUBLISHING GROUP, LLC	910	3,650
MAXAR INTELLIGENCE, INC.	807	9,901
MITCHELL1	184	94,902
NATURAL GAS VEHICLES FOR AMERICA	426	8,894
	910	43,423
NEWSDATA, LLC	807	1,888
	921	1,888

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
NORTH AMERICAN ENERGY STANDARDS BOARD	850	8,000
NORTH AMERICAN GAS HEAT PUMP COLLABORATIVE	908	50,000
ODG	925	9,775
OFFICE OF WATER PROGRAMS	850	325
	921	220
	925	125
	930	432
OIL PRICE INFORMATION SERVICE, LLC	807	9,828
PEAK LOAD MANAGEMENT ALLIANCE	908	2,700
PETROLEUM ECONOMIST	908	7,275
PIPELINE ASSOCIATION FOR PUBLIC AWARENESS	909	4,858
PROJECT MANAGEMENT INSTITUTE	107	347
	108	1
	163	174
	814	686
	824	105
	850	2,176
	859	60
	863	60
	870	320
	880	1,350
	903	338
	908	368
	910	554
	921	1,034
	925	179
	930	318
RBN ENERGY, LLC	807	900
	921	1,080
RISA TECH, INC.	850	2,347
	870	2,347
S&P GLOBAL, INC.	814	7,972
	870	56,555
	908	174,999
	921	7,972
	928	14,631
SALESFORCE, INC.	921	2,700
SAORADH ENTERPRISE PARTNERS	908	50,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
SCHOOL NUTRITION ASSOCIATION	908	610
SOCIETY FOR HUMAN RESOURCE MANAGEMENT	908	244
	921	1,357
	930	244
SOCIETY OF HISPANIC PROFESSIONAL ENGINEERS	850	65
	923	45,000
SOCIETY OF PETROLEUM ENGINEERS	163	130
	807	130
	814	420
STANFORD UNIVERSITY	186	100,000
	908	100,000
STERICYCLE	921	1,786
STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA	850	315
	870	330
SULLIVAN ON COMP	925	2,280
SURVEY MONKEY	163	550
	870	900
	908	1,428
	921	468
	930	99
TECHSTREET, LLC	870	1,190
THE ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA	850	647
THE CALIFORNIA CLUB	426	8,066
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	930	6,000
THE STATE BAR OF CALIFORNIA	921	20,027
	930	510
THE UNIVERSITY CLUB ATOP SYMPHONY TOWERS	426	1,645
THE UNIVERSITY OF TEXAS AT AUSTIN	850	3,500
	870	3,500
THE WALL STREET JOURNAL	807	546
	908	910
TRIMBLE, INC.	850	1,576
	870	419

SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023

1. MEMBERSHIPS - DUES & SUBSCRIPTIONS

PAID TO	ACCOUNT CHARGED	TOTAL
TULARE COUNTY FARM BUREAU	908	2,500
TVEYES, INC.	921	3,600
UCLA ANDERSON FORECAST	928	3,000
UNITED AIRLINES	426	550
UTILITY SAFETY AND OPS LEADERSHIP NETWORK	925	620
VIADATA, LP	814	369
	850	4,395
	870	5,934
	925	1,030
WACHETE	814	507
WAVELENGTH AUTOMATION, INC.	921	2,148
WELLSAID LABS, INC.	921	1,069
WESTERN ENERGY INSTITUTE	921	49,781
WOLTERS KLUWER	921	220,442
WOOD MACKENZIE	908	78,361
WORLD AT WORK	921	530
Total		3,332,876

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
AARVORG, INC.	500
AIRPORT MARINA COUNSELING SERVICE	1,000
ALMA FAMILY SERVICES	2,500
ALTAMED HEALTH SERVICES CORPORATION	5,000
ALTASEA AT THE PORT OF LOS ANGELES	15,000
AMELIA MOLLOYS ANGELS	1,000
AMERICAN ASSOCIATION OF BLACKS IN ENERGY (AABE)	50,000
AMERICAN ASSOCIATION OF BLACKS IN ENERGY OF SOUTHERN CALIFORNIA	2,500
AMERICAN CANCER SOCIETY, INC.	500
AMERICAN INDIAN CHAMBER EDUCATION FUND	1,750
AMERICAN PUBLIC WORKS ASSOCIATION - SOUTHERN CALIFORNIA CHAPTER	3,000
AMERICAN YOUTH SOCCER ORGANIZATION	1,000
ANAHEIM COMMUNITY FOUNDATION	3,000
ANAHEIM FAMILY YMCA	2,500
ANGELS' CLOSET CHARITIES	500
ANTELOPE VALLEY BOYS AND GIRLS CLUB	2,500
ANTELOPE VALLEY YMCA	1,000
ARCADIA IMPROVEMENT ASSOCIATION	1,500
ARCHDIOCESAN YOUTH EMPLOYMENT SERVICES	500
ARMENIAN AMERICAN MUSEUM AND CULTURAL CENTER OF CALIFORNIA	5,000
ARROWHEAD UNITED WAY	650
ART OF LIFE CANCER FOUNDATION, INC.	3,500
ARTS CONNECTION	2,500
ASIAN AMERICAN JOURNALISTS ASSOCIATION	1,500
ASIAN YOUTH CENTER	5,000
ASSISTANCE LEAGUE OF SAN BERNARDINO	3,500
BIPARTISAN POLICY CENTER, INC.	100,000
BLACK BUSINESS ASSOCIATION - LOS ANGELES	5,000
BLACK VOICE FOUNDATION	500
BOYS AND GIRLS CLUB OF FONTANA	2,500
BOYS AND GIRLS CLUB OF HUNTINGTON VALLEY	2,500
BOYS AND GIRLS CLUB OF THE SAN GORGONIO PASS	1,500
BOYS AND GIRLS CLUB OF TULARE COUNTY	2,500
BOYS AND GIRLS CLUB OF WEST SAN GABRIEL VALLEY	2,500
BOYS AND GIRLS CLUBS OF GREATER ANAHEIM-CYPRESS	1,000
BOYS AND GIRLS CLUBS OF GREATER REDLANDS-RIVERSIDE	1,450
BOYS AND GIRLS CLUB OF LAGUNA BEACH	700
BOYS AND GIRLS CLUB OF SANTA ANA, INC.	1,000
BOYS AND GIRLS CLUBS OF KERN COUNTY	2,500
BOY S REPUBLIC	4,750
BREA OLINDA HIGH SCHOOL ASSOCIATED STUDENT BODY	500
BRIDGE TO HOME - SCV	2,500
BROTHERS OF THE DESERT CORPORATION	1,000
BUILDERS FOR BETTER COMMUNITIES FOUNDATION	1,750
BURN INSTITUTE - INLAND EMPIRE (FIRE AND BURN FOUNDATION)	2,500
CAL STATE FULLERTON PHILANTHROPIC FOUNDATION	1,000
CALIFORNIA CENTER FOR PUBLIC POLICY	1,250
CALIFORNIA COUNTIES FOUNDATION, INC.	4,000
CALIFORNIA FORWARD	5,000
CALIFORNIA FOUNDATION ON THE ENVIRONMENT AND THE ECONOMY	19,000
CALIFORNIA INSTITUTE OF TECHNOLOGY	4,000
CALIFORNIA LEGISLATIVE BLACK CAUCUS POLICY INSTITUTE	42,500
CALIFORNIA MARINE SANCTUARY FOUNDATION	1,000
CALIFORNIA SCIENCE CENTER FOUNDATION	25,000
CALMATTERS	18,000
CAROL S KITCHEN	1,500
CARS ARE BASIC	1,500
CENTRAL COAST JUNIOR GOLF, INC.	1,700
CERRITOS 1ST COMBAT ENGINEER BATTALION ADOPTION COMMITTEE	1,500
CHAMPIONS RECOVERY ALTERNATIVE PROGRAM, INC.	4,000
CHAPMAN UNIVERSITY	5,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
CHARITABLE VENTURES OF ORANGE COUNTY, INC.	8,500
CHARTER OAK PARTNERS IN EDUCATION	500
CHILDREN'S FUND, INC.	1,000
CHILDRENS MUSEUM AT LA HABRA	500
CHINESE ASSOCIATION OF WEST COVINA - CAAWC	500
CHINO POLICE OFFICERS FOUNDATION	1,000
CHOC FOUNDATION DBA CHOC CHILDREN'S FOUNDATION	1,000
CHRISTMAS CHEER ALL-YEAR PROGRAM	1,500
CIRCLE OF HOPE	1,500
CITY OF MORENO VALLEY, MORENO VALLEY COMMUNITY FOUNDATION	500
CITYSERVE NETWORK	1,500
COACHELLA VALLEY ECONOMIC PARTNERSHIP	5,000
COLAB FOUNDATION	1,500
COLETTES CHILDREN HOME, INC.	2,000
COMMUNITY FAMILY GUIDANCE CENTER, ADMIN OFFICE	2,250
COMMUNITY HEALTH INITIATIVE OF ORANGE COUNTY	500
COMMUNITY PARTNERS FOR AABLI	2,500
COMMUNITY PARTNERS, VERDEXCHANGE INSTITUTE	15,000
COMMUNITY WOMEN VITAL VOICES, INC.	1,000
CONEJO FUTURE FOUNDATION	2,500
CORONA CHAMBER FOUNDATION	1,500
CULVER CITY ARTS FOUNDATION	1,000
CYPRESS COLLEGE FOUNDATION	3,500
CYPRESS POLICE FOUNDATION	1,500
DELHI COMMUNITY CENTER	1,500
DESERT AIDS PROJECT	1,000
DESERT CANCER FOUNDATION	1,500
DIAMOND BAR COMMUNITY FOUNDATION	2,450
DISABILITY IN	6,000
DOWNTOWN WOMEN'S CENTER	5,000
ECONOMIC ALLIANCE FOUNDATION	3,500
ECONOMIC ALLIANCE OF THE SAN FERNANDO VALLEY	2,500
EL CAMINO COLLEGE FOUNDATION	2,500
EL CONCILIO DEL CONDADO DE VENTURA	6,300
ENERGY INDEPENDENCE NOW	1,750
FAITH IN ACTION OF SAN GORGONIO PASS	500
FAMILY PROMISE OF THE VERDUGOS	2,500
FIRST TEE - SILICON VALLEY	9,000
FISH REEF PROJECT	1,000
FLINTRIDGE CENTER	1,000
FOR THE LOVE OF OUR VETERANS, INC.	1,000
FORGIVING FOR LIVING	2,500
FOUNDATION FOR WOMEN WARRIORS	500
FOUNTAIN VALLEY COMMUNITY FOUNDATION	500
FOUNTAIN VALLEY KIWANIS CLUB FOUNDATION	1,500
FRIENDS OF CABRILLO MARINE AQUARIUM	5,000
FRIENDS OF HART PARK	1,500
FRIENDS OF POMONA POLICE K9 FOUNDATION	500
FRIENDS OF THE CHILD ADVOCATES	5,000
FRIENDS OF THE COLISEUM	25,000
FRIENDS OF THE DESERT MOUNTAINS	1,000
FRIENDS OF THE DIAMOND BAR LIBRARY	1,500
GARDEN PATHWAYS, INC.	1,250
GENERACIONES CHURCH	500
GIRL SCOUT COUNCIL OF ORANGE COUNTY	2,500
GIRLS INCORPORATED OF ORANGE COUNTY, ADMINISTRATIVE OFFICE	500
GLENDALE EDUCATIONAL FOUNDATION	1,750
GOVERNORS CUP FOUNDATION, INC.	11,000
GREATER LA AFRICAN AMERICAN CHAMBER OF COMMERCE EDUCATION FUND	1,500
GREATER PALM SPRINGS PRIDE, INC.	1,000
GREEN HYDROGEN COALITION	150,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
GREEN ROSE PRODUCTIONS	500
HABITAT FOR HUMANITY INLAND VALLEY, INC.	500
HANFORD MULTICULTURAL THEATER COMPANY, INC.	1,500
HIGH SCHOOL INC ACADEMIES FOUNDATION	500
HIGHLAND SENIOR CENTER	1,425
HISPANAS ORGANIZED FOR POLITICAL EQUALITY	10,000
HOFFMANN HOSPICE OF THE VALLEY, INC.	1,000
HOMES FOR FAMILIES	2,500
HOPE THROUGH HOUSING FOUNDATION	500
HOURLASS PROJECT	2,500
IDEATELABS	3,000
IRWINDALE EDUCATION FUND	1,000
JULIUS GUIS MEMORIAL ROTARY FOUNDATION	5,000
JUVENTUD ENRIQUECIMIENTO MUSICA Y ARTES FOUNDATION	2,500
K I S FOUNDATION, INC.	2,500
KERN ATHLETIC FENCING FOUNDATION, INC.	500
KERN COUNTY HISPANIC CHAMBER OF COMMERCE BUSINESS EDUCATION FOUNDATION	1,000
KERN ECONOMIC DEVELOPMENT FOUNDATION	1,250
KID-FIT PRESCHOOL HEALTH AND FITNESS ORGANIZATION	750
KIWANIS CLUB OF ATASCADERO FOUNDATION	3,500
KIWANIS CLUB OF DIAMOND BAR YOUNG PROFESSIONALS	1,000
KIWANIS CLUB OF REDONDO BEACH FOUNDATION	2,000
KIWANIS CLUB OF TULARE FOUNDATION	500
KIWANIS OF HUNTINGTON PARK	500
KOREAN AMERICAN CENTER	1,000
KOREATOWN YOUTH AND COMMUNITY CENTER, INC.	4,500
LA CASA DE SAN GABRIEL COMMUNITY CENTER	1,500
LA HABRA MEALS ON WHEELS	1,000
LA PALMA COMMUNITY FOUNDATION	1,000
LABOR COMMUNITY SERVICES PROGRAM OF LOS ANGELES	12,000
LATINA LAWYERS BAR ASSOCIATION	2,500
LATINA LEADERS OF KERN COUNTY	1,500
LATINO LEADERS NETWORK	7,500
LATINO LEGISLATIVE CAUCUS FOUNDATION	6,250
LAX COASTAL EDUCATION FOUNDATION	5,000
LINCOLN TRAINING CENTER AND REHABILITATION WORKSHOP	1,000
LOS ANGELES ALLIANCE FOR A NEW ECONOMY	5,000
LOS ANGELES BROTHERHOOD CRUSADE, INC.	7,500
LOS ANGELES CITY COLLEGE FOUNDATION	1,500
LOS ANGELES CONSERVATION CORPS, ADMINISTRATIVE OFFICE	2,500
LOS ANGELES COUNTY FIRE DEPARTMENT FOUNDATION, WOMEN S FIRE LEAGUE	2,000
LOS ANGELES ECONOMIC DEVELOPMENT CORPORATION	42,000
LOS ANGELES FIRE DEPARTMENT FOUNDATION	35,500
LOS ANGELES LATINO CHAMBER OF COMMERCE FOUNDATION	5,000
LOS ANGELES PORT POLICE BAKER 2 VEGAS TEAM	500
LOS ANGELES RAMS FOUNDATION	5,000
LOS ANGELES UNIFIED SCHOOL DISTRICT EDUCATION FOUNDATION	2,000
LOVE THEM ALL FOUNDATION	2,000
LTSC COMMUNITY DEVELOPMENT CORPORATION - LITTLE TOKYO SERVICE CENTER	2,500
MENIFEE INTERFAITH AND COMMUNITY SERVICE COUNCIL	500
MENIFEE VALLEY BOYS AND GIRLS CLUB	500
MERCI-MENTALLY AND EDUCATIONALLY RETARDED CITIZENS	1,012
MEXICAN AMERICAN OPPORTUNITY FOUNDATION	5,000
MIGUEL CONTRERAS FOUNDATION	5,000
MOJAVE ENVIRONMENTAL EDUCATION CONSORTIUM	750
MONETA GARDENS IMPROVEMENT, INC.	500
MONTEBELLO-COMMERCE YMCA	1,500
MORENO VALLEY COMMUNITY FOUNDATION	2,500
MU XI LAMBDA CHAPTER OF ALPHA PHI ALPHA FRATERNITY, INC.	500
MURRIETA PARTNERSHIP, INC.	1,500
MUSEUM OF LATIN AMERICAN ART	5,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
MYCHALS LEARNING PLACE	1,200
NATIONAL ASSOCIATION OF MINORITY CONTRACTORS	1,500
NATIONAL LATINA BUSINESS WOMEN ASSOCIATION - IE INSTITUTE	1,500
NATIONAL WATER RESEARCH INSTITUTE	1,000
NOR EDUCATION COMMUNITY FUND	2,000
NORTH VALLEY FAMILY YMCA	5,250
NORTHEAST VALLEY HEALTH CORPORATION	2,500
NORTHERN SANTA BARBARA COUNTY UNITED WAY, INC.	2,000
OAK GROVE - CENTER FOR EDUCATION TREATMENT AND THE ARTS	500
ONTARIO CHAMBER OF COMMERCE FOUNDATION - PURPLE HEARTS	950
ONTARIO-MONTCLAIR SCHOOLS FOUNDATION	1,400
ORANGE COUNTY ASIAN AND PACIFIC ISLANDER COMMUNITY ALLIANCE	1,500
ORANGE COUNTY CHILDRENS THERAPEUTIC ARTS CENTER	700
ORANGE COUNTY COASTKEEPER	1,500
ORANGE COUNTY COMMUNITY FOUNDATION	3,000
ORANGE COUNTY CRIME STOPPERS	2,500
ORANGE COUNTY CURRENT AFFAIRS FORUM	5,000
ORANGE COUNTY POLICE CANINE ASSOCIATION	600
ORANGE COUNTY UNITED WAY	5,000
PACIFIC ASIAN CONSORTIUM IN EMPLOYMENT	5,000
PACIFIC CREST YOUTH ARTS ORGANIZATION	4,000
PALM SPRINGS AIR MUSEUM	1,000
PARKSIDE ECONOMIC DEVELOPMENT	1,500
PEPPERDINE UNIVERSITY	1,500
PRECIOUS LIFE SHELTER	1,000
PROFESSIONAL WOMENS ROUNDTABLE	500
PROJECT HOPE CALIFORNIA, INC.	500
PROTEUS, INC., ADMINISTRATION	600
PS TRAVELING DANCE COMPANY	500
R H BUCKBOARD DAYS PARADE	1,000
RANCHO CUCAMONGA FIREFIGHTERS ASSOCIATION	500
REACHING HIGHER	500
REDLANDS COMMUNITY FOUNDATION	1,000
REDLANDS HIGH SCHOOL VOCAL MUSIC BOOSTERS	1,000
REDLANDS TERRIERS BENCHWARMERS ASSOCIATION	500
REGALETTES SOCIAL AND CHARITY CLUB	1,300
REGENTS OF THE UNIVERSITY OF CALIFORNIA	25,000
REGENTS UNIVERSITY OF CALIFORNIA LOS ANGELES	6,000
REGIONAL ACCESS PROJECT FOUNDATION	1,500
RIVERSIDE COUNTY WORKS	1,000
RIVERSIDE LAND CONSERVANCY	1,750
ROTARY CLUB OF MENIFEE CALIFORNIA FOUNDATION	1,000
S T R E A M GLOBAL INNOVATIONS, INC.	2,500
SALESIAN FAMILY YOUTH CENTER	1,000
SAN BERNARDINO COUNTY MUSEUM	500
SAN BERNARDINO COUNTY SAFETY EMPLOYEES BENEFIT ASSOCIATION CHARITY	5,000
SAN BERNARDINO VALLEY COLLEGE FOUNDATION	2,500
SAN GABRIEL VALLEY HABITAT FOR HUMANITY	500
SANTA BARBARA FORESTERS	1,825
SANTA BARBARA POLICE ACTIVITIES LEAGUE	1,500
SANTA BARBARA ZOOLOGICAL FOUNDATION	2,500
SANTA CLARITA BALLET COMPANY, INC.	1,000
SANTA CLARITA VALLEY BOYS AND GIRLS CLUB	3,500
SANTA CLARITA VALLEY ECONOMIC DEVELOPMENT CORPORATION	2,750
SANTA CLARITA VALLEY SHERIFF S FOUNDATION	1,500
SCHOLARSHIP AMERICA	30,215
SCIENCE AND TECHNOLOGY EDUCATION PARTNERSHIP	1,000

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
SEQUOIA RIVERLANDS TRUST	3,000
SHAFTER LIONS FOUNDATION	1,000
SHERIFFS EMPLOYEE ASSISTANCE TEAM, INC.	2,500
SONNY HORSES 4 KIDS	2,200
SOROPTIMIST INTERNATIONAL OF CORONA	500
SOROPTIMIST INTERNATIONAL OF THE AMERICAS, INC.	1,500
SOUTH BAY WORKFORCE CONSORTIUM	2,000
SOUTHEAST COMMUNITY DEVELOPMENT CORPORATION	1,000
SOUTHEAST-RIO VISTA YMCA	1,500
SOUTHERN CALIFORNIA MINORITY BUSINESS DEVELOPMENT COUNCIL	13,000
SPIRITT FAMILY SERVICES	2,500
STAGECOACH DAYS ASSOCIATION	500
STUDENT OF THE MONTH PROGRAM, INC.	1,500
TARAS CHANCE	1,000
TARGET 8, ADVISORY COUNCIL, INC.	10,000
TENEMOS QUE RECLAMAR Y UNIDOS SALVAR LA TIERRA-SOUTH LA	2,000
THE ASSOCIATION OF WOMEN IN WATER, ENERGY AND ENVIRONMENT	3,000
THE COMMUNITY FOUNDATION	725
THE EAST LOS ANGELES COMMUNITY UNION (TELACU) EDUCATION FOUNDATION	1,400
THE ECOLOGY CENTER	800
THE EMILY SHANE FOUNDATION	1,000
THE GODDESS MERCADO	1,000
THE KHEIR CENTER	6,000
THE LGBTQ CENTER LONG BEACH	5,000
THE MURRIETA ROTARY FOUNDATION	1,000
THE UCI FOUNDATION	17,500
THE UCLA FOUNDATION	1,000
THE UCLA FOUNDATION, LATINO POLICY AND POLITICS INSTITUTE	5,000
THE WHOLE CHILD	1,000
THOMAS HOUSE TEMPORARY SHELTER	500
THRIVE SANTA ANA	500
TOYS FOR TOTS FOUNDATION	2,000
TREE FOUNDATION OF KERN	2,500
TULARE COUNTY OFFICE OF EDUCATION FOUNDATION	5,000
TULE BASIN LAND AND WATER CONSERVATION TRUST	1,000
TUSTIN COMMUNITY FOUNDATION	500
U C RIVERSIDE FOUNDATION	15,000
UNITED WAY	613,725
UNITED WAY OF LOS ANGELES, GAS ASSISTANCE FUND	6,000,000
UNITE-LA	2,500
UNIVERSITY OF LA VERNE	4,000
USC LATINO ALUMNI ASSOCIATION	36,000
VALLEY CULTURAL CENTER	10,000
VALLEY VILLAGE	2,500
VARIETY BOYS AND GIRLS CLUB	500
VENTURA COMMERCE AND EDUCATION FOUNDATION	1,500
VENTURA COUNTY LEADERSHIP ACADEMY, INC.	5,000
VETERANS IN BUSINESS NETWORK	2,500
VETERANS LEGAL INSTITUTE	2,500
VIA CARE COMMUNITY HEALTH CENTER	1,250
VISALIA ECONOMIC DEVELOPMENT CORPORATION	1,000
VITAL LINK	2,500
WALNUT STATION BOOSTER CLUB	1,000
WALNUT VALLEY ROTARY FOUNDATION	500
WAM BLOCK PARTY, INC.	800
WEINGART YMCA WELLNESS AND AQUATIC CENTER	5,000
WEST COAST CULTURAL ARTS, INC.	2,500
WEST COVINA COMMUNITY SERVICES FOUNDATION, INC.	1,000
WEST END YMCA, SCHEU FAMILY YMA OF UPLAND	500
WEST LOS ANGELES COLLEGE FOUNDATION	4,500
WEST SIDE FOOD BANK A NON-PROFIT CORPORATION	2,020

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
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2. CHARITABLE DONATIONS

PAID TO	ACCOUNT CHARGED:
	426
WESTSIDE COMMUNITY DEVELOPMENT CORPORATION	4,000
WOMEN IN NON TRADITIONAL EMPLOYMENT ROLES, ADMINISTRATIVE OFFICE	1,060
WOMEN S BUSINESS ENTERPRISE COUNCIL-WEST	2,500
WORLD AFFAIRS COUNCIL - LOS ANGELES	855
WRCOG SUPPORTING FOUNDATION	1,295
WYLAND FOUNDATION	500
YMCA METROPOLITAN LOS ANGELES – WILMINGTON YMCA	2,500
YMCA WESTCHESTER FAMILY	1,500
YOUNG LIFE - SANTA BARBARA	1,500
YOUTH EDUCATIONAL SPORTS SCHOLARSHIP	500
YOUTH FOR TRUTH INTERNATIONAL	500
YOUTH HOPE FOUNDATION	1,000
YWCA - GLENDALE	2,500
YWCA OF SAN GABRIEL VALLEY	1,000
ZAWADI CULTURAL COLLECTIVE	1,000
TOTAL	7,936,857

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED: 426
ALHAMBRA CHAMBER OF COMMERCE	2,000
ALISO VIEJO CHAMBER OF COMMERCE	500
ALTADENA CHAMBER OF COMMERCE	2,050
AMERICAN BIOGAS COUNCIL	5,700
AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATION	60,000
AMERICAN GAS ASSOCIATION (AGA)	34,837
AMERICAN INDIAN CHAMBER OF COMMERCE OF CALIFORNIA	12,000
ANAHEIM CHAMBER OF COMMERCE	1,959
ANTELOPE VALLEY CHAMBERS OF COMMERCE	550
ARTESIA CHAMBER OF COMMERCE	550
ASIAN BUSINESS ASSOCIATION OF LOS ANGELES	16,500
ASIAN BUSINESS ASSOCIATION OF ORANGE COUNTY	15,000
ATASCADERO CHAMBER OF COMMERCE	2,980
AV EDGE	5,000
AZUSA CHAMBER OF COMMERCE	1,594
BEAUMONT CHAMBER OF COMMERCE	1,105
BELL CHAMBER OF COMMERCE	4,100
BELLFLOWER CHAMBER OF COMMERCE	800
BEVERLY HILLS CHAMBER OF COMMERCE	2,475
BIOENERGY ASSOCIATION OF CALIFORNIA	5,500
BLACK CHAMBER OF COMMERCE OF ORANGE COUNTY	5,000
BLYTHE AREA CHAMBER OF COMMERCE	1,200
BOYLE HEIGHTS CHAMBER OF COMMERCE	650
BOYLE HEIGHTS STEM MAGNET HIGH SCHOOL, ROBOTICS CLUB	3,000
BRAWLEY CHAMBER OF COMMERCE	630
BREA CHAMBER OF COMMERCE	4,936
BUILDING INDUSTRY ASSOCIATION OF SOUTHERN CALIFORNIA	500
BUILDOUT CALIFORNIA	5,000
BURBANK CHAMBER OF COMMERCE	2,500
CALIFORNIA ASIAN PACIFIC CHAMBER OF COMMERCE	47,500
CALIFORNIA BUILDING INDUSTRY ASSOCIATION	10,000
CALIFORNIA BUSINESS PROPERTIES ASSOCIATION	5,000
CALIFORNIA CARBON SOLUTIONS COALITION	60,000
CALIFORNIA CHAMBER OF COMMERCE	80,000
CALIFORNIA CHAPTER AMERICAN PLANNING ASSOCIATION	7,500
CALIFORNIA CONTRACT CITIES ASSOCIATION	15,000
CALIFORNIA COUNCIL FOR ENVIRONMENTAL AND ECONOMIC BALANCE	105,000
CALIFORNIA FORWARD ACTION FUND	7,500
CALIFORNIA HISPANIC CHAMBER OF COMMERCE	7,500
CALIFORNIA HYDROGEN BUSINESS COUNCIL	37,000
CALIFORNIA ISSUES FORUM	25,000
CALIFORNIA MANUFACTURERS AND TECHNOLOGY ASSOCIATION	8,250
CALIFORNIA NATIONS INDIAN GAMING ASSOCIATION	2,500
CALIFORNIA NATURAL GAS VEHICLE COALITION	4,725
CALIFORNIA RETAILERS ASSOCIATION	6,750
CALIFORNIA TRUCKING ASSOCIATION	6,582
CALIMESA CHAMBER OF COMMERCE	650
CENTRAL CITY ASSOCIATION OF LOS ANGELES	34,000
CENTRAL VALLEY BUSINESS FEDERATION	50,000
CERRITOS CHAMBER OF COMMERCE	2,000
CHAMBER OF COMMERCE - CENTURY CITY	3,100
CHAMBER OF COMMERCE - CRENSHAW	2,250
CHAMBER OF COMMERCE - DANA POINT	1,425

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
CHAMBER OF COMMERCE - EAST LOS ANGELES	1,325
CHAMBER OF COMMERCE - LAGUNA BEACH	500
CHAMBER OF COMMERCE - ONTARIO	4,750
CHAMBER OF COMMERCE - SAN CLEMENTE	1,114
CHAMBER OF COMMERCE - SAN JUAN CAPISTRANO	900
CHATSWORTH PORTER RANCH CHAMBER OF COMMERCE	4,000
CHINESE AMERICAN CONSTRUCTION PROFESSIONALS	7,500
CHINESE-AMERICAN ELECTED OFFICIALS, INC.	1,988
CHINO VALLEY CHAMBER OF COMMERCE	3,000
CITY OF BREA	1,500
CITY OF CANYON LAKE	500
CITY OF DUARTE	1,000
CITY OF GLENDALE	1,500
CITY OF MAYWOOD	1,000
CITY OF MENIFEE	500
CITY OF MONROVIA	500
CITY OF RIALTO	1,000
CITY OF ROSEMEAD	500
CITY OF SAN JACINTO	1,000
CITY OF YUCAIPA	1,000
CLAREMONT CHAMBER OF COMMERCE	600
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS	500
COALITION FOR RENEWABLE NATURAL GAS	22,000
COALITION OF LABOR, AGRICULTURE AND BUSINESS OF SAN LUIS OBISPO COUNTY	2,600
COALITION OF LABOR, AGRICULTURE AND BUSINESS - SANTA MARIA CHAPTER	1,100
COLTON CHAMBER OF COMMERCE	500
CORONA CHAMBER OF COMMERCE	10,603
COSTA MESA CHAMBER OF COMMERCE	2,350
COVINA CHAMBER OF COMMERCE	525
CULVER CITY CHAMBER OF COMMERCE	3,325
CYPRESS CHAMBER OF COMMERCE	800
DELANO CHAMBER OF COMMERCE	550
DEMOCRATIC GOVERNORS ASSOCIATION	25,000
DESERT BUSINESS ASSOCIATION	3,000
DESERT VALLEYS BUILDERS ASSOCIATION	2,500
DOWNEY CHAMBER OF COMMERCE	1,710
DOWNTOWN POMONA OWNERS ASSOCIATION	500
DUARTE CHAMBER OF COMMERCE	574
EASTVALE CHAMBER OF COMMERCE	1,350
ECONOMIC DEVELOPMENT CORPORATION OF FRESNO COUNTY	4,650
ECONOMIC DEVELOPMENT CORPORATION OF SOUTHWEST RIVERSIDE COUNTY	4,000
EDC SOUTHWEST CALIFORNIA	2,000
EL CENTRO CHAMBER OF COMMERCE	2,275
EL MONTE / SOUTH EL MONTE CHAMBER OF COMMERCE	1,900
EL SEGUNDO CHAMBER OF COMMERCE	920
FONTANA CHAMBER OF COMMERCE	1,400
FOUNTAIN VALLEY CHAMBER OF COMMERCE	805
FULLERTON CHAMBER OF COMMERCE	3,000
FUTUREPORTS	5,000
GARDEN GROVE CHAMBER OF COMMERCE	849
GARDENA VALLEY CHAMBER OF COMMERCE	600
GATEWAY CHAMBERS ALLIANCE, INC.	500
GLENDDORA CHAMBER OF COMMERCE	975

**SOUTHERN CALIFORNIA GAS COMPANY
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(ORGANIZATIONS PAID \$500 OR MORE)
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3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
GRANADA HILLS CHAMBER OF COMMERCE	1,250
GREATER BAKERSFIELD CHAMBER OF COMMERCE	3,655
GREATER COACHELLA VALLEY CHAMBER OF COMMERCE	3,810
GREATER CONEJO VALLEY CHAMBER OF COMMERCE	5,980
GREATER MONTEREY PARK CHAMBER OF COMMERCE	500
GREATER RIVERSIDE CHAMBERS OF COMMERCE	7,000
GREATER SAN FERNANDO VALLEY CHAMBER OF COMMERCE	3,400
GREATER SHERMAN OAKS CHAMBER OF COMMERCE	3,925
HANFORD CHAMBER OF COMMERCE	700
HARBOR ASSOCIATION OF INDUSTRY AND COMMERCE	2,500
HARBOR TRUCKING ASSOCIATION	2,500
HEMET/SAN JACINTO VALLEY CHAMBER OF COMMERCE	1,154
HERMOSA BEACH CHAMBER OF COMMERCE	1,800
HISPANIC COALITION OF SMALL BUSINESSES	3,000
HOLLYWOOD CHAMBER OF COMMERCE	6,250
HUNTINGTON BEACH CHAMBER OF COMMERCE	1,025
IMPERIAL VALLEY ECONOMIC DEVELOPMENT CORPORATION	8,500
INDUSTRIAL COUNCIL/CHAMBER OF COMMERCE	880
INDUSTRY MANUFACTURERS COUNCIL	1,500
INGLEWOOD/AIRPORT AREA CHAMBER OF COMMERCE	500
INLAND ACTION, INC.	5,419
INLAND EMPIRE ASIAN BUSINESS ASSOCIATION #984	1,500
INLAND EMPIRE ECONOMIC PARTNERSHIP	17,500
IRVINE CHAMBER OF COMMERCE	5,500
IRWINDALE CHAMBER OF COMMERCE	2,400
JURUPA VALLEY CHAMBER OF COMMERCE	500
KERN COUNTY BLACK CHAMBER OF COMMERCE	600
KERN COUNTY HISPANIC CHAMBER OF COMMERCE	500
KERN COUNTY TAXPAYERS ASSOCIATION	4,750
KERN ECONOMIC DEVELOPMENT CORPORATION	12,500
KINGS COUNTY ECONOMIC DEVELOPMENT CORPORATION	3,500
LA HABRA AREA CHAMBER OF COMMERCE	990
LA MIRADA CHAMBER OF COMMERCE	899
LA VERNE CHAMBER OF COMMERCE	1,000
LA VERNE FRIENDS OF THE FOURTH OF JULY	500
LAKE ELSINORE VALLEY CHAMBER OF COMMERCE	2,350
LAKE FOREST CHAMBER OF COMMERCE	1,300
LAKEWOOD CHAMBER OF COMMERCE	1,220
LATIN BUSINESS ASSOCIATION - LOS ANGELES	13,000
LAX COASTAL AREA CHAMBER OF COMMERCE	11,000
LEAGUE OF CALIFORNIA CITIES	20,000
LEMOORE DISTRICT CHAMBER OF COMMERCE	500
LOMITA CHAMBER OF COMMERCE	2,630
LONG BEACH AREA CHAMBER OF COMMERCE	15,000
LONG BEACH LGBTQ+ CHAMBER OF COMMERCE	4,000
LOS ALAMITOS CHAMBER OF COMMERCE	1,250
LOS ANGELES AREA CHAMBER OF COMMERCE	98,000
LOS ANGELES BUSINESS COUNCIL	10,000
LOS ANGELES COUNTY BUSINESS FEDERATION	58,500
LOS ANGELES GAY AND LESBIAN CHAMBER OF COMMERCE	10,000
MALIBU CHAMBER OF COMMERCE	599
MANHATTAN BEACH CHAMBER OF COMMERCE	750
MCKITTRICK ELEMENTARY SCHOOL	500

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
MENIFEE VALLEY CHAMBER OF COMMERCE	550
MOBILITY 21	30,000
MONTEBELLO CHAMBER OF COMMERCE	2,435
MOORPARK CHAMBER OF COMMERCE	650
MORENO VALLEY CHAMBER OF COMMERCE	1,885
MURRIETA CHAMBER OF COMMERCE	3,300
MURRIETA TEMECULA GROUP	700
NATIONAL EXCHANGE CLUB	1,000
NATIONAL GAY AND LESBIAN CHAMBER OF COMMERCE	15,000
NATIONAL PETROLEUM COUNCIL	60,640
NAWBO-CALIFORNIA	17,500
NEWPORT BEACH CHAMBER OF COMMERCE	1,000
NGVAMERICA	10,716
NORTH VALLEY REGIONAL CHAMBER OF COMMERCE	4,000
NORWALK CHAMBER OF COMMERCE	1,540
ORANGE CHAMBER OF COMMERCE	3,600
ORANGE COUNTY BUSINESS COUNCIL	27,550
ORANGE COUNTY PUBLIC AFFAIRS ASSOCIATION	500
ORANGE COUNTY TAXPAYERS ASSOCIATION	5,000
ORANGE COUNTY WOMENS TRANSPORTATION SEMINAR	500
PALM SPRINGS CHAMBER OF COMMERCE	1,000
PALOS VERDES PENINSULA CHAMBER OF COMMERCE	1,345
PARAMOUNT CHAMBER OF COMMERCE	1,495
PASADENA CHAMBER OF COMMERCE	6,060
PASSEDA	2,000
PERRIS VALLEY CHAMBER OF COMMERCE	2,250
PLACENTIA CHAMBER OF COMMERCE	1,825
POMONA CHAMBER OF COMMERCE	2,230
RANCHO CUCAMONGA CHAMBER OF COMMERCE	2,895
RANCHO MIRAGE CHAMBER OF COMMERCE	550
REDLANDS CHAMBER OF COMMERCE	2,755
REDONDO BEACH CHAMBER OF COMMERCE	5,125
REGIONAL BLACK CHAMBER OF COMMERCE OF THE SAN FERNANDO VALLEY	1,500
REGIONAL CHAMBER OF COMMERCE SAN GABRIEL VALLEY	750
REGIONAL HISPANIC CHAMBER OF COMMERCE	2,500
RENEWABLE HYDROGEN ALLIANCE	10,000
RIVERSIDE COUNTY ECONOMIC DEVELOPMENT AGENCY	1,000
ROSEMEAD CHAMBER OF COMMERCE	2,430
RSM CHAMBER OF COMMERCE	500
SACRAMENTO RAINBOW CHAMBER OF COMMERCE	1,500
SAN BERNARDINO CHAMBER OF COMMERCE	690
SAN BERNARDINO COUNTY - ADMINISTRATIVE OFFICE	5,000
SAN DIMAS CHAMBER OF COMMERCE	2,080
SAN GABRIEL VALLEY ECONOMIC PARTNERSHIP	11,000
SAN GABRIEL VALLEY PUBLIC AFFAIRS NETWORK	1,000
SAN LUIS OBISPO CHAMBER OF COMMERCE	990
SAN PEDRO PENINSULA CHAMBER OF COMMERCE	2,500
SANTA ANA CHAMBER OF COMMERCE	4,335
SANTA BARBARA ASSOCIATION OF REALTORS	1,600
SANTA BARBARA COUNTY TAXPAYERS ASSOCIATION	590
SANTA BARBARA SOUTH COAST CHAMBER OF COMMERCE	7,550
SANTA CLARITA VALLEY CHAMBER OF COMMERCE	7,950
SANTA FE SPRINGS CHAMBER OF COMMERCE AND INDUSTRIAL LEAGUE, INC.	1,440

**SOUTHERN CALIFORNIA GAS COMPANY
DUES, DONATIONS, SUBSCRIPTIONS AND CONTRIBUTIONS
(ORGANIZATIONS PAID \$500 OR MORE)
FOR THE YEAR ENDED DECEMBER 31, 2023**

3. NON-CHARITABLE CONTRIBUTIONS

PAID TO	ACCOUNT CHARGED:
	426
SANTA MARIA VALLEY CHAMBER OF COMMERCE	530
SANTA PAULA CHAMBER OF COMMERCE	640
SEAL BEACH CHAMBER OF COMMERCE	500
SIMI VALLEY CHAMBER OF COMMERCE	920
SOLVANG CHAMBER OF COMMERCE	1,250
SOUTH BAY ASSOCIATION OF CHAMBERS OF COMMERCE	2,500
SOUTH BAY CITIES COUNCIL OF GOVERNMENTS	2,500
SOUTH GATE CHAMBER OF COMMERCE	2,000
SOUTH ORANGE COUNTY REGIONAL CHAMBERS OF COMMERCE	2,500
SOUTH VALLEY INDUSTRIAL COLLABORATIVE	500
SOUTHERN CALIFORNIA AIR QUALITY ALLIANCE	2,500
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS	5,000
SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY	6,000
SUSTAIN SOCAL	5,000
TEMECULA VALLEY CHAMBER OF COMMERCE	3,225
TEMPLE CITY CHAMBER OF COMMERCE	1,000
THE FLORENCE-FIRESTONE WALNUT PARK CHAMBER OF COMMERCE	1,000
THE GREATER HUNTINGTON PARK AREA CHAMBER OF COMMERCE	850
THE LATINO CAUCUS OF CALIFORNIA COUNTIES	25,000
TORRANCE AREA CHAMBER OF COMMERCE	3,935
TRI-COUNTY CHAMBER ALLIANCE	3,000
TULARE CHAMBER OF COMMERCE	500
TULARE COUNTY ECONOMIC DEVELOPMENT CORPORATION	5,200
TULARE KINGS HISPANIC CHAMBER OF COMMERCE	2,500
TUSTIN CHAMBER OF COMMERCE	1,000
UNITED CHAMBERS OF COMMERCE	7,500
UPLAND CHAMBER OF COMMERCE	1,720
VALLEY INDUSTRY AND COMMERCE ASSOCIATION	40,000
VENICE CHAMBER OF COMMERCE	4,095
VENTURA CHAMBER OF COMMERCE	5,500
VENTURA COUNTY COALITION OF LABOR AGRICULTURE AND BUSINESS	2,500
VENTURA COUNTY TAX PAYERS ASSOCIATION	3,000
VISALIA CHAMBER OF COMMERCE	1,075
WEST HOLLYWOOD CHAMBER OF COMMERCE	2,500
WEST VENTURA COUNTY BUSINESS ALLIANCE INCORPORATED	1,575
WESTSIDE COUNCIL OF CHAMBERS OF COMMERCE	1,000
WHITTIER AREA CHAMBER OF COMMERCE	2,500
WILMINGTON CHAMBER OF COMMERCE	925
WOODLAND HILLS CHAMBER OF COMMERCE	3,500
WORKING CALIFORNIANS RESEARCH FUND	10,000
YORBA LINDA CHAMBER OF COMMERCE	710
TOTAL	<u>1,692,523</u>

**SOUTHERN CALIFORNIA GAS COMPANY
INTERVENOR COMPENSATION
FOR THE YEAR ENDED DECEMBER 31, 2023**

INTERVENOR	PROCEEDING NAME	PROCEEDING NO.	TOTAL
PROTECT OUR COMMUNITIES FOUNDATION	APPLICATION OF PAC FIC GAS AND ELECTRIC COMPANY FOR APPROVAL OF ENERGY SAVINGS ASSISTANCE AND CAL FORNIA ALTERNATE RATES FOR ENERGY PROGRAMS AND BUDGETS FOR 2021-2026 PROGRAM YEARS. (U39M.)	A. 19-11-003	\$ 11,685
CHARLES GOLDMAN	ORDER NSTITUTING RULEMAKING CONCERNING ENERGY EFFICIENCY ROLL NG PORTFOLIOS, POLICIES, PROGRAMS, EVALUATION, AND RELATED ISSUES.	R. 13-11-005	3,262
CHARLES GOLDMAN	APPLICATION OF SOUTHERN CAL FORNIA EDISON COMPANY (U338E) FOR APPROVAL OF ENERGY EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN.	A. 17-01-013	3,684
SIERRA CLUB CALIFORNIA / EARTHJUSTICE	ORDER NSTITUTING RULEMAKING REGARDING POLICIES, PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM AND RELATED ISSUES.	R. 20-05-012	4,037
NATURAL RESOURCES DEFENSE COUNCIL	ORDER NSTITUTING RULEMAKING CONCERNING ENERGY EFFICIENCY ROLL NG PORTFOLIOS, POLICIES, PROGRAMS, EVALUATION, AND RELATED ISSUES.	R. 13-11-005	12,964
THE UTILITY REFORM NETWORK	ORDER NSTITUTING RULEMAKING TO INVESTIGATE AND DESIGN CLEAN ENERGY F NANCING OPTIONS FOR ELECTRICITY AND NATURAL GAS CUSTOMERS.	R. 20-08-022	4,258
NATIONAL CONSUMER LAW CENTER	APPLICATION OF PAC FIC GAS AND ELECTRIC COMPANY FOR APPROVAL OF ENERGY SAVINGS ASSISTANCE AND CAL FORNIA ALTERNATE RATES FOR ENERGY PROGRAMS AND BUDGETS FOR 2021-2026 PROGRAM YEARS. (U39M.)	A. 19-11-003	14,297
UTILITY CONSUMER ACTION NETWORK	ORDER NSTITUTING RULEMAKING TO INVESTIGATE AND DESIGN CLEAN ENERGY F NANCING OPTIONS FOR ELECTRICITY AND NATURAL GAS CUSTOMERS.	R. 20-08-022	2,827
NATURAL RESOURCES DEFENSE COUNCIL	APPLICATION OF PAC FIC GAS AND ELECTRIC COMPANY FOR APPROVAL OF ENERGY SAVINGS ASSISTANCE AND CAL FORNIA ALTERNATE RATES FOR ENERGY PROGRAMS AND BUDGETS FOR 2021-2026 PROGRAM YEARS. (U39M.)	A. 19-11-003	10,265
THE UTILITY REFORM NETWORK	ORDER NSTITUTING RULEMAKING TO ADOPT BIOMETHANE STANDARDS AND REQU REMENTS, PIPELINE OPEN ACCESS RULES, AND RELATED ENFORCEMENT PROVISIONS.	R. 13-02-008	14,670
NATIONAL DIVERSITY COALITION	ORDER NSTITUTING RULEMAKING TO INVESTIGATE AND DESIGN CLEAN ENERGY F NANCING OPTIONS FOR ELECTRICITY AND NATURAL GAS CUSTOMERS.	R. 20-08-022	7,269
PROTECT OUR COMMUNITIES FOUNDATION	APPLICATION OF SAN DIEGO GAS & ELECTRIC COMPANY (U902M) FOR AUTHORITY, AMONG OTHER THINGS, TO UPDATE ITS ELECTRIC AND GAS REVENUE REQUIREMENT AND BASE RATES EFFECTIVE ON JANUARY 1, 2019.	A. 17-10-007	40,882
THOMAS R. DEL MONTE	APPLICATION OF SOUTHERN CAL FORNIA EDISON COMPANY (U338E) FOR AUTHORITY TO ESTABLISH ITS AUTHORIZED COST OF CAPITAL FOR UTILITY OPERATIONS FOR 2020 AND TO PARTIALLY RESET THE ANNUAL COST OF CAPITAL ADJUSTMENT MECHANISM.	A. 19-04-014	10,286
PROTECT OUR COMMUNITIES FOUNDATION	ORDER NSTITUTING RULEMAKING REGARDING POLICIES, PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM AND RELATED ISSUES.	R. 20-05-012	1,443
LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY	ORDER NSTITUTING RULEMAKING TO IDENT FY DISADVANTAGED COMMUNITIES N THE SAN JOAQUIN VALLEY AND ANALYZE ECONOMICALLY FEASIBLE OPTIONS TO INCREASE ACCESS TO AFFORDABLE ENERGY IN THOSE DISADVANTAGED COMMUNITIES.	R. 15-03-010	8,441

**SOUTHERN CALIFORNIA GAS COMPANY
INTERVENOR COMPENSATION
FOR THE YEAR ENDED DECEMBER 31, 2023**

INTERVENOR	PROCEEDING NAME	PROCEEDING NO.	TOTAL
PROTECT OUR COMMUNITIES FOUNDATION	ORDER NSTITUTING RULEMAKING TO INVESTIGATE AND DESIGN CLEAN ENERGY F NANCING OPTIONS FOR ELECTRICITY AND NATURAL GAS CUSTOMERS.	R. 20-08-022	1,447
THE UTILITY REFORM NETWORK	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	7,509
NATIONAL CONSUMER LAW CENTER	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	8,941
CENTER FOR ACCESS BLE TECHNOLOGY	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	7,657
SMALL BUS NESS UTILITY ADVOCATES	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	10,524
PROTECT OUR COMMUNITIES FOUNDATION	ORDER NSTITUTING NVESTIGATION PURSUANT TO SENATE B LL 380 TO DETERMINE THE FEAS BILITY OF M NIMIZING OR ELIMINATING THE USE OF THE ALISO CANYON NATURAL GAS STORAGE FACILITY LOCATED IN THE COUNTY OF LOS ANGELES WHILE STILL MAINTAINING ENERGY AND ELECTRIC RELIAB LITY FOR THE REGION.	I. 17-02-002	20,271
NATIONAL CONSUMER LAW CENTER	ORDER NSTITUTING RULEMAKING TO CONSIDER NEW APPROACHES TO DISCONNECTIONS AND RECONNECTIONS TO IMPROVE ENERGY ACCESS AND CONTAIN COSTS.	R. 18-07-005	7,945
CENTER FOR ACCESS BLE TECHNOLOGY	ORDER NSTITUTING RULEMAKING TO CONSIDER NEW APPROACHES TO DISCONNECTIONS AND RECONNECTIONS TO IMPROVE ENERGY ACCESS AND CONTAIN COSTS.	R. 18-07-005	8,021
THE UTILITY REFORM NETWORK	ORDER NSTITUTING RULEMAKING TO CONSIDER NEW APPROACHES TO DISCONNECTIONS AND RECONNECTIONS TO IMPROVE ENERGY ACCESS AND CONTAIN COSTS.	R. 18-07-005	10,802
GREENLIN NG INSTITUTE	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	3,272
UTILITY CONSUMER ACTION NETWORK	ORDER NSTITUTING RULEMAKING TO CONSIDER NEW APPROACHES TO DISCONNECTIONS AND RECONNECTIONS TO IMPROVE ENERGY ACCESS AND CONTAIN COSTS.	R. 18-07-005	9,549
THE UTILITY REFORM NETWORK	ORDER NSTITUTING RULEMAKING TO FURTHER DEVELOP A RISK-BASED DECISION-MAK NG FRAMEWORK FOR ELECTRIC AND GAS UT LITIES.	R. 20-07-013	22,806
MUSSEY GRADE ROAD ALLIANCE	ORDER NSTITUTING RULEMAKING TO FURTHER DEVELOP A RISK-BASED DECISION-MAK NG FRAMEWORK FOR ELECTRIC AND GAS UT LITIES.	R. 20-07-013	8,232
SMALL BUS NESS UTILITY ADVOCATES	ORDER NSTITUTING RULEMAKING REGARDING BUILD NG DECARBONIZATION.	R. 19-01-011	4,729
SIERRA CLUB CALIFORNIA / EARTHJUSTICE	ORDER NSTITUTING RULEMAKING TO ADOPT BIOMETHANE STANDARDS AND REQU REMENTS, PIPELINE OPEN ACCESS RULES, AND RELATED ENFORCEMENT PROVISIONS.	R. 13-02-008	26,395
SIERRA CLUB CALIFORNIA / EARTHJUSTICE	ORDER NSTITUTING RULEMAKING TO ADOPT BIOMETHANE STANDARDS AND REQU REMENTS, PIPELINE OPEN ACCESS RULES, AND RELATED ENFORCEMENT PROVISIONS.	R. 13-02-008	26,408

**SOUTHERN CALIFORNIA GAS COMPANY
INTERVENOR COMPENSATION
FOR THE YEAR ENDED DECEMBER 31, 2023**

INTERVENOR	PROCEEDING NAME	PROCEEDING NO.	TOTAL
LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY	ORDER NSTITUTING RULEMAKING TO ADOPT BIOMETHANE STANDARDS AND REQU REMENTS, PIPELINE OPEN ACCESS RULES, AND RELATED ENFORCEMENT PROVISIONS.	R. 13-02-008	22,643
THE UTILITY REFORM NETWORK	ORDER NSTITUTING RULEMAKING REGARDING POLICIES, PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM AND RELATED ISSUES.	R. 20-05-012	7,458
SMALL BUS NESS UTILITY ADVOCATES	ORDER NSTITUTING RULEMAKING REGARDING POLICIES, PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM AND RELATED ISSUES.	R. 20-05-012	9,182
SIERRA CLUB CALIFORNIA / EARTHJUSTICE	ORDER NSTITUTING RULEMAKING REGARDING POLICIES, PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM AND RELATED ISSUES.	R. 20-05-012	4,681
CALIFORNIA ENV RONMENTAL JUSTICE ALLIANCE	ORDER NSTITUTING RULEMAKING REGARDING BUILD NG DECARBONIZATION.	R. 19-01-011	5,503
W LD TREE FOUNDATION	ORDER NSTITUTING RULEMAKING REGARDING BUILD NG DECARBONIZATION.	R. 19-01-011	1,081
PROTECT OUR COMMUNITIES FOUNDATION	ORDER NSTITUTING RULEMAKING TO FURTHER DEVELOP A RISK-BASED DECISION-MAK NG FRAMEWORK FOR ELECTRIC AND GAS UT LITIES.	R. 20-07-013	10,792
CALIFORNIA ENV RONMENTAL JUSTICE ALLIANCE	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	4,976
THE UTILITY REFORM NETWORK	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	4,361
ENVIRONMENTAL DEFENSE FUND	ORDER NSTITUTING RULEMAKING TO ADOPT BIOMETHANE STANDARDS AND REQU REMENTS, PIPELINE OPEN ACCESS RULES, AND RELATED ENFORCEMENT PROVISIONS.	R. 13-02-008	26,421
LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	6,281
CENTER FOR ACCESS BLE TECHNOLOGY	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	7,234
UTILITY CONSUMER ACTION NETWORK	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	3,090
SMALL BUS NESS UTILITY ADVOCATES	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	2,421
ENVIRONMENTAL DEFENSE FUND	ORDER NSTITUTING RULEMAKING TO ADOPT BIOMETHANE STANDARDS AND REQU REMENTS, PIPELINE OPEN ACCESS RULES, AND RELATED ENFORCEMENT PROVISIONS.	R. 13-02-008	18,364
UTILITY CONSUMER ACTION NETWORK	ORDER NSTITUTING RULEMAKING TO ADDRESS ENERGY UT LITY CUSTOMER BILL DEBT ACCUMULATED DUR NG THE COVID-19 PANDEMIC.	R. 21-02-014	7,850
UTILITY CONSUMER ACTION NETWORK	ORDER NSTITUTING RULEMAKING TO FURTHER DEVELOP A RISK-BASED DECISION-MAK NG FRAMEWORK FOR ELECTRIC AND GAS UT LITIES.	R. 20-07-013	9,916
ENVIRONMENTAL DEFENSE FUND	APPLICATION OF PAC FIC GAS AND ELECTRIC COMPANY FOR AUTHORITY TO ESTABLISH ITS AUTHORIZED COST OF CAPITAL FOR UT LITY OPERATIONS FOR 2023 AND TO RESET THE COST OF CAPITAL ADJUSTMENT MECHANISM (U39M).	A. 22-04-008	17,852

**SOUTHERN CALIFORNIA GAS COMPANY
INTERVENOR COMPENSATION
FOR THE YEAR ENDED DECEMBER 31, 2023**

INTERVENOR	PROCEEDING NAME	PROCEEDING NO.	TOTAL
THE UTILITY REFORM NETWORK	APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY (U904G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U902G) FOR AUTHORITY TO ESTABLISH A GAS RULES AND REGULATIONS MEMORANDUM ACCOUNT.	A. 22-05-005	14,337
UTILITY CONSUMER ACTION NETWORK	ORDER INSTITUTING RULEMAKING TO CONSIDER NEW APPROACHES TO DISCONNECTIONS AND RECONNECTIONS TO IMPROVE ENERGY ACCESS AND CONTAIN COSTS.	R. 18-07-005	1,465
		TOTAL	<u>520,686</u>

Exhibit N



Angeles Link Quarterly Report (Phase One) Appendices

For the Period December 21, 2022 through March 31,
2023

Appendix 1
Attendee list for first PAG
and CBOSG meetings,
including those invited

PAG Invite and Attendance Summary

Industry/Sector	PAG Organization Member	Participant	3.15.23 Attended
Fuels	1 CA Hydrogen Business Council	Katrina Fritz, Executive Director	X
	2 Green Hydrogen Coalition*	Nicholas Connell, Policy Director	
	3 Clean Energy*		
	4 Air Products*	JP Gunn, Director, Hydrogen (HyCo) Business Manager	X
	5 Indicated Shippers*		
	6 Bloom Energy*	Christina Tan, Sr. Energy & Environmental Policy Manager	X
Labor	7 ILWU 13	Mark Jurisic, Representative for Local 13	X
	8 California State Pipe Trades Council*	Rodney Cobos, Business Manager/Financial Secretary	X
	9 Utility Workers Union of America 132*	Mike Cormode, North Coastal Representative	X
	10 Utility Workers Union of America 483*	Ernie Shaw, President	X
Heavy Duty Truck	11 Harbor Trucking Association	Matt Schrap, CEO	X
	12 Port of Los Angeles	Mike Galvin, Director of Waterfront and Commercial Real Estate	X
	13 City of Long Beach*	Mario Cordero, Executive Director, Port of Long Beach	
Research/Academia	14 UC Davis Sustainable Transportation Energy Pathways	Lew Fulton, Director, STEPS (Sustainable Transportation Energy Pathways)	
	15 UCI Advanced Power and Energy Program	Jack Brouwer, Professor of Mechanical and Aerospace Engineering	
	16 University California Riverside	Arun Raju, Associate Director of Operations at the Center for Environmental Research and Technology	
Industry	17 Southern California Leadership Council	Rich Lambros, Managing Director	
Manufacturing	18 California Manufacturers and Technology Association	Lance Hastings, President and CEO	
Electric Generation	20 LADWP	Marty Adams, General Manager & Chief Engineer	
	21 Independent Energy Producers Association*	Jan Smutny Jones, CEO	
	22 Southern California Generation Coalition*	Norman Pedersen, HANNA AND MORTON LLP	X
Environmental	23 Environmental Defense Fund**	Michael Colvin, Director, Regulatory and Legislative Affairs	X
	24 Natural Resources Defense Council*	Pete Budden, State and Regional Hydrogen Policy	X
	25 Sierra Club**		
Enviro Justice	26 Protect our Communities Foundation**		
	27 Environmental Justice League**	Russell Lowery, Managing Partner, High View Strategies	X
	28 Communities for Better Environment (CEJA?)*	Roberto Cabrales, CBE Southern California Program Co-Director	X
Disadvantaged Com.	29 TBD-Open Spot**		
Local Gov.	30 Reimagine LA**	Raul Claros, Co-Founder and Chief Strategist	X
	31 Southern CA Association of Governments	Kome Ajise, Executive Management	
Ratepayers	32 Cal Advocates*	Chris Myers, Public Utilities Regulatory Analyst	
	33 The Utility Reform Network*	Marna Anning, Energy and Climate Attorney	
	34 Utility Consumers' Action Network*	Tyson Siegle, Principal Consultant, Clean Energy Strategies	X
Water	35 Agricultural Energy Consumers Association*	Michael Boccadoro, Executive Director, Dairy Cares	X
	36 Southern California Water Coalition	Charley Wilson, Executive Director	X
	37 Metropolitan Water District	Deven Upadhyay, Assistant General Manager and COO	
ARCHES	38 ARCHES	Angelina Galiteva	
	39 GoBiz	Dee Dee Myers, Dir. of Governor's Office of Business and Economic Development	
Agencies	40 California Energy Commission***	Rizaldo E. Aldas, Energy Generation Research Branch	X
	41 California Air Resources Board***	Steve Cliff, Executive Officer	
	42 CPUC Energy & Safety Divisions***	Jack Chang, Senior Regulatory Analyst, Building Decarbonization and Renewable Gas, Energy Division	X
	43 SCAQMD	Wayne Nastri, Executive Officer	

*Parties (intervenor comp)

**CBO Compensation

*** Mentioned in ALMA

This color indicates an accepted invitation

This color indicates no response

This color indicates potential new PAG member in accordance with ALMA FD

X indicates participation in 3.15.23 Kick-Off meeting

Angeles Link CBOSG 1st Quarterly Meeting Attendees			
	First Name	Last Name	CBO Organization Member
1	Rashad	Rucker-Trapp	Reimagine LA Foundation
2	Marc	Carrel	Breathe Southern California
3	Curtis	Silvers	Brotherhood Crusade
4	Christopher	Arroyo	California Public Utilities Commission
5	Jack	Chang	California Public Utilities Commission
6	Daisy	Ma	Chinatown Service Center
7	Ricardo	Mendoza	Coalition for Responsible Community Development
8	Theo	Caretto	Communities for A Better Environment
9	Hyepin	Im	Faith and Community Empowerment (FACE)
10	Steve	Kang	Koreatown Youth + Community Center
11	Luis	Pena	LA Indigenous People's Alliance
12	Ronnie	Han	LA Más
13	Rene	Williams	Los Angeles City/County Native American Indian Commission
14	Maiesha	Kif	Los Angeles Urban League
15	Dr. Ciriaco "Cid"	Pinedo	Mexican American Opportunity Foundation
16	Araksya	Nordikyan	PESA (Parents,Educators/Teachers & Students in Action)
17	Devapriya	Roy	PESA (Parents,Educators/Teachers & Students in Action)
18	Enrique	Aranda	Soledad Enrichment Action
19	Andrea	Wiliams	Southside Coalition of Community Health Centers
20	Lucy	Castro	Southside Coalition of Community Health Centers
21	Lorna	Avila	T.R.U.S.T. South LA
22	Reginald	Johnson	Willowbrook Inclusion Network
23	Robert	Battles	Willowbrook Inclusion Network
24	Gerry	Salcedo	YMCA of Metropolitan Los Angeles
25	Maria	Mendoza	YMCA of Metropolitan Los Angeles

Total CBOs Attendees:

25

Invited CBOSG Members

CBO Organization Member
Coalition for Clean Air
Communities for a Better Environment
East Yard Communities
LA Nature for All
Moving Forward Network
Pacoima Beautiful
Physicians for Social Responsibility
Strategic Concepts in Organizing and Policy Education
Mujeres de la Tierra
Coalition for a Safe Environment
California Environmental Justice Alliance
Breathe SoCal
Greenlining Institute
Natural Resources Defense Council*
Environmental Defense Fund**
Sierra Club**
Protect our Communities Foundation**
Environmental Justice League**
Comunidades Indigenas En Liderazgo (CIELO)
Los Angeles City/County Native American Indian Commission
Brotherhood Crusade
Koreatown Youth Community Center
American Indian Chamber of Commerce
LA Urban League
TRUST South LA
Southeast Rio Vista YMCA
Mexican American Opportunity Fund
Alma Family Services
VIA Care
CA Greenworks
Reimagine LA
Clergy and Laity United for Economic Justice (CLUE)
Proyecto Pastoral
Faith and Community Empowerment (FACE)
LA Voice
Parent Institute for Quality Education (PIQE)
THINK Together
Long Beach Forward
Coalition for Repsonsible Community Development
AltaMed
Los Angeles Indigenous People's Alliance
Watts Labor Community Action Committee
Willowbrook Inclusive Network
Asian American Advancing Justice
Southside Coalition of Community Health Centers
Watts/Century Latino Organization

**Parties (intervenor comp)*

***CBO Compensation*

**** Mentioned in ALMA*

Exhibit O



Angeles Link
Technical Approach for Phase One Studies

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INTRODUCTION

SoCalGas is undertaking a series of studies consistent with the California Public Utilities Commission's (CPUC) Decision Approving the Angeles Link Memorandum Account to Record Phase One Costs (Decision 22-12-055) (Decision).

As part of SoCalGas' effort to provide transparency to the Planning Advisory Group (PAG) and Community Based Organization Stakeholder Group (CBOSG) members, we have proposed a study milestone review and feedback process. PAG and CBOSG members have been provided the opportunity to review descriptions of work for each Phase One feasibility study (Milestone or Step 1) and will be provided with the opportunity to review and provide feedback on technical approaches (i.e., methodology), data and preliminary findings, and study draft reports. This document provides the second step in the review and feedback process, which is the technical approach for each study being conducted under Phase One of the Angeles Link Project (Project). Technical approaches presented reflect feedback provided by PAG and CBO members on Phase One descriptions of work. Each technical approach is being provided to both PAG and CBOSG members for feedback. SoCalGas views the work being conducted for each of the studies to be part of an iterative process, and will seek feedback from the PAG, CBOSG, and other stakeholders as the work progresses. The work may be modified and adapted as feedback is received and additional information is generated, as appropriate.

The technical approach for each study is categorized by three workstreams: Market Assessment & Alternatives, Regulatory, Policy & Environmental, and Engineering Design. This follows the same format that was provided in the Phase One Study Description to PAG/CBOSG members on July 6th, 2023.

MARKET ASSESSMENT & ALTERNATIVES TECHNICAL APPROACH

Project Options & Alternatives

Overview

The Decision provides for Order Paragraph (OP 6 (d)) SoCalGas to consider and evaluate Project options and alternatives, including a localized hydrogen hub or other decarbonization alternatives such as electrification. SoCalGas is also required (OP 3 (c)) to study a localized hydrogen hub solution under the specifications required to be eligible for federal funding as part of Phase One. This study will evaluate Project options, hydrogen pipeline alternatives, including a localized hydrogen hub, and other alternatives, including electrification and hydrogen delivery alternatives like trucking.

Technical Approach

SoCalGas will 1) identify and evaluate a range of options to the proposed Project that may meet the Project's purpose, need, and objectives, and 2) compare the Project to hydrogen pipeline alternatives and other alternatives. Other alternatives include:

- Non-hydrogen alternatives (e.g., electrification)
- Hydrogen delivery alternatives (e.g., trucking, in-basin production).

The underlying purpose of the Project, along with potential project options and alternatives that may be studied, are set forth within the Scope of Work Descriptions for Phase One Studies.

[1\) Hydrogen pipeline system options and alternatives](#)

Information for the *Project Options & Alternatives Study* will be compiled from work being completed within other Angeles Link Phase 1 studies including:

- *Preliminary Routing/Configuration Analysis*
- *Pipeline Sizing & Design Criteria*
- *High-Level Economic Analysis & Cost Effectiveness*
- *Environmental & Social Justice Analysis.*

To see how the different information will be gathered within the individual studies – please reference the specific study.

[Engineering & Design Alternatives](#)

SoCalGas will evaluate engineering and pipeline design alternatives as part of its work in the *Preliminary Routing/Configuration Analysis* and *Pipeline Sizing and Design*. That analysis will be incorporated into this study.

Data developed as part of the Angeles Link Phase One *Production Planning & Assessment* and other studies conducted as part of the Market Assessment & Alternatives workstream, coupled

with the *Preliminary Routing / Configuration Analysis* and *Pipeline Sizing & Design Criteria* analysis, will inform review of a potential phased approach for implementation of Angeles Link.

- This approach will consider production capacity and demand availability at various points in time (e.g., 2030, 2035, 2040, 2045) and will identify the infrastructure required to meet those needs at that specific point in time.
- The analysis will also consider future scalability and appropriate pre-investment for future implementation.
- Next, options will be developed and evaluated for a clean renewable hydrogen pipeline system, considering factors such as sustainability, constructability, permitting, environmental considerations, equity, along with operability, maintenance and other factors.
- Lastly, options and alternatives to the pipeline system including hydrogen pipeline alternatives, such as a localized hub, and other alternatives, such as non-hydrogen alternatives and hydrogen delivery alternatives, will be developed and evaluated.

2) Other Alternatives

Non-Hydrogen Alternatives

SoCalGas will identify, build upon, and evaluate non-hydrogen alternatives (e.g., electrification, energy efficiency, renewable natural gas (RNG), natural gas with carbon management) across mobility, power, and industrial use cases. This will require the establishment of defined criteria and factors that could impact the viability of the alternative, such as:

- The ability for the alternative to meet specific end user requirements
- The propensity to adopt alternatives economically at scale
- The ability for the alternative to be implemented in a timely manner
- The technical feasibility to the extent this has not been determined in other studies.

Hydrogen Delivery Alternatives

SoCalGas will identify, build upon, and evaluate hydrogen delivery alternatives (e.g., trucking, in-basin hydrogen production) across mobility, power, and industrial end use cases. This will require the establishment of defined criteria and factors that could impact the viability of the assessed alternatives, such as:

- The ability for the alternative to meet specific end user requirements
- The propensity to adopt alternative delivery options economically at scale
- The ability for the alternative to be implemented in a timely manner
- The technical feasibility to the extent this has not been determined in other studies.

Note: Cost-effectiveness, which will aim to compare the cost-effectiveness and economic feasibility of clean renewable hydrogen delivery via the Project, pipeline alternatives, hydrogen

delivery alternatives and non-hydrogen alternatives across power, mobility, and industrial use cases, will be addressed in the *High-Level Economic Analysis & Cost Effectiveness* study.

The *Environmental Analysis* study will include a high-level desktop analysis of the potential environmental impacts of alternatives to the Project.

Demand Study

Overview

The Decision requires (OP 6 (a) and OP 6 (c)) SoCalGas to identify hydrogen demand, end uses, and end-users (including current natural gas customers and future customers) of the Project. This study will evaluate potential clean renewable hydrogen demand and assess adoption in the Mobility, Power Generation, and Industrial sectors.

Technical Approach

Technical Approach – Demand Model Methodology

Modeling for the demand study begins with assessment and prioritization of sub-sectors. This assessment takes into account historical fuel consumption and existing public data sets. Part of the technological feasibility is analyzed by gathering inputs from original equipment manufacturers (OEMs) where possible. These inputs then inform the actual modeling of demand. Modeling methodology includes:

- Modeling the total addressable market of hydrogen demand
- Applying zero-emission adoption rates
- Assessing the viability of clean renewable hydrogen against alternatives to estimate clean renewable hydrogen adoption rates.

The next step in the process is to validate and refine the preliminary model outputs. This done in part through PAG and CBOSG feedback and in part through interviews with market participants to help validate model assumptions and overall outputs including:

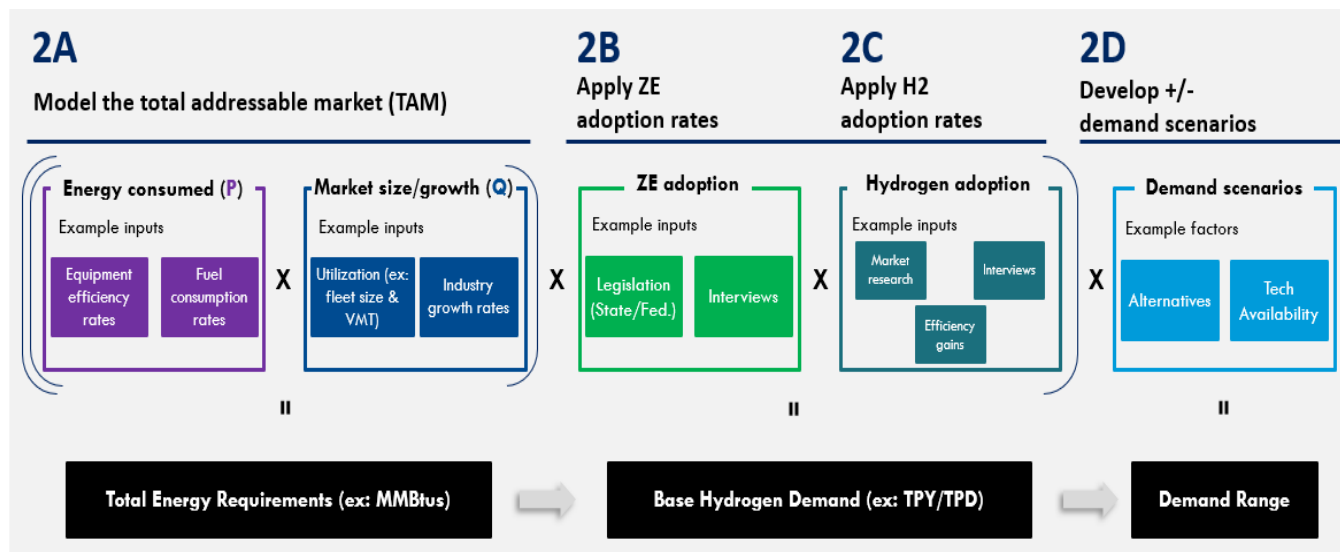
- Availability of clean renewable hydrogen technology
- Identification of potential end users including current and future natural gas customers
- Consideration of end-use viability
- Capital expenditure and operational expenditure costs.

Peer-reviews may also be conducted to help validate approach, assumptions, and preliminary outputs. Feedback from these interviews and interactions are incorporated into the model and *Demand Study* as appropriate.

Technical Approach – Demand Model Development Details

The graphic below illustrates demand modeling methodology and information flow in more detail.

- The approach begins with assessing the total addressable market of hydrogen demand, which involves determining energy consumption inputs such as equipment efficiency rates or fuel consumption rates and applying them to market inputs such as existing fleet sizes and industry growth rates.
- The next steps are to apply zero-emission adoption rates, which are informed by data such as existing regulations and legislation, and then determining estimated hydrogen adoption rates, which are informed by data such as market research, forecasted technology efficiency gains, and further market interviews.
- The final step in developing the model and developing different demand scenarios is to apply variables such as demand alternatives and technology availability.



Technical Approach - Demand Scenarios Details

In the development of potential demand forecasts, different scenarios may have assumptions (e.g., legislative and regulatory drivers) that will influence the calculated modeling output. This Study will focus on developing three scenarios: conservative, moderate, and ambitious, as detailed below for each of the primary sectors:

Description of Scenarios*

Conservative	Scenario assumes lower adoption rates for hydrogen across a limited set of use-cases within prioritized sectors and sub-sectors, primarily driven by existing legislation. Mobility: On-Road Vehicles – Heavy-Duty Vehicles (HDV),
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	<p>Medium-Duty Vehicles (MDV); Off-Road Vehicles – Cargo Handling Equipment (CHE), Ground Support Equipment (GSE), Agricultural (Ag), Construction & Mining (C&M), Commercial Harbor Craft (CHC), Ocean Going Vessels (OGV)**</p> <p>Power: Peaker, Baseload</p> <p>Industrials: Cogen***, Food & Bev, Metals, Stone, Glass, and Cement, Paper, Chemicals, Aerospace and Defense</p>
Moderate	<p>Scenario assumes increased hydrogen adoption across an expanded set of use-cases within prioritized sectors and sub-sectors, driven by existing legislation.</p> <p>Mobility: HDV, MDV, CHE, GSE, Ag, C&M, CHC, OGV**</p> <p>Power: Peaker, Baseload, Cogen</p> <p>Industrials: Cogen***, Food & Bev, Metals, Stone, Glass, Cement, Paper, Chemicals, Aerospace and Defense</p>
Ambitious	<p>Scenario assumes more ambitious policies are put in place and businesses are incentivized to support widespread hydrogen adoption within prioritized sectors and sub-sectors.</p> <p>Mobility: HDV, MDV, CHE, GSE, Ag, C&M, CHC, OGV**, Aviation</p> <p>Power: Peaker, Baseload, Cogen</p> <p>Industrial: Refineries, Cogen, Food & Bev, Metals, Stone, Glass, Cement, Paper, Chemicals, Aerospace and Defense</p>

*Base market growth rate approach and assumptions vary per sector and per scenario

**Diesel consumption only, not main engine heavy fuel

***Cogeneration in Conservative and Moderate scenarios excludes cogeneration plants at refineries

Technical Approach – Primary Factors Driving Adoption Rates

Estimating and forecasting hydrogen adoption rates for the Mobility, Power Generation, and Industrial sectors will be assessed primarily against four factors. These factors are Policy and Legislation, Technology Feasibility, Commercial Availability, and Business Readiness. Descriptions of these four factors are below:

1. Policy and Legislation – This factor considers if there is a legislative or policy mandate that would accelerate the transition to hydrogen. It also looks at any incentives that would drive adoption.
2. Technology Feasibility – This factor considers if hydrogen is technically and/or operationally feasible for adoption in that sector and includes comparisons against alternatives to hydrogen.
3. Commercial Availability – This factor considers if hydrogen enabled equipment is commercially available, the cost to own, and includes comparisons against alternatives to hydrogen.
4. Business Readiness – This factor considers the industry’s or sub-sector’s overall disposition or readiness for adoption of hydrogen technology.

Market Validation

The demand assumptions will be validated through interviews with potential end users, industry participants across the value chain, and key industry and subject matter advisors. Below is a summary of groups to be engaged and key objectives.

Group	Engagement Goals	Potential Sector Participants
Industry	<ul style="list-style-type: none">- Validate cost, equipment, and supply chain assumptions with sector experts- Confirm demand assumptions- Conduct interviews to understand technology availability, conversion costs and alternatives	Mobility Sector <ul style="list-style-type: none">- Ports & key tenants- Transit agencies- Fleet operators- Fuel station operators- Car and truck manufacturers- Cargo-handling equipment manufacturers Power Generation Sector <ul style="list-style-type: none">- Power generation operators- Gas Turbine, microgrid, and fuel-cell manufacturers Industrial Sector <ul style="list-style-type: none">- Steel- Cement- Food/Beverages- Refineries- Other industrial facilities- Industrial equipment manufacturers
Research & Academia	<ul style="list-style-type: none">- Engage technical experts to validate assumptions and integrate sub-sector deep dive knowledge	Potential sources: <ul style="list-style-type: none">- University of California- National Laboratories
Public Agencies & Consortiums	<ul style="list-style-type: none">- Compare findings against research published by public agencies- Engage agencies and consortiums	Potential sources: <ul style="list-style-type: none">- CARB- South Coast Air Quality Management District (SCAQMD)- Hydrogen Fuel Cell Partnership (H2FCP)- California Energy Commission (CEC)- Department of Energy (DOE)- PAG/CBOSG (including CPUC) feedback

Overview

The Decision requires SoCalGas to identify the potential sources of hydrogen generation for the Project (OP 6 (b)) and its plans to ensure the quality of the hydrogen gas meets the clean renewable hydrogen standards set in the Decision (OP 6 (j)). This study will evaluate potential sources of clean renewable hydrogen production from renewable energy resources such as solar and wind, input requirements, estimated cost of production, and policies, procedures, and other methods to meet clean renewable hydrogen standards.

Technical Approach

Following up on the Study Descriptions, the discussion below provides more detail on the work that is planned to be performed. The specific approach continues to evolve based on on-going feedback and discussion.

Technical Approach – Renewable Energy Technologies

The approach for assessing renewable energy technologies and costs will include the following steps:

- Potential generation technology resources that may be suitable to producing clean renewable hydrogen (as defined in the Decision) will be identified. These resources will include but may not be limited to solar, wind, hydroelectric, biomass, and geothermal.
- The feasibility and maturity of potential renewable technologies identified will be assessed for clean renewable hydrogen production.
- Technology operating characteristics will be developed for technologies deemed suitable to support Angeles Link hydrogen production. Operating characteristics and limitations, including representative manufacturers and sizing will be developed based on public sources.
- Storage technology operating characteristics and capabilities will be evaluated in the context of being able to move energy from intermittent renewable resources to meet operating requirements needed for hydrogen production.
- For suitable technologies, production estimates for intermittent resources will be developed using NREL's System Advisory Model.
- For renewable generation, technology costs will be developed using NREL's ATB data, and potentially other sources such as EIA. These sources are consistent with sources used for the CPUC 2022-2023 IRP. Costs by resource type will be included.

Technical Approach – Clean Renewable Hydrogen

The approach for assessing clean renewable hydrogen production technologies and costs will include the following steps:

- Potential hydrogen production resources that may be suitable to producing clean renewable hydrogen (as defined in the Decision) will be identified. These resources will include, but may not be limited to, different electrolyzer types (Alkaline, PEM, AEM, SOEC),

production of clean renewable hydrogen from biogas, and naturally occurring hydrogen. A general discussion will be included for each potential technology addressing the operating characteristics, potential benefits, safety, and technology readiness level (TRL).

- The technology assessment will focus on an evaluation of current technologies (mature and emerging) that are approaching a maturity point and potential state of availability during the Angeles Link Phase 1 planning horizon (through 2045) to help optimize production processes.
- The technologies will be compared on a qualitative basis evaluating key parameters including land usage, efficiency, scalability, and technology maturity
- Costs will be presented considering capital expenses, operating expenses, fuel, and tax credits. This will inform potential selections of technology with clear benefits relative to other technologies to use as the basis for Phase 1 study. Costs will be sourced from publicly available data where available. Where necessary, in-house data and data obtained from vendors will be used.

Technical Approach – Production Capacity Modeling

The approach to be used to develop the production capacity modeling, including the maximum available renewable capacity to serve hydrogen production, will include the following steps:

- Identify existing, planned, and potential renewable resources that will be expected to serve system electricity load per the CPUC 2022-2023 IRP.
- Use GIS tools to identify land available for hydrogen production development (exclude land required for existing or planned renewable generation).
- Assess and exclude, where feasible, areas with hard constraints (e.g., national parks, road/railroad easements).
- Develop maximum MW and MWh of renewable energy production potential available for future development to serve H₂ production. Land requirements by renewable technology will come from NREL renewable land requirement assumptions.
- Translate that maximum renewable energy production potential to a maximum H₂ production.
- To develop available hydrogen production capacity, the maximum renewable generation load curve will be used to determine the maximum hydrogen supply based on design parameters and inputs from other studies that may impact hydrogen production potential.

Technical Approach – Demand/Supply Balancing

The approach to be used to perform the analysis of demand/supply balancing and optimization will include the following steps:

- General: Utilize a spreadsheet model that will calculate hydrogen production and renewable power supply relative to demand
- Convert hydrogen demand needs into electricity needs to support hydrogen production.
- Develop renewable power hourly portfolio model with various resources.
- Develop the pro forma and financial assumptions to quantify development and operating costs for renewable technologies for each year over the life of renewable resources.

- Optimize portfolio capacity factor by evaluating renewable generation profiles relative to demand load factors.
- Size production to demand quantities and results from the *Demand Study*. Hydrogen production will initially be sized to demand (spread across various regions). The size of electrolyzers will be optimized with storage based on the demand shape, hydrogen production capability (ramping, cycling), and renewable portfolio generation profile (which will be shaped to the hydrogen demand as best as possible).
- Various durations of storage will be considered.
- Quantify curtailed energy from the portfolio.
- Renewable energy costs may need to be updated to adjust for substation and transmission line costs should the energy generation location be further from the hydrogen production facility than initially conceptualized.
- The process to determine the size of hydrogen electrolyzers, hydrogen storage, and renewable energy generation will be iterative in nature.

Technical Approach – Market Analysis for Renewable Energy

The approach to perform the market analysis for renewable energy will include the following steps:

- Develop geographical representation of renewable energy potential in the SoCalGas territory for solar and wind. Sources will include NREL and EIA.
- Develop listing of existing and planned renewable projects in territory considering publicly available information (e.g., CPUC 2022-2023 IRP, CAISO resources, WECC resources).
- Summarize existing, planned, and potential renewable energy buildouts by technology and provide insights on future renewable resource supply and costing.

Technical Approach – Market Analysis for Hydrogen Production

The approach to perform the market analysis for hydrogen production will include the following steps:

- Look at SCG hydrogen *Demand Study* and production estimates
- Identify potential supply constraints, or accelerators
- Research and quantify the plans of the leading electrolyzer manufacturers through 2045, including electrolyzer projects greater than 1 MW through 2045 with a focus on major countries
- Summarize the gap between planned electrolyzer projects and manufacturing in a spreadsheet and report
- Include focus in the SoCalGas region

Technical Approach – 3rd Party Evaluations

The approach to conduct 3rd party evaluations of the market analysis will include the following steps:

- Provide SoCalGas with a listing of potential 3rd parties.
- Setup interview dates
- Conduct interviews, logging questions and feedback.
- Evaluate interviewee feedback and determine if market analyses need to be modified.
- Update market analyses as appropriate.

Technical Approach – Meet/Exceed Clean Renewable Hydrogen Standard

The approach to identify procedures and methods to support hydrogen production to meet/exceed the Decision’s clean renewable hydrogen definition will include the following steps:

- Assess each system input and the system as a whole through the lens of a life-cycle analysis for adherence to the Decision’s clean renewable hydrogen definition, including achieving 4 kg-CO₂e/kg-H₂ on a lifecycle basic. These requirements will be incorporated into the analysis of the various hydrogen generation technologies. Therefore, any combined power generation and hydrogen production resulting in greater than 4 kg- CO₂e/kg-H₂ or that is otherwise inconsistent with the Decision’s clean renewable hydrogen definition will be noted and flagged as deficient.
- The completed production analysis will include the ability to generate hydrogen powered by sufficient renewable resources. If during different five-year increments, the system is incapable of generating sufficient hydrogen within the emissions threshold, the emissions associated with any remaining hydrogen will be noted.
- Report on options (e.g., power purchase agreements (PPA), virtual PPAs, renewable energy certificates (RECs)) to ensure all hydrogen received by the Angeles Link Pipeline is supplied by hydrogen the meets the Decisions’ clean renewable hydrogen definition.
- Report on current state of methods to verify hydrogen meets the Decisions’ clean renewable hydrogen definition. Consider countries with existing certification (e.g., Germany (renewable only), France (both renewable and low-carbon), and the UK (both renewable and low-carbon). For Phase 1 of Angeles Link, engage with entities on potential certification standards.

High-Level Economic Analysis & Cost Effectiveness

Overview

The Decision requires (OP 6 (d)) SoCalGas to evaluate the cost-effectiveness of the Project against alternatives and determine a methodology to measure cost effectiveness between alternatives. This study will determine a methodology to measure cost effectiveness that includes gathering cost estimates, performing an economic analysis to determine the potential levelized cost of clean renewable hydrogen to be delivered to end-users, and comparing the cost effectiveness of the Project against various project alternatives.

Technical Approach

- Utilize potential Angeles Link Project configurations (informed by other studies as needed, including *Production Planning & Assessment*, and *Preliminary Routing/Configuration*

Analysis) for analysis and identify critical assumptions for modeling alternative approaches.

- Utilize Class 5 cost estimates from other studies (*Production Planning & Assessment*, and *Preliminary Routing/Configuration Analysis*) to develop economics of the Angeles Link Project. Class 5 cost estimates will include capital expenditures for total installed costs as well as operation and capital maintenance expenses to operate the facilities thorough its useful life. The project economics will be based on a normalized timeframe taking into consideration the different useful lives for each of the value chain components for delivering hydrogen. The project economics will also include the evaluation of cost of capital in order to evaluate investment returns.
- Calculate the levelized cost of delivering hydrogen (including inputs from other studies as needed for production, transportation, compression, and storage) as a reasonable range in \$/kg for the Angeles Link Project. The levelized cost of delivering hydrogen will also take into consideration the different federal and state financial support mechanisms such as tax credits, LCFS, etc.
- Perform a cost effectiveness comparing the Angeles Link Project to hydrogen pipeline alternatives, such as the localized hub, and other alternatives, such as non-hydrogen alternatives (e.g., electrification) and hydrogen delivery alternatives (e.g. trucking), as described in *Project Options & Alternatives Study* above. Cost effectiveness comparison will include project costs and other costs related to emissions as informed by the studies in the Environmental workstream.

REGULATORY, POLICY & ENVIRONMENTAL WORKSTREAM TECHNICAL APPROACH

Water Resources Evaluation

Overview

The Decision requires (OP 6 (b)) SoCalGas to identify the potential sources of clean renewable hydrogen generation and water and estimate the costs of the hydrogen for the Project. This study will evaluate the availability of water resources for clean renewable hydrogen production in Central and Southern California regions.

Technical Approach

The *Water Resources Evaluation* study is broken up into six main tasks to evaluate the availability of water resources for clean renewable hydrogen production.¹ The tasks generally fall within two components of the Water Evaluation Study: (1) an evaluation of various types of water availability for clean renewable hydrogen production in Central and Southern California; and (2) an evaluation of the potential risks and opportunities associated with water availability that may impact the production of clean renewable hydrogen.

An overview of the approach taken for each key task of the *Water Resources Evaluation* study is provided below.

Water Resources Availability Analysis

Agency Outreach Task

The purpose of agency outreach is to validate approach and conclusions, as well as to facilitate development of further conclusions, to the extent possible, regarding water supply reliability. The approach for task is as follows:

- Create a list of key water agencies and managers that could support the production of clean renewable hydrogen that would be transported by the project, based on current and planned projects, and proximity to potential production areas.
- Develop global questions for all parties identified for outreach.
- Define communication protocols and develop responses for anticipated questions.
- Send initial outreach emails and schedule virtual meetings with respondents.
- Conduct virtual meetings with outreach contacts and collect information verbally regarding water supply availability or potential to develop water supply.
- Investigate suggestions made by outreach contacts regarding potential supply sources.

Water Resources Availability Task

This task will provide discussion of the baseline conditions for water resources, including identification of potential water supply sources and the management structure applicable to each, to provide context/baseline for the analysis of water feasibility for the proposed project. The approach for this task is as follows:

¹ The scope of the Water Study has been adjusted over time as the needs of the analysis have been refined.

- Identify any potential water sources that could support the production of clean renewable hydrogen that would be transported by the Project.
- Conduct research of specific water supply sources including recycled water, advanced water treatment concentrate, brine line flow, oil and gas industry water, surface water (i.e., exchange agreements), inland brackish groundwater, and dry weather flows. Water supply sources will include potential in-basin water sources.
- Review current (2020) Urban Water Management Plans (UWMPs) for water agencies responsible for management of the identified water supply sources.
- Consider input received from outreach contacts identified in Agency Outreach Task.
- Quantify potential supply availability for each source, to the extent of data availability.
- Identify sources suggested for consideration by water agencies and managers where there may be opportunities for mutual benefit (such as reuse of flows that are currently managed as waste or nuisance (ex., water quality treatment discharge, brine line flows, dry weather flows)).

Water Quality Requirements for Clean Renewable Hydrogen Production Task

The purpose of this task is to assess the minimum water quality requirements and efficiency of the electrolysis process and determine the total potential capacity of the electrolyzers that could be supported by the available water resources. This information will inform the Acquisition and Purification Cost Estimate Task of the *Water Resources Evaluation* study. The approach for this task is as follows:

- Collect water quality specifications for the electrolyzers that could be used to produce the clean renewable hydrogen that would be transported by the Project from vendors and conduct a desktop review to evaluate the efficiency of these systems.
- Assess the pretreatment requirements for potential water supply sources, including consideration of electrolyzer efficiencies.
- Establish water quality requirements of the electrolyzers based on electrolyzer type (e.g., alkaline, polymer electrolyte membrane or solid oxide).

Acquisition and Purification Cost Estimate Task

The purpose of this task is to provide a high-level engineering evaluation to identify treatment and supporting infrastructure needs (including conveyance options), identify collocated opportunities, and develop rough-order-of-magnitude (ROM) cost estimates. This task considers the findings of the *Water Resources Evaluation Task* and the *Water Quality Requirements for Clean Renewable Hydrogen Production Task*.

The approach for this task is as follows:

- Evaluate treatment process(es) for potential water sources identified in *Water Resources Evaluation Task*.
- Analyze the recovery of water through the treatment process and evaluate strategies for residual management and disposal.

- Estimate total water demand needed to meet the potential production target of clean renewable hydrogen production target that would be transported by the Project.
- Develop a preliminary conceptual sizing of treatment facilities.
- Calculate ROM cost estimates for required infrastructure using a proprietary cost estimation tool to develop the cost estimates and conceptual layouts for treatment facilities.
- Estimate life cycle costs of acquiring and producing water, based upon published information on water pricing.

Prioritization, Risk Identification, Risk Management Analysis

Risk and Opportunities Identification and Management Task

The purpose of this task is to identify potential risks and opportunities associated with access to water supply for the Project (including water rights and water quality) and develop strategies to manage potential risks. Approach for this task includes:

- Identify mitigation measures where possible to manage risks as feasible.
- Identify potential benefits to local communities by use of identified water sources.
- Evaluate the regulatory landscape to identify potential triggering events that could upset the water supply, such as drought regulations and regional supply issues.
- Develop a risk profile for issues that could interrupt water supply, how and when issues may occur, and how issues may affect supply reliability.

Water Option Prioritization Analysis Task

The purpose of this task is to prioritize options for water supply development based on goals, risk profile, opportunities, and benefits. The approach for this task is as follows:

- Use a proprietary analysis tool for quantitative evaluation.
- Develop criteria for prioritizing options for water supply based on findings from the Risk and Opportunities Identification and Management task and the prioritization criteria as primary inputs into a Multi-Objective Decision Analysis (MODA) tool to score and rank the options.
- Evaluate potential benefits through steps including: 1) Input parameters, 2) Confirm evaluation criteria, 3) Establish relative criteria weights, 4) Score options against criteria, 5) Calculate results, 6) Confirm results with sensitivity outputs.
- Prioritize potential water supply sources based on goals, risk profile, opportunities, and benefits.

Nitrogen Oxides (NOx) Emissions Assessment

Overview

The Decision requires (OP 6 (h)) SoCalGas to assess potential NOx emissions associated with the Project, including appropriate controls to mitigate emissions. The NOx assessment

will evaluate NOx and other air emissions associated with storage and transportation of hydrogen, as well as NOx emissions associated with end users. Key areas of focus will be on hard-to-electrify industrial sectors, the mobility sector, and power generation.

The objective of this study is to assess the potential for both nitrogen oxides (NOx) emissions increases and reductions associated with the Angeles Link Project and to identify potential NOx mitigation measures to reduce potential NOx emissions. Although NOx will be the primary focus of this emissions assessment, the study will also include a high-level assessment of other potential emissions with a focus on volatile organic carbon (VOC) which is the other precursor to ozone and particulate matter (PM) which is the primary pollutant associated with diesel combustion.

Background

Study Approach

The study will estimate NOx associated with the anticipated storage and transportation of hydrogen and estimate NOx emissions from end users (mobility, power generation, and hard to electrify industrial sectors). Additionally, potential NOx mitigation measures will be identified to control NOx emissions. Where applicable, the study will rely on specific technical information (about facilities, equipment, processes, throughputs, etc.) that is available including, from the demand study and other ongoing Phase One feasibility studies, regulatory (including the SCA) and transportation agencies, and other available information and studies. If specific information is not available, estimates based on availability of related data or documented assumptions will be developed. The study will also include a high-level assessment of other potential emissions.

Technical Research

The study will collect, review, and analyze technical research studies and information related to NOx emissions associated with the combustion of hydrogen. This analysis will include:

- Available literature and studies from research-based academic institutions such as the University of California Irvine (UCI) Combustion Laboratory and the Georgia Institute of Technology and private organizations such as the Electric Power Research Institute (EPRI)
- Existing, proposed, and potential future regulatory requirements from federal agencies including the United States Environmental Protection Agency (US EPA), the United States Department of Energy (US DOE), state agencies such as the California Air Resources Board (CARB) and the California Energy Commission (CEC), and local agencies including the nine local air districts located within the geographic scope of this study such as South Coast Air Quality Management District (AQMD) and San Joaquin Valley Air Pollution Control District (APCD)
- Technological developments and timelines from manufacturers working on hydrogen technology

- Presentations and data releases from government agencies and laboratories including the US DOE and the National Renewable Energy Lab (NREL); and potential NOx emissions mitigation measures from technological advancements.

The study will research available literature and studies to evaluate:

- How NOx is formed from the combustion of hydrogen
- How NOx might be controlled when combusting hydrogen
- How to quantify the formation of NOx from the combustion of hydrogen.

Preliminary information reviewed regarding the formation of NOx indicates:

- NOx may be formed via three pathways during combustion: thermal NOx, fuel NOx, and prompt NOx.
- Valuable information regarding the formation of NOx is available from publications by the US EPA and other regulatory agencies, academia and research institutions.
- Control of NOx emissions from the combustion of hydrogen begins with designing equipment to account for the unique properties of hydrogen, as outlined in many studies and reports, including government publications by the US EPA and the US DOE.
- Aftertreatment such as three-way catalysts, selective catalytic reduction, and lean NOx traps will also be analyzed.

Research conducted by entities such as academic institutions will be evaluated to determine the best available methods for quantifying emissions of NOx from the combustion of hydrogen fuels. EPA and other regulatory data will be evaluated for potential NOx emission factors related to hydrogen fuels, and relevant regulatory data regarding NOx emission limitations for combustion units.

[Review of Other Information and Data](#)

There are parallel Angeles Link Phase One studies that will provide further details and scenario options needed to complete this study. These include the *Production Planning & Assessment*, *Preliminary Routing/Configuration Analysis*, and the *Demand Study*.

Technical Approach

The following assessment process (Figure 1) will be used for this technical approach. The approach will be based on review of technical research studies, research of anticipated technological advancements, and review of expected evolution of regulatory frameworks.

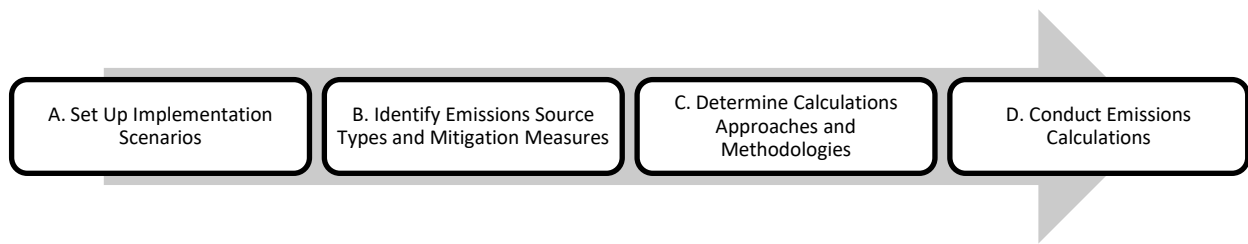


Figure 1. NOx emissions assessment process for the Angeles Link Project.

Set Up Implementation Scenarios

To evaluate NOx emissions and emissions changes associated with Angeles Link, the baseline scenario will be compared to the Project scenario. The Project scenario will include the timeframe from 2030 to 2045. The end use sectors are anticipated to achieve the ability to accommodate 100% hydrogen fuel use at different times due to the availability of technology and the feasibility of transitioning existing equipment and building new infrastructure. The use of hydrogen as fuel for each end-use sector will be evaluated beginning with 2030 based on the details obtained from the parallel studies. NOx emissions will be calculated using the approaches described in the next steps.

Identify Emissions Source Types and Mitigation Options

The study will evaluate NOx and other emissions potentially associated with the following by developing emission calculation approaches and methodologies:

- Production
- Transmission and Storage
- Hard to Electrify Industrial End Users, Mobility (focused on heavy-duty trucks), and Power Generation (initial focus on existing power plants))

NOx emissions are a result of combustion of fuel. NOx is created from the conversion of nitrogen in fuel and ambient air at elevated temperatures resultant from combustion. For each topic identified above, the study will:

- Identify potential NOx mitigation measures for existing, emerging/new, and alternate equipment.
- Use a top-down evaluation to prioritize and rank the measures identified for each.

Evaluation of NOx emission mitigation options will be focused on technologies that minimize combustion temperatures and post-combustion NOx emission control technology such as catalytic reduction.

Hydrogen Production

Two potential clean renewable hydrogen production options will be analyzed. The first is the production of clean renewable hydrogen using the process of electrolysis which uses electricity to split water molecules into oxygen and hydrogen.

- The electrolyzers will be powered by renewable electricity.
- No combustion sources are anticipated and therefore, there is no potential for NOx emissions associated with electrolyzers.

The second potential clean renewable hydrogen production option includes bio gasification and biogas fueled steam methane reformers.

- Steam methane reforming is a process in which the biogas reacts with steam in the presence of a catalyst to produce hydrogen and carbon dioxide.
- This option is anticipated to have the potential for NOx emissions and those potential emissions will be evaluated in this study.

Hydrogen Transmission and Storage

For the purpose of this study, hydrogen will be transmitted using pipeline to end users. Transmission and storage of hydrogen will require the use of compressors.

- Compressors are assumed to be driven by 100% hydrogen fueled turbines or internal combustion engines, or grid electricity powered motors.
- If the compressor drivers are electric motors, there will be no potential for NOx emissions to occur on site.
- If the compressor drivers are turbines or engines, they will be fueled by 100% hydrogen and there is the potential for NOx emissions.
- For grid electricity interruptions, hydrogen-fueled back-up generators may also be used, which would also have the potential for NOx emissions.

Hydrogen Industrial End Users

Potential NOx emissions source types from end users in three key sectors are being evaluated: Power Generation, Mobility, and Hard to Electrify Industrial sectors. Information obtained from the parallel *Demand Study* will help inform the analysis of end uses in each of these three sectors, as well as their respective subsectors.

- Power generation units such as turbines are the primary source for potential NOx emissions in the first sector.
- Source types with the potential for NOx emissions in the Mobility Sector include heavy-duty trucks, port vehicles/cargo handling equipment, marine vessels, and airplanes.
- Hard to electrify industrial subsectors include energy intensive industries such as refining; food and beverage manufacturing; primary and fabricated metals; stone, clay, and glass (including cement); chemical manufacturing; wood and paper; petroleum products; mining; ammonia production; industrial launderers; co-generation; and textile manufacturing.
- Source types with the potential for NOx emissions in the three sectors include, but are not limited to, hot water boilers, steam generating units, process heaters, furnaces/kilns, internal combustion engines, turbines, and miscellaneous combustion equipment.
- The parallel *Demand Study* will define the anticipated use of hydrogen.

Determine Calculations Approaches and Methodologies

For each emission source type identified, calculations to estimate emissions and mitigation of emissions will be prepared.

- Studies may identify calculation approaches for a particular source type based on emission factors, stoichiometric calculations, testing data, continuous emissions monitoring systems, or other approaches based on types of datasets that may be available.
- For the selected calculation approach, the calculation method including the equations, constant and variable data, and configuration information to conduct the calculations will be determined.
- Potential NO_x emissions and mitigations will be assessed for each of the emissions source types identified in the section above.
- NO_x emissions will be calculated at the unit level and scaled based on activity data quantified using information from the parallel studies identified above.
- Calculations will be prepared for the conservative, moderate, and ambitious scenarios evaluated in the parallel *Demand Study*.

Key Considerations

- Availability of consistent, useable data across the geographies and impacted sectors;
- Methods for projecting the change in demands for equipment and source types; and
- A repeatable process that can be applied for different scenarios.

Preliminary Calculation Methodology

The study will evaluate potential for NO_x emissions based on the type of equipment and specific source categories. Identification of potential opportunities to minimize and mitigate NO_x will also be evaluated. Unit level estimates will be scaled to determine NO_x emissions related to the Project.

Assumptions

- Regardless of combustion characteristics associated with hydrogen combustion, the California regulatory environment is anticipated to not allow increases in NO_x emissions.
- Simplified repeatable calculation techniques using representative emission factors and activity data (leveraging emission inventory technique) are required to quantify combustion NO_x emissions across the universe for equipment categories and source types.

Conduct Emissions Calculations

The study will prepare emission calculations using the emission factors and activity data compiled for each of the topic areas.

- The tool will be designed to conduct calculations at the unit level (per unit equipment count, unit distance, unit throughput, or other unit parameters, as applicable).
- The emissions calculation tool will scale from unit level information to estimate impacts across the geographic region that Angeles Link spans.
- Emission calculations will utilize information from evaluated research, the *Demand Study*, and other Phase One feasibility studies.

Hydrogen Leakage Assessment

Overview

The Decision directs (OP 6 (g)) SoCalGas to assess the risks and mitigations for hydrogen leakage. During Phase One, an evaluation of potential hydrogen leakage associated with production, storage, and transportation of clean renewable hydrogen will be prepared. Identification and evaluation of potential mitigation measures will also be included.

The objective of this study is to assess potential leakage of hydrogen associated with Angeles Link and to identify mitigation measures to reduce the potential leakage. This scope includes a desktop study of potential clean renewable hydrogen leakage associated with hydrogen production/transportation/storage. Anticipated sources include, but are not limited to, electrolyzers, pipeline venting, compressor venting, compressor rod packing, components (i.e., valves, flanges, connections, etc.), above ground tanks, and underground reservoirs.

Background

Study Approach

The study will evaluate potential sources of hydrogen leakage associated with the production and storage/transportation of hydrogen associated with Angeles Link. Where applicable, the study will rely on specific technical information that is available including, from other ongoing Phase One feasibility studies and other available information and studies. If specific information is not available, estimates based on availability of related data or documented assumptions will be developed. Hydrogen leakage can include intentional or unintentional releases. For example, rod packing, degassing, blowdowns on compression equipment, pipelines, vessels etc. are designed to release to support maintenance activities, manage safety risks, and address emergency events. This evaluation will include both intentional and unintentional releases.

Technical Research

The study will collect, review, and analyze technical research studies and information related to the potential for hydrogen leakage and opportunities to minimize and mitigate leaks of hydrogen. This analysis includes:

- Studies from research-based academic institutions such as Columbia University and the University of Wyoming and private organizations such as the Frazer-Nash Consultancy
- Existing, proposed, and potential future regulatory requirements from federal agencies including the United States Environmental Protection Agency (US EPA), the Pipeline and Hazardous Materials Safety Administration (PHMSA), the United States Department of Energy (US DOE), state agencies such as the California Air Resources Board (CARB) and the California Energy Commission (CEC), and local agencies including each of the nine local air districts located within the geographic scope of this study such as South Coast Air Quality Management District (South Coast AQMD) and San Joaquin Valley Air Pollution Control District (San Joaquin Valley APCD)
- Technological developments and timelines from manufacturers working on hydrogen technology
- Presentations and data releases from government agencies and laboratories including the US DOE and the National Renewable Energy Lab (NREL)
- Potential mitigation measures from technological advancements.

The resources specified by stakeholders in the feedback will be included such as the literature identified by Environmental Defense Fund (EDF) in their July 31, 2023, letter.

Review of Other Information and Data

There are parallel Angeles Link Phase One studies that will provide details to further inform this study. These include the *Production Planning & Assessment, Preliminary Routing/Configuration Analysis*, and Storage Studies (Underground Storage and Aboveground Storage).

Technical Approach

The following technical approach (Figure 1) will be used for this assessment based on review of existing technical research studies, research of anticipated technological advancements, and review of expected evolution of regulatory frameworks.

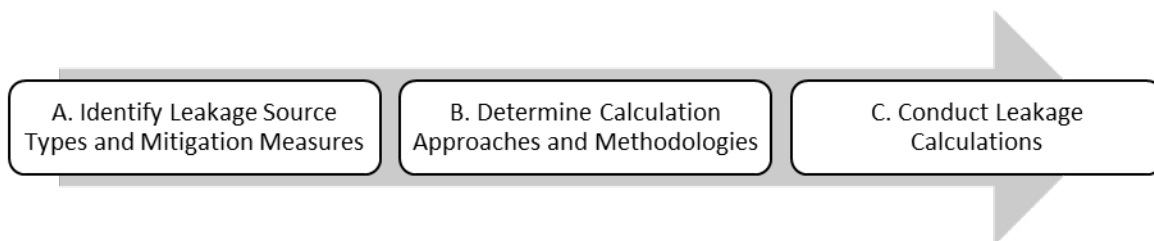


Figure 1. Hydrogen Leakage assessment process for the Angeles Link Project.

Identify Leakage Source Types and Mitigation Options

The study will complete an evaluation of potential leakage and opportunities to minimize and mitigate leakage associated with the following:

- Production

- Transmission and Storage

For each potential source of leakage identified above, potential mitigation measures for existing, emerging/new, and alternate equipment including available sensors and leak detection methodologies will be identified. A top-down evaluation to prioritize and rank the measures identified for each source type will be used.

Hydrogen Production

Two potential hydrogen production options will be analyzed. The first is the production of clean renewable hydrogen produced using the process of electrolysis, which uses electricity to split water molecules into oxygen and hydrogen.

- The electrolyzers will be powered by renewable electricity.

The second potential clean renewable hydrogen production option includes bio gasification and biogas fueled steam methane reformers.

- Steam methane reforming is a process in which the biogas reacts with steam in the presence of a catalyst to produce hydrogen and carbon dioxide.

Leakage may occur from electrolyzers and steam methane reformers:

- During purging, bleeding, or the process of removal of impurities.
- Through piping components such as valves or connections.
- Leakage of hydrogen through the casing of the electrolyzer and steam methane reformer is assumed to be negligible and could be mitigated through laminated gaskets and welded joints.

Hydrogen Transmission and Storage

Hydrogen is anticipated to be transmitted via pipelines to end users.

- The transmission and storage of hydrogen will require the use of compressors, where the seals/packing vents have the potential to release hydrogen.
- Also, blowdowns, purging, and other venting processes may result in hydrogen releases.
- Potential leaks may occur from pipelines components, including valves and connectors, and equipment handling hydrogen.

Information from the parallel Angeles Link Phase One studies including the preliminary routing and configuration analysis would be used to quantify the potential for leakage, if available.

Determine Calculations Approaches and Methodologies

For each source type identified in the above task, the study will identify potential calculation approaches for leakage. Based on a review of available studies and preliminary data, the study will outline the options for calculation approaches and evaluate the options to determine the best calculation approach for each source. Criteria for evaluation may include accuracy, availability of data, scalability of leakage calculations, probabilistic analysis, etc.

For the selected calculation approach, the calculation method including the equations, constant and variable data, and configuration information that would be needed to conduct the calculations will be determined.

- Calculation methods will be scalable such that changes to anticipated equipment counts, pipeline lengths, and mitigations could be easily incorporated into calculations.
- Potential leakage will be assessed for each of the topics identified in the section above.
- Potential leakage will be estimated at the unit level and scaled based on data from the parallel studies identified above.

Key Considerations

Codes, regulations, and standards applicable to hydrogen value chain systems and equipment provide guidance for the design, construction, and operation of systems to minimize leakage.

Preliminary Calculation Methodology

The study will evaluate potential for hydrogen leakage for the anticipated types of equipment such as electrolyzer, compressor, pressure vessels, and pipelines, and will also include:

- Valves, flanges, connections, etc.
- Design, procurement, installation, operational, and maintenance considerations.
- Identification of areas susceptible to leakage and potential opportunities to minimize and mitigate leakage.
- The identification of emerging monitoring technologies.

Conduct Leakage Calculations

The study will develop a calculation tool and include each potential source of leakage.

- The tool will be built for scalability to accommodate changes in equipment/component counts, lengths of pipelines, compression needs, storage requirements, throughputs, and configurations.
- The calculation tool will be tested for accuracy and ease of use.
- The emissions calculation tool will scale from unit level information to estimate impacts across the geographic region that Angeles Link spans.
- Estimates will include information from evaluated research, the *Demand Study*, and other Phase One feasibility studies, as applicable.

Overview

The Decision directs (OP 6 (n)) SoCalGas to provide the findings from Phase One feasibility studies demonstrating compliance with environmental laws and public policies. To support environmental laws and public policies, SoCalGas will conduct an initial evaluation of greenhouse gas (GHG) emissions increases and decreases from end users associated with the Project. This assessment will evaluate GHG emissions associated with compressors for storage and transportation of hydrogen, as well as GHG emissions associated with end users. Key areas of focus will be on the Mobility, Power Generation, and Hard to Electrify Industrial sectors.

This scope includes a study of GHG emissions associated with fuel use by compressors and by end users in the Mobility, Power Generation, and Hard to Electrify Industrial sectors. The objective of this study is to assess the potential for both GHG increases and reductions resulting from Angeles Link and to identify mitigation measures to reduce potential GHG emissions.

Background

[Study Approach](#)

The study will estimate GHG emissions associated with the anticipated storage and transportation of hydrogen and estimate potential GHG emissions and GHG emissions reductions from end users of clean renewable hydrogen (Mobility, Power Generation, and Hard to Electrify Industrial sectors). Additionally, potential GHG minimization and mitigation measures will be identified to control GHG emissions. Where applicable, specific technical information (about facilities, equipment, processes, throughputs, rates, costs etc.) that is available from the *Demand Study* and other parallel Phase One studies, regulatory agencies, or other studies will be used. If specific information is not available, general information available from the same sources will be used. If general information is not available, estimates based on availability of related data or documented assumptions will be developed.

- US EPA's Greenhouse Gas Reporting Program (GHGRP) and California Air Resources Board's (CARB's) GHG Mandatory Reporting Regulation (MRR) define "greenhouse gas" as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and other fluorinated greenhouse gases. For reporting and inventory comparisons, hydrogen itself is not considered a GHG by CARB, US EPA, or the International Panel for Climate Change (IPCC) at this time. For this study, two types of GHG emissions will be assessed: Direct and Indirect.

- CO₂, CH₄, and N₂O emissions are direct GHGs that are released during the combustion of fossil fuels such as natural gas, diesel, gasoline, jet fuel, etc. The potential for some end users to combust blended hydrogen with natural gas may occur prior to some end users being able to combust 100% hydrogen. Therefore, direct GHG emissions that may potentially occur from these types of activities are being evaluated. Combustion of 100% hydrogen is not expected to release significant GHGs. The study will also evaluate GHG emissions reductions obtained from switching from 100% fossil fuels such as natural gas, diesel, gasoline, jet fuel, etc. to hydrogen.

Technical Research

The study will collect, review, and analyze technical research studies and information related to GHG emissions associated with the combustion of hydrogen. This analysis includes:

- Studies from research-based academic institutions such as the UCI Combustion Laboratory and the Georgia Institute of Technology and private organization such as the Electric Power Research Institute
- Existing, proposed, and potential future regulatory requirements from federal agencies including the United States Environmental Protection Agency (US EPA), the Pipeline and Hazardous Materials Safety Administration (PHMSA), the United States Department of Energy (US DOE), state agencies such as the California Air Resources Board (CARB) and the California Energy Commission, and local agencies including each of the nine local air districts located within the geographic scope of this study
- Technological developments and timelines from manufacturers working on hydrogen technology;
- Presentations and data releases from government agencies and laboratories including the US DOE and the National Renewable Energy Lab (NREL)
- Potential mitigation and minimization measures from technological advancements.

Review of Other Information and Data

There are parallel Angeles Link Phase One studies that will provide details needed to complete this study. These include the *Production Planning & Assessment*, *Preliminary Routing/Configuration Analysis*, and the *Demand Study*.

Technical Approach

The following technical approach (Figure 1) will be used for this assessment based on review of technical research studies, research of anticipated technological advancements, and review of expected evolution of regulatory frameworks.

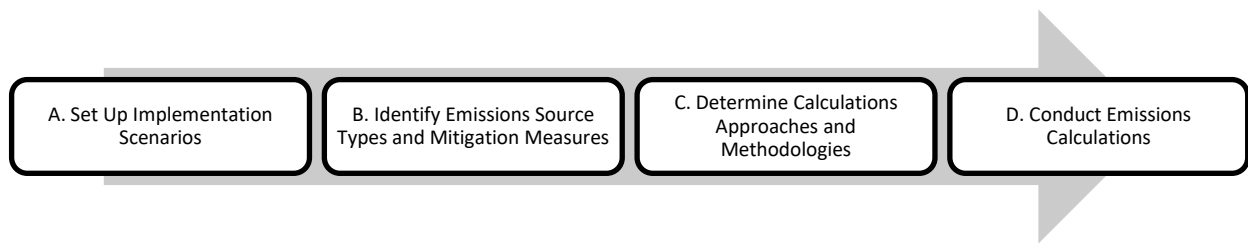


Figure 1. GHG emissions assessment process for the Angeles Link Project.

Set Up Implementation Scenarios

To evaluate GHG emissions and emissions changes associated with Angeles Link, the baseline scenario will be compared to the Project scenario. The Project scenario will include the timeframe from 2030 to 2045. The end use sectors are anticipated to achieve the ability to accommodate 100% hydrogen fuel use at different times due to availability of technology and feasibility of transitioning existing equipment. The use of clean renewable hydrogen as fuel for each end-use sector will be evaluated beginning with 2030 based on the details obtained from the parallel studies. GHG emissions will be calculated using the approaches described in the next steps.

Identify Emissions Source Type and Mitigation Options

The study will evaluate direct and/or indirect GHG potentially associated with the following by developing emission calculation approaches and methodologies:

- Production
- Transmission and Storage
- Hard to Electrify Industrial End Users, Mobility (focused on heavy-duty trucks), and Power Generation (initial focus on existing power plants)

For each topic identified above, potential GHG mitigation measures for existing, emerging/new, and alternate equipment will be identified. A top-down evaluation to prioritize and rank the measures identified for each will be used.

Hydrogen Production

Two potential hydrogen production options will be analyzed. The first is the production of clean renewable hydrogen using the process of electrolysis which uses electricity to split water molecules into oxygen and hydrogen.

- The electrolyzers will be powered by renewable electricity.
- No combustion sources are anticipated and therefore, there is no potential for GHG emissions associated with electrolyzers.

The second potential clean renewable hydrogen production option includes bio gasification and bio gas fueled steam methane reformers.

- Steam methane reforming is a process in which the biogas reacts with steam in the presence of a catalyst to produce hydrogen and carbon dioxide.

- This option is anticipated to have the potential for GHG emissions and those will be evaluated in this study.

Hydrogen Transmission and Storage

Transmission and storage of hydrogen will require the use of compressors.

- Compressors are assumed to be driven by 100% hydrogen fueled turbines or internal combustion engines or grid electricity powered motors.
- If the compressor drivers are electric motors, there is the potential for indirect GHG emissions if the source of electricity is not renewable.
- If the compressor drivers are turbines or engines, they are assumed to be fueled by blended hydrogen or 100% hydrogen and there is the potential for direct GHG emissions.
- For grid electricity interruptions, hydrogen-fueled back-up generators may also be used, leading to the potential for direct GHG emissions.

Hydrogen End Users

Current GHG emissions source types that may convert from fossil fuels to hydrogen are being evaluated in three key areas: Power Generation, Mobility, and Hard to Electrify Sectors. Information obtained from the parallel *Demand Study* will help inform the analysis of end uses in these three sectors, as well as their respective subsectors.

- Power generation units such as turbines are the primary source for current GHG emissions in the first sector.
- Source types with the current GHG emissions in the Mobility Sector include heavy-duty trucks, port vehicles/cargo handling equipment, marine vessels, and airplanes.
- Hard to electrify industrial subsectors include energy intensive industries such as refining; food and beverage manufacturing; primary and fabricated metals; stone, clay, and glass (including cement); chemical manufacturing; wood and paper; petroleum products; mining; ammonia production; industrial launderers; co-generation; and textile manufacturing.
- Source types with the current for GHG emissions in the three sectors include, but are not limited to, hot water boilers, steam generating units, process heaters, furnaces/kilns, internal combustion engines, turbines, and miscellaneous combustion equipment.
- The parallel *Demand Study* will define the anticipated use of hydrogen.

Determine Calculations Approaches and Methodologies

For each emission source type identified, the study will prepare calculations to estimate emissions and mitigation of emissions.

- Studies may identify calculation approaches for a particular source type based on emission factors, stoichiometric calculations, testing data, or other approaches based on types of datasets that may be available.

- For the selected calculation approach, the calculation method including the equations, constant and variable data, and configuration information to conduct the calculations will be determined.
- Potential emissions and mitigations will be assessed for each of the emissions source types identified section above.
- GHG emissions will be calculated at the unit level and scaled based on activity data quantified using information from the parallel studies identified above.
- Calculations will be prepared for the conservative, moderate, and ambitious scenarios evaluated in the parallel *Demand Study*.

Key Considerations

- Availability of consistent, useable data across the geographies and impacted sectors;
- Methods for projecting the change in demands for equipment and source types; and
- A repeatable process that can be applied for different scenarios.

Preliminary Calculation Methodology

The study will evaluate direct GHG emissions from combustion of fossil fuels and fuel blends based on the type of equipment.

- Indirect GHG emissions from grid electricity usage will be estimated using the grid emission factors such as those from US EPA’s “The Emissions & Generation Resource Integrated Database” (eGRID).
- Identification of potential opportunities to minimize and mitigate GHG will also be evaluated.
- Unit level estimates will be scaled to determine GHG emissions related to Angeles Link.

Assumptions

Clean renewable hydrogen will be used as fuel for reciprocating internal combustion engines and/or turbines powering storage and transmission compressors; or grid electricity will be used for electric motor compressors.

Conduct Emissions Calculations

The study will prepare emission calculations using the emission factors and activity data compiled for each of the topic areas.

- The tool will be designed to conduct calculations at the unit level (per unit equipment count, unit distance, unit throughput, or other unit parameters, as applicable).
- The emissions calculation tool will scale from unit level information to estimate impacts across the geographic region that Angeles Link spans.
- Estimates will include information from evaluated research. The *Demand Study*, and other Phase One feasibility studies, as applicable.

Overview

The Decision directs (OP 6 (n)) SoCalGas to provide the findings from Phase One feasibility studies demonstrating compliance with environmental law and public policies. Further, the Decision directs SoCalGas to address and mitigate impacts to disadvantaged communities and other environmental justice concerns (OP 6 (l)). SoCalGas will conduct an initial evaluation of a clean renewable hydrogen transportation system's compliance with environmental law and public policies, which will include an assessment of environmental impacts of project alternatives, environmental justice concerns and impacts to disadvantaged communities.

Technical Approach²

Overview

SoCalGas will conduct a high-level desktop environmental analysis of the Project, including analysis of transportation pipelines and appurtenance facilities, to make an initial assessment of compliance with environmental law and public policies. The high-level desktop analysis will also include an initial assessment of potential environmental impacts of project alternatives, environmental justice concerns, and impacts to disadvantaged communities. The high-level desktop analysis will also review potential environmental impacts in key resource areas related to potential third-party production facilities and potential storage facilities that may support the Project. Given that the Project consists of clean renewable hydrogen transportation system and that third parties will likely construct and operate the potential production and storage facilities, analysis of potential environmental impacts related to the production and storage facilities will be conducted at a very high level during this Phase One analysis.

The environmental analysis of the Project could focus on these resources areas—air quality/greenhouse gas emissions, biological resources, cultural and tribal resources, energy, hazards and hazardous materials, hydrology and water quality, and land use and planning, —that are described in the following sections. In general, the desktop environmental analysis will be performed using geographic information system (GIS) data and review of aerial imagery. Research of online databases will also be conducted to obtain relevant information and aid in the analysis. The following steps will be taken for each resource area to conduct the analysis.

First, SoCalGas will collect all available public data including, but not limited to, landownership, conservation areas, vegetation communities, species data, wetland and waters information, known hazards sites, and soils and geological hazards data. In addition, SoCalGas will evaluate whether data from other SoCalGas projects in Southern and Central California is available for use and determine if any past projects overlap; if so, they will be added to the GIS library that is developed for the analysis and used by planners and Subject Matter Experts (SMEs) to evaluate potential impacts from the Project.

Once the GIS library has been compiled, planners and SMEs will review the data and assess the

² This technical approach document does not include the High-Level Feasibility Assessment and Permitting Analysis because it is a screening analysis that has already been described in the work descriptions document.

types of resources that intersect with potential facilities, including the pipelines and appurtenances (e.g., compressor stations), third-party production facilities, and third-party storage facilities. Each resource area analysis (e.g., biological resources, cultural resources, noise) requires a different approach and will involve some level of GIS review, aerial photography review, and consideration of local and municipal regulations.

In order to evaluate the pipeline routes, potential routes have been broken into study areas ranging from 31 miles to 358 miles and made up of different segments corresponding to the *Preliminary Routing/Configuration Analysis*. Potential environmental impacts of the selected alternatives carried forward for further review will also be evaluated at a high desktop level.

Methodology specific to each resource area, including anticipated data sources, is described in the sections that follow.

Air Quality/Greenhouse Gas (GHG) Emissions

Based on the *Preliminary Routing/Configuration Analysis* work study, an initial, high-level analysis will be made to determine:

- If the proposed Project will potentially conflict with or obstruct implementation of the applicable air quality plan, result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard or expose sensitive receptors to substantial pollutant concentrations.
- Additionally, for GHG emissions, the analysis will determine if the Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Biological Resources

SoCalGas will use existing, publicly available GIS data to identify or estimate the biological resources crossed by the Project, including flora, fauna, and critical habitat. Sources of data include:

- The National Wetland Inventory (NWI) from the U.S. Department of Fish and Wildlife (USFWS)
- California Natural Diversity Database from the California Department of Fish and Wildlife (CDFW)
- Critical Habitat data from CDFW, USFWS, and the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS)
- Vegetation Classification and Mapping Program and other data sets as necessary (e.g., U.S. Forest Service Calveg system, Bureau of Land Management Desert Renewable Energy Conservation Plan, or the California Department of Forestry and Fire Protection Fire and Resource Assessment Program) information on land cover and natural vegetation communities

- USFWS Information for Planning and Consultation; NMFS Essential Fish Habitat
- USFWS Habitat Conservation Plan Areas
- And other data as appropriate.

This analysis may also include additional detailed analysis within areas identified in the High-Level Feasibility Assessment & Permitting Analysis.

A 100-foot-wide corridor will be evaluated for the pipeline routes; however, impacts to biological resources will not be evaluated as part of this desktop study where the pipeline is within paved roadways.

- Otherwise, documented locations of federally and state-listed threatened or endangered species within 0.25 mile of Project components will be tabulated and plotted on maps for analysis. Similarly, critical habitat, riparian habitat, and wetland areas will be identified where data exists.
- An initial assessment will be made regarding the number of square feet or acres of sensitive habitat (i.e., critical habitat, riparian habitat, wetland, wildlife corridors, nursery sites, or habitats identified in conservation plans) that overlap the Project, as well as a list of threatened, endangered, or fully protected species that have been previously documented within 0.25 mile of Project components.
- Candidate species, species of special concern, and rare plants will not be included in the Phase One analysis but may be considered in a later phase when more design details for the Project are available.

This data will be tabulated and shown on maps as appropriate. An initial assessment will be made on whether measures are available to reduce or avoid impacts if any are identified.

Cultural and Tribal Resources

SoCalGas' cultural resources consultant will use the California Historical Resources Information System to identify any known cultural resources that are recommended or determined eligible for the California Register of Historical Resources or the National Register of Historic Places. Resources listed as being locally significant will be researched as well. Records will be collected with 0.5 mile of the Project components; however, potential impacts will be analyzed within the area around facility boundaries for the desktop analysis. A summary of the resources and an analysis of whether mitigation measures are available to reduce or avoid impacts will be discussed.

Energy

Based on the *Preliminary Routing/Configuration Analysis* work study, an initial assessment will be made to determine if the Project could result in wasteful, inefficient, or unnecessary consumption of energy resources during the construction or operation phases, as well as identify conflicts with state or local plans for renewable energy or energy efficiency. This high-level analysis will be limited to the clean renewable energy system and will not evaluate individual equipment or materials used to construct or operate the transportation system.

Hazards and Hazardous Materials

For Phase One, the hazards and hazardous materials section will focus on obtaining known hazardous materials sites from the California State Water Resources Control Board through use of its GeoTracker database.

- Cleanup fund sites and other contaminated sites will be tabulated and analyzed as they relate to the pipeline and appurtenant facilities.
- In addition, an initial assessment will be made to determine hazardous substances that could be used during construction and operation.

Hydrology and Water Quality

Existing, publicly available GIS data on hydrology and water quality will be overlain with the pipeline corridor and facility footprint to determine where the pipeline crosses named and unnamed surface waterways and groundwater basins.

- Sources of data for this analysis include the National Hydrography Dataset from USGS, the NWI data from USFWS, Department of Water Resources groundwater data, and Federal Emergency Management Agency Flood Insurance Rate Maps.
- An initial assessment will be made on whether measures are available to reduce or avoid impacts, if any are identified.

Land Use and Planning

The resource area will build off the results of the High-Level Feasibility Assessment & Permitting Analysis, which may identify key areas that need further land use and planning analysis as part of this study.

- This analysis will not be done at the individual parcel level; it will assess major land use categories within the counties or cities that occur along the pipeline routes and appurtenant facilities.
- An initial assessment of the conflicts between the Project facilities and current land uses will be provided and recommendations on whether measures are available to reduce or avoid any identified impacts.

Environmental Justice

The Environmental Social Justice Analysis will involve two parts: (1) conducting an Environmental Justice (EJ) screening and (2) preparation of a Stakeholder Engagement Plan. Part two has been added in response to stakeholder comments received on the scope of the Environmental Social Justice Analysis.

The EJ screening will include a high-level overview of the disadvantaged communities potentially affected, which will be identified from available environmental justice screening tools, such as CalEnviroScreen and the Biden-Harris Administration's Climate and Economic

Justice Screening Tool. High-level maps using preliminary Angeles Link routing and agency approved GIS screening tools will be prepared. Demographic information pertinent to the high-level analysis will be described, and any recommendations to avoid/reduce potential impacts and/or changes already incorporated to benefit potentially affected disadvantaged communities will be included.

The analysis will also evaluate the Project's alignment with applicable goals and objectives in the California Public Utilities Commission's Environmental and Social Justice Action Plan 2.0, as well as potential impacts and benefits to disadvantaged communities and other low-income communities of color located in SoCalGas's service territory. Assembly Bill 617 communities that have been selected by the California Air Resources Board to participate in the Community Air Protection Program will be highlighted in the impact and benefits analysis.

The information gathered through EJ screening and PAG/CBO feedback will facilitate preparation of a community focused Environmental Justice Community Engagement Plan. The Environmental Justice Community Engagement Plan will establish an approach or framework for engaging disadvantaged communities with activities anticipated to occur during Phase Two, which will focus on gathering community input to address concerns and mitigate impacts and educating communities on hydrogen related topics of most interest to community members.

Right-of-Way Analysis

Overview

The Decision requires SoCalGas to identify and compare possible routes and configurations for the Project (OP 6 (i)). As part of this assessment, SoCalGas will conduct an initial evaluation to review the potential availability of its existing private rights-of-way to accommodate the Project and future right-of-way locations needed.

Technical Approach

The *Right-of-Way (ROW) Analysis* consists of reviewing potential routes in multiple segments to assess the potential availability of existing private ROWs as well as future ROW locations to accommodate the Project. The review entails 1) identification of private parcel ownership for each segment, and 2) evaluation of terms and conditions of existing ROW agreements where the potential routes parallel existing pipelines in private properties.

Data collection:

Private ownership research will be conducted by retrieving publicly available real estate/property ownership data and public property record information through county tax roll databases and other real estate data service providers such as Data Tree by First American and Land Vision by Lightbox.

Existing ROW research will be conducted by first reviewing GIS and other Company facility maps to determine relevant existing ROW agreements, followed by retrieving the associated

documents from the repository where Company ROWs are stored.

Data evaluation:

Parameters used when evaluating ownership data include:

- Identification of parcels owned by federal, state and local governmental agencies, railroads, other utilities, and private owners with known history which may present acquisition challenges due to long lead time or onerous permitting requirements.
- Detailed title due diligence review for individual private parcels is not part of the ownership data evaluation.

Parameters used when evaluating terms and conditions of existing ROW agreements include:

- Identification of ROW widths
- Type(s) of product allowed to be transported in the ROW
- Whether installation of multiple pipelines is allowed within the ROWs
- Any other limitations or restrictions that may prevent the utilization of existing ROWs.

Approach consideration and review:

For selected segments, a ROW Analysis Summary will be provided, as well as line list providing private parcel ownership information, assessor parcel numbers, and where applicable, existing ROW information and significant terms of the ROW agreement. Assumptions in compiling the line lists and summary reports are as follows:

- Where potential routes parallel public ROWs, assume installation of new pipeline within franchise streets.
- Where potential routes parallel Caltrans controlled-access ROWs, assume installation outside of state ROW in either franchise streets or private parcels adjacent to Caltrans ROW.
- Where potential routes parallel existing pipelines in private ROWs, assume 25' as minimum width required to accommodate the new pipeline, in addition to existing pipeline(s) already installed within the ROWs.

Overview

The Decision requires SoCalGas to identify and compare possible routes and configurations for the Project (OP 6 (i)). As part of this assessment, SoCalGas will conduct an initial evaluation to review the potential availability of its existing franchises³ to accommodate the proposed routes and future franchises needed for the proposed routes.

Technical Approach

Source considerations:

The *Franchise Analysis* consists of reviewing potential routes in multiple segments to assess the potential availability of existing public ROWs as well as future ROW locations to accommodate the Project. The review entails 1) identification of franchise agreements for each segment, and 2) evaluation of terms and conditions of existing franchise agreements where the potential routes would be sited in franchised, public ROWs.

Data collection:

Franchise Agreement research will be conducted by reviewing existing digital and hard copy franchise agreements. The Franchise Analysis will assess existing franchise agreements and, to the extent applicable, relevant provisions in municipal ordinances and/or charters vis-a-vis preliminary routing concepts. This work will include initial review and analysis of:

- The number and types of SoCalGas projects in applicable municipalities
- An assessment of SoCalGas's rights in its existing franchised ROWs (including existing franchise agreement payment mechanisms and other terms or conditions that may implicate clean renewable hydrogen as well as related municipal ordinances and charters)
- Potential terms and conditions, as developed, for clean renewable hydrogen franchises.

Data evaluation:

Certain criteria will be evaluated when assessing franchise agreements, including the term, the subject matter (including purposes and uses) of the grant, the specific public rights-of-way that the franchise agreements provide access to as well as other terms and conditions of each franchise agreement. In addition, SoCalGas will also evaluate municipal charters, as applicable, and relevant ordinances related to or that otherwise implicate hydrogen and/or pipelines in the public right-of-way.

SoCalGas will note and document where new or modified franchise agreements may be necessary to support potential routes and alternatives. The analysis will be synthesized in a

³ A contract, generally in the form of an ordinance passed by a municipality, that grants SoCalGas 'the right, privilege and franchise to lay, construct, operate, maintain, use, repair, replace or remove pipelines, and appurtenances thereto, for transmitting and distributing gas for any and all purposes under, along, across over or upon a municipality's city's existing rights-of-way.'

database/spreadsheet, allowing for land use/franchise comparisons across different potential routes and alternatives.

Approach consideration and review:

For each potential segment, a Franchise Analysis Summary will be provided, as well as a detailed line listing the municipality that owns/operates the public right of way, terms and expirations dates, and pertinent terms and conditions information.

ENGINEERING & DESIGN WORKSTREAM TECHNICAL APPROACHES

Preliminary Routing/Configuration Analysis

Overview

The Decision requires (OP 6 (i)) SoCalGas to identify and compare possible routes and configurations for the Project. This study will (i) determine preferred routing/configuration alternatives for hydrogen system; (ii) consider existing pipeline corridors or rights-of-way, other known existing rights-of-way, franchise rights, designated federal energy corridors or rights-of-way, and the need for new rights-of-way; and (iii) evaluate technical considerations, major crossings, elevations, terrain types, and other potential geographical and urban challenges. This study includes high-level construction staging for implementation of routes and evaluation of a localized hydrogen hub. As part of the configuration analysis, SoCalGas will conduct an initial evaluation of hydrogen storage technology. SoCalGas will assess storage proximity to the Southern California region and both aboveground and underground technologies.

Technical Approach

Approach consideration and review:

SoCalGas' 2021 Report studied conceptual high-level pipeline routings to transport various levels of clean renewable hydrogen to supply demand in the LA Basin along existing Federal Energy Transit Corridors. These potential routes and several alternatives were collected into one System. These routes will be evaluated from an overall System standpoint to determine routes and staging that support both forecasted supply and demand modeling and long-term resiliency. The evaluation process is summarized below:

System Evaluation

Step One: Identify general system routing/pathways and functional zones considering potential Production and Demand locations

Step Two: Identify preferred routes in each of the functional zones: Connection, Collection, Central

Route Evaluation

Step Three: Refine preferred routes and compare to determine preliminary ideal alignment

Step Four: Identify preferred route combinations with components from each of the functional zones and validate to ensure constructability and assess social justice implementation.

The System evaluation (Steps 1 and 2) will aim to assess the overall layout and pathways to safely transport clean renewable hydrogen. The individual routes will be cataloged into three functional zones – Connection, Collection, and Central and combined to form a continuous pipeline network.

- The **Connection Zone** will identify assets necessary to access San Joaquin Valley (Interstate-5/State Route-99 corridor), High Desert (Interstate-15 corridor), Low Desert (Interstate-10 corridor), and Southern Desert (Interstate-40 corridor) supplies.
- The **Collection Zone** will aim to create flexibility between the anticipated areas of higher production and anticipated areas of higher demand.
- The **Central Zone** will assess pipeline and other assets that connect between potential assets in LA Basin.

Assessment will be done from a functional standpoint, assessing the operational characteristics that the segment supports within a conceptual fully built-out clean renewable hydrogen system. Independent factors such as production, demand, storage, and design parameters will then be used in Step Two to identify preferred routes within each functional area based on criteria discussed further herein. Application of design parameters will be further applied to identify potential compression needs in conjunction with anticipated operational model. Preferred routes will be identified in each of the three functional areas.

Those routes identified for further consideration will be used as the basis for which routes are further refined. Preferred routes will be identified in each of the three functional zones identified within the system evaluation. In Step Three, route evaluation will be conducted on a point-to-point basis to determine benefits and elements that may require further refinement. Pipeline characteristic evaluation will be completed by assessing a variety of different evaluation criteria that fall within social, environmental, and engineering categories to assess which features may be more prevalent along a route. This allows for a systematic and quantifiable comparison to aid preferred Project selection.

Lastly, in Step Four, preferred routes from the three functional zones will be grouped to create continuous pathways of transmission. These pathways will be again evaluated from a safety and engineering standpoint to validate constructability, as well as from an environmental social justice standpoint for implementation.

Data collection including regulatory review:

The contractor will work with SoCalGas to collect data from other integrated Angeles Link Phase 1 Studies and GIS. Data compilation will include:

- Literature review and compiling of various information such as jurisdictions and parcel boundaries, infrastructure, soil and geological surveys, floodplain and wetland maps, and other environmental reports.
- Land use and zoning information, as well as the most recent publicly available aerial photography, will be obtained for the project area.
- Information will be obtained from various sources, including federal, state, and local agencies, and information databases accessible through the internet.

Calculation approach:

System evaluation will integrate information from the Demand and Production studies under a variety of different scenarios to identify areas with the greatest opportunity to maximize access and transmission.

- Route evaluation will utilize mileage that is applicable to one criterion compared to another.
- A range of criteria will be used for the process to identify relative significance and create the ability to quantify impacts and identify potentially affected resources, design constraints, and/or potential for lower costs.

Data evaluation:

SoCalGas will evaluate the following categories of information, including, but not limited to:

Route Evaluation Criteria Categories		
Engineering	Social	Environmental
Class Location (Class 1, 2,3,4)	Assembly Bill 617 - Community Air Protection	Air Quality / GHG Emissions
Length in High Consequence Areas (HCA)	Proximity to Sensitive Receptors	Cultural and Tribal Resources
Length in Moderate Consequence Areas (MCAs)	Rural Lands	Land Use & Planning
Length of Bore Crossings	Senate Bill 535 - Disadvantaged Communities	Biological Resources
Length of HDD Crossings	Urban Lands	Energy
Length of Overhead Utilities Within 25 Feet		Hazards & Hazardous Materials
Length of Pipeline		Hydrology and Water Quality
Length Parallel but Outside Existing ROW		Permitting Considerations
Length With a Slope Greater Than 15 Percent		
Length Within a Roadway		
Length Within Existing ROW		
Number of Bore Crossings		
Number of HDD (Horizontal Directional Drill) Crossings		
Number of Railroad Crossings		
Number of Road Crossings		
Soil and Geotechnical Conditions Anticipated		
Temporary		
Underground Foreign Utilities		
Workspace Required		

Pipeline Sizing & Design Criteria

Overview

The Decision requires SoCalGas to compare possible routes and configurations (OP 6 (i)) and evaluate safety concerns for the Project (OP 6 (f)). This study will: (i) estimate potential pipeline sizes for the pipeline route from production to end-use; (ii) identify specific materials for pipeline, fittings, and differences in operational equipment; (iii) discuss safety considerations, pressures, and maintenance operations associated with design; and (iv) evaluate compression characteristics and options.

Technical Approach

[Approach consideration and review:](#)

Pipeline Sizing, Pressure Profile, and Compression

Evaluation of pipeline sizing will consider the results of the production model generated as part of *Production Planning & Assessment* Study. Pipeline sizing options will be developed to meet the needs of the anticipated operating conditions for the new clean renewable hydrogen pipeline system, incorporating each step in the sequential supply/demand increase of the Angeles Link systems developed in the Production and Demand studies. A summary report will be developed illustrating multiple sizing options focused on maintaining reasonable pressure loss and provides

suggestions for future capacity sizing considerations and potential staging to accomplish various demand/supply scenarios.

In addition to performing hydraulics along the refined pipeline routes, multiple scenarios will consider various ways to optimize the pipeline system including the following items:

- Quantities of piping and other materials required for the Project.
- Pipeline operating pressure to optimize system capacity and required system compression (horsepower).
- Loops and branches to reduce required wall thickness, improve resiliency and reliability, and optimize pipeline nominal diameter
- Phased/staged installation of required pipeline section

Hydrogen compression requirements will be assessed along the selected pipeline routes, to determine:

- Total compression requirements (horsepower)
- The total number of compressor stations and their locations
- Heat exchange requirements for the system.

Repurposing

SoCalGas will assess repurposing of existing natural gas pipelines through:

- Evaluation of location
- Pipeline attributes such as grade and wall thickness
- Operational parameters such as in-line inspection records, design level, minimum operating pressure, and maximum allowable operating pressure.

Storage

Storage of hydrogen will be evaluated and incorporated into the sizing optimization.

- Underground storage technologies will be evaluated from a technology readiness level (TRL), location, and by characteristic to rank and establish potential to support operational models and system evaluation.
- Aboveground storage technologies will be evaluated as well from a characteristic standpoint, including cost, capacity, and siting.
- All methods of storage share the goal of safely meeting storage capacity needs with suitable injection and production rates.

Design Basis:

A preliminary design basis will be developed to identify key factors including the operating and design characteristics of clean renewable hydrogen for the various routes and segments, which will be used in the determination of preliminary pipeline sizing, compression requirements, and pipeline material selection. These factors will become further available as the study progresses.

Many of the components of the preliminary design basis and routing will require iteration to finalize, including:

- Routing
- Operating and design characteristics
- Pipeline diameter
- Quantity and sizing of compressor stations and their locations
- Material specifications.

SoCalGas' 2021 Report and appendices were consulted as the first step of the pipeline sizing and design criteria. Once preferred routings are identified, a hydraulic study will be completed to determine the required pipe diameter and compressor station(s) based on the pipeline routing and the desired delivery pressure to the LA Basin and end-use customers.

The preliminary design basis will include the following criteria:

- Federal, state, and local laws and regulations
- Gas standards and specifications
- Industry best practices
- Pipeline engineering and design factors including the following:
 - Design Pressure & Maximum Allowable Operating Pressure
 - Piggability
 - Corrosion Allowance
 - Supervisory Control and Data Acquisition (SCADA), Control Philosophy, Communication, & Monitoring
 - Pipe Coating
 - Constructability Factors

The preliminary design basis will be prepared once appropriate data from the Production, Demand, and Water Resources Analysis has been developed.

Plan for Applicable Safety Requirements

Overview

The Decision requires (OP 6 (f)) SoCalGas to evaluate safety concerns involved in pipeline transmission, storage, and transportation of hydrogen applicable to the Project. This study will evaluate safety concerns and develop an assessment of applicable safety requirements for employee, contractor, system, and public safety.

Technical Approach

Approach consideration and review:

A focus on all aspects of safety and consideration of the physio-chemical properties of

hydrogen is required. A safety assessment will be conducted to include the following features:

1. *High-level characterization of the physical and chemical properties of hydrogen that impact safety in the gas transmission system (including pipeline, compression, storage, and transportation)* – Size of hydrogen molecules, Btu content of hydrogen, combustion temperature of hydrogen, flammability and explosive range, challenges of compressibility, storage, and transportation (by hydrogen trailer) will be addressed. INGAA Foundation safety-related studies will be referenced.
2. *A description of key safety risks, including seismic events, and potential mitigations (utilizing available industry standards)* – API Pipe specifications for 100% hydrogen pipe are in development and will help guide specifications on pipe, valves, and fittings that are approved for 100% hydrogen.
3. *A summary of key safety codes in the US and globally* – US codes and standards to be reviewed will include 49 CFR Part 192, ASME B31.12, and CPUC General Order No. 112-F. International codes will be researched and reviewed; INGAA Foundation safety-related studies also reference other global standards and codes which will be included in the review.
4. *Specifications, standards and protocols for leak detection and employee safety* – SoCalGas will focus on leak detection equipment and safety training for working on hydrogen systems.
5. *Typical operations and maintenance considerations for 100% hydrogen systems to guide pipeline and facilities handling* – 49 CFR Part 192 is the primary federal code for operations and maintenance of pipeline systems transporting natural “and other gases” like hydrogen. GO 112-FE contains additional requirements by the CPUC. Both 49 CFR Part 192 and GO 112-FE will be reviewed and considered as a basis. The study will also consider the potential for future requirements and how to plan for regulatory changes.
6. *A description of organizations accredited to undertake hydrogen safety training, operator training, operator qualifications, and opportunities for collaboration with other stakeholders (community colleges, ports, etc.)* – Training and operator qualification organizations will be researched to determine accreditations.
7. *A summary of public safety concerns and stakeholder engagement processes, including approximate timing of engagement, to help guide development of Hydrogen Public Awareness Plans* – Discussion and education topics will be generated by the consultant and through engagement with external stakeholders. This plan would identify topics to pursue in support of educational opportunities to create awareness in regards to hydrogen safety.
8. *High-level evaluation of existing safety programs, plans, and systems for applicability to 100% hydrogen systems.*
9. *A summary of lessons learned and other relevant information gained from actual experience that could be applicable to the proposed Angeles Link system (including pipeline, compression, storage, and transportation).*

Data evaluation:

SoCalGas will review existing company standards and specification sheets to identify potential impacts, required updates, and/or new processes to be created due to the introduction of the Angeles Link Project. As part of this process, SoCalGas will:

- Create a listing of all standards and specification sheets to track review process
- Conduct a gap analysis for each standard to identify those standards that would be impacted by the introduction of a 100% clean renewable hydrogen system
 - Establish criteria to identify impacts
 - Apply criteria to evaluate standards
 - Determine if existing standards will require an update and/or a new standard
- Review the availability and existence of potential future specifications and standards
- Create timeline/schedule for implementation of changes and additions

Workforce Planning & Training Evaluation

Overview

The Decision requires (OP 6 (e)) SoCalGas to evaluate workforce planning and training. This study will evaluate construction practices and operations and maintenance protocols for utility workers regarding hydrogen infrastructure and workforce needs in terms of staging and growth for the Project.

Technical Approach

Source considerations:

Federal regulations (49 CFR Part 192 Subparts A through P) and CPUC General Order No. 112-F provide a basis for establishing training programs and workforce planning. These rules and regulations contain requirements for procedures that cover a wide range of areas from materials, design, construction, welding, corrosion, testing, operations and maintenance, qualification of pipeline personnel, and integrity management.

Approach consideration and review:

In addition to the federal and CPUC requirements noted above, SoCalGas may have existing Company requirements and protocols that may be part of the evaluation and utilized as the overall basis for proposed updates to existing protocols where applicable. The following areas will be assessed as part of this task:

1. Operations & Maintenance Protocols – Existing SoCalGas natural gas operations and maintenance procedures provide a basis for starting evaluations for hydrogen-specific requirements. Operations and maintenance protocols will be reviewed to provide guidance on including significant language about hydrogen safety, abnormal operating conditions, PPE required and other topics. Additionally, 49 CFR Part 191, 49 CFR Part 199 (Drug &

Alcohol), and GO 112-F will be reviewed for further requirements as well as any California-specific standards such as CalOSHA Title 8 and Cal Gov. Code § 4216. A log of procedures and associated regulatory requirements will be generated to document the guidance on existing standards and potential new standards.

2. Department of Transportation (DOT) and Other Construction Qualification/Protocols – Design and construction requirements including welding, weld flaw criteria, pipe specifications are likely to be developed by API. Protocols will be reviewed and any changes necessary will be identified and incorporated. Pipe manufacturers are actively engaged in evaluating additional pipe specifications for 100% hydrogen systems in conjunction with API and other agencies. A log of specifications and associated regulatory requirements will be generated to document the guidance on existing specifications and potential new specifications.
3. Timeline for Workforce Staging – As the pipeline routing and design is completed and the location of hydrogen production sites, storage sites, and compressor station sites are developed, Operations Management SMEs will review staffing models used on the natural gas system and create the workforce staging and staffing plan, including an estimate of jobs created, for Angeles Link. The staffing model may require updating as the final design for the hydrogen design is developed. The analysis will consider how acquiring the required operations personnel and initiating the training and Operation Qualification (OQ) process may necessarily require the hiring process to start well in advance of planned operations. In addition, opportunities for partnering with local training centers, colleges and industry will be considered.
4. Comparison to Existing SoCalGas Facilities – SoCalGas will review existing SoCalGas natural gas facilities as a basis for applicability to hydrogen facilities and assess potentially required modifications. An existing SoCalGas compressor station and an existing SoCalGas pipeline segment will be used as a starting point for the comparison. Operations Management SMEs and Labor Relations SMEs will be consulted during this comparison.
5. Risk/Mitigation Assessment – SoCalGas will review potential risks associated with workforce planning and training applicable to hydrogen pipelines. As the project proceeds from design to construction to commissioning, effective training will be under constant updates and review. The consultant will review and provide a list of accredited training and operator qualification third party companies who can assist with increasing the effectiveness of workforce training, including lessons learned from prior incidents as applicable to hydrogen.
6. Changes to Existing Processes – SoCalGas will review existing processes related to:
 - Leak Survey
 - Leak Detection
 - Leak Mitigation and Repair
 - Control room and emergency response protocols
 - Integrity Management

Federal regulations (49 CFR Part 192) contain significant language for these processes for the transportation of natural gas – and other gases (such as hydrogen) – by pipeline. Operations Management, Regulatory Compliance, and Control Room Management SMEs will provide input.

A summary report of integrity management issues for the hydrogen pipeline system will be provided.

7. Changes to Human Resource Considerations – SoCalGas will review and develop recommendations regarding human resources issues, including consideration of:
 - Hydrogen system control room management; and
 - Potential for separate job classifications in: Facility operations
 - Facility maintenance
 - Leak Survey
 - Valve maintenance
 - Emergency response
 - Public liaison with emergency response agencies

As part of this process, SoCalGas will consult with Labor Relations SMEs as the study progresses on determining if field personnel and gas control personnel and emergency response personnel can hold dual classifications and operator qualifications in both natural gas and hydrogen. A summary report will consider all the classifications specified within the Company.

8. Changes to Technology & Implementation – SoCalGas will review the potential changes to or additional technology needed to transport 100% hydrogen, including:
 - Close Interval Survey (CIS) – Review and summarize any requirements pertaining to hydrogen.
 - System Analysis Programming (SAP) and Asset Management (GIS) – To be reviewed and summarized from the perspective of Hydrogen System Operations and Integrity Management. Traceable, Verifiable and Complete records of the new hydrogen system are a must have consideration according to the Mega Rule changes to 49 CFR Part 192.
 - SCADA – Capacity and scaling of existing SCADA to include the hydrogen system. SCADA becomes the primary network to monitor system performance, gather critical operating data including leak detections indications, compressor performance, hydrogen productions, and hydrogen storage. These systems will add significant numbers of field data points to the SCADA system necessitating a review of the capacity of existing SCADA system.

Data evaluation:

SoCalGas will perform modeling that takes into account business data that measure and describe work volumes, how employees work, current staffing needs, and labor costs in both time and money. The staffing model will provide insights into the utilization of internal & external resources, identify internal & external factors that drive work volume and forecast workforce level required on specific tasks to meet the objective of the Project. The skills and knowledge required to meet organizational needs of the Project are assessed as well. This evaluation will highlight skill gaps, plan future employee training, promote employee engagement, and drive more accurate external recruitment efforts.

Workforce Capacity Planning Model

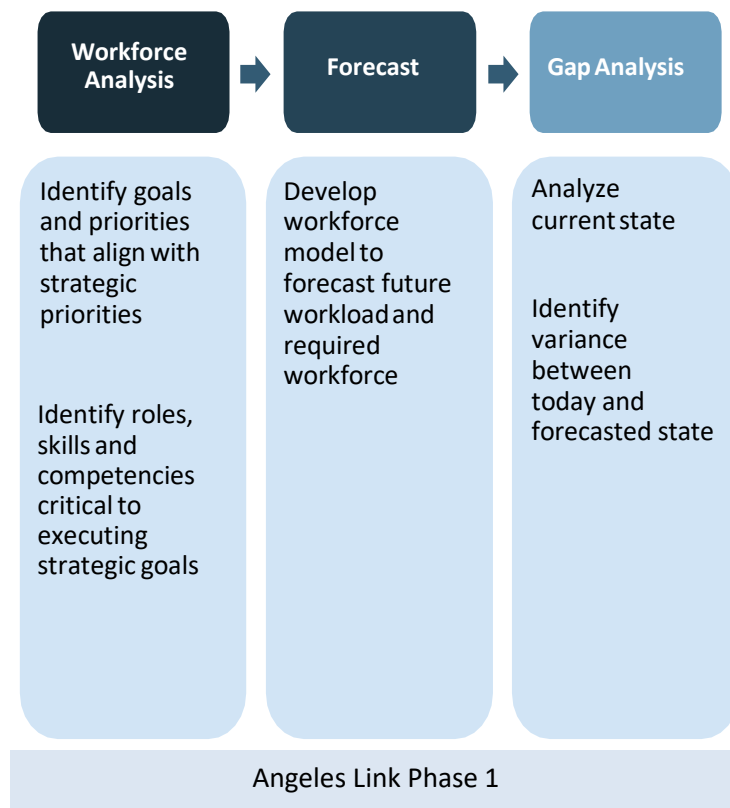


Exhibit P

October 13, 2023

Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013

Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

Feedback for Southern California Gas Company on the Angeles Link Project Phase One Technical Approaches

Communities for a Better Environment (CBE) submits this feedback letter to Southern California Gas Company (SoCalGas) on the Technical Approach for Phase One Studies. CBE offers this feedback to ensure SoCalGas is apprised of critical gaps in their current approach which must be remedied. In some instances, the information provided in the technical approach is too vague to meaningfully respond, an unfortunate barrier to meaningful community engagement and feedback required by the Public Utilities Commission's Angeles Link Decision. SoCalGas must endeavor to provide better information in future, including specific study inputs and descriptions rather than sanitized summaries. In addition to the several issues CBE raises in this letter, we share the newly released equity principles for hydrogen by 9 major California environmental justice organizations which elaborate an environmental justice position on hydrogen production, transportation, storage, and end-uses.

I. Emissions Assessments

a. Climate Impacts

Hydrogen has a known climate warming impact. Though hydrogen is not a direct greenhouse gas, it has significant indirect warming effects. The chemical reactions of hydrogen in the atmosphere increase concentrations of other greenhouse gases, like methane, ozone, and stratospheric water vapor. These hydrogen reactions can lead to an increase in global warming greater than that caused by carbon. Hydrogen can also damage and leak easily from gas lines during production, transportation, and storage. It is extremely important that SoCalGas measures the potential hydrogen impacts of its proposed Angeles Link Project accurately and ensures with absolute certainty that gas leakage impacts are appropriately measured.

The potential impacts of any hydrogen project must be measured completely and accurately. The traditional way of measuring climate forcers such as hydrogen or carbon dioxide has been to calculate the global warming potential (GWP) over 100 years. The GWP 100 calculation was established decades ago and climate science has continued to evolve. While 100

years is still the metric used most often; comparing the climate effects between hydrogen, a climate forcer whose impacts are short-lived, and carbon dioxide, a climate forcer whose impacts are long-lived, will not uncover important emissions data from the project. This traditional metric ignores the near-term impacts of hydrogen and other short-lived climate-forcing agents, masking a much bigger, more immediate influence. Thus, SoCalGas must outline a calculation for its studies that will capture the long- *and* near-term warming impacts of hydrogen. A GWP 20 metric would be a more accurate representation of hydrogen's impacts while it is most forcefully affecting the climate. SoCalGas should use a 20-year measurement as a supplement to, not a replacement of, a longer-term measurement because hydrogen's impacts may remain in the atmosphere beyond the 20-year time period. SoCalGas may also need to look at the relative warming impacts from a continuous—as opposed to a 20- or 100-year pulse—emissions measurement.

b. Local Impacts

In addition to the climate impacts of hydrogen, the local impacts of the Angeles Link project must be addressed. Some of those critical impacts include leakage, combustion, flaring, and NOx emissions.

SoCalGas and other industry operators and regulators have less experience with hydrogen than with other fuels, such as fossil gas. Hydrogen is highly combustible and explodes when mixed with air at a wide range of concentrations. It is even more explosive than methane. Hydrogen is odorless, tasteless, and colorless, making leaks hard to identify with the naked eye or inadequate leak detection technology. As these risks are studied, SoCalGas must establish in their plan for Applicable Safety Requirements extensive protections. Protections must include up front information to local communities of the safety risks as well as a comprehensive alert protocol to notify residents of any threats to their safety that arise along the Angeles Link Project. The risks associated with producing, transporting, and storing hydrogen must be studied extensively *before* placing any hydrogen infrastructure in proximity to residences so that a comprehensive mitigation plan can be implemented to prevent harms to local communities.

While leakage and combustion from gas infrastructure often results from mechanical failure, improper operation, or inadequate precautionary measures, operators who process, transport, store or utilize gases have a practice of purposeful releases gas from pipelines and other infrastructure to relieve pressure and avoid acute risks. Operators often do this without informing local residents, much to the detriment of those residents' air quality, immediate and long-term health, and sense of safety and calm. Any new hydrogen gas releases would perpetuate this toxic practice and interfere with ongoing efforts by fenceline communities to monitor and control harmful “flaring” at oil refineries. SoCalGas must not only include the air impacts of releases or flaring in its emissions studies and leakage assessments but must also center

environmental justice concerns by studying pathways to limiting releases and develop an alert and cataloging protocol to notify local residents when releases and flares occur.

Finally, Nitrogen Oxide (NOx) and other ambient air emissions are a major environmental justice concern. NOx, specifically, is a primary ingredient in the smog that causes a disproportionate increase in asthma diagnoses, respiratory infections, and other lung-related health complications in pollution burdened communities. It is critical that SoCalGas provide more details on how it will measure these emissions, and how the Angeles Link Project will work to decrease air pollution in the Los Angeles Basin. SoCalGas' Demand Study explains that hydrogen may be used in gas-fired power plants to generate electricity. Any emissions study should include emissions projections that incorporate the disparate efficacy of pollution control technology that is likely to under each demand scenario. Studies show that pollution control technology can be less effective during ramping of powerplants or in certain cogeneration configurations. Since reliance on hydrogen to meet times of peak energy demand would mean more ramping up and down, emissions estimates should reflect this.

Hydrogen blended with methane can dramatically increase NOx emissions, increase risk of leakage and explosions, and with current blending capabilities does not greatly reduce greenhouse gas emissions from combustion of fossil gas. For these reasons, CBE opposes blending hydrogen into methane gas for any reason. SoCalGas' NOx emissions assessment states that power generation units such as turbines are the primary source for NOx emissions. The impacts of hydrogen combustion should be a focal point in the study. Scenarios should look at how NOx emissions impact local communities while accounting for existing air pollution.

II. Alternatives Assessments

SoCalGas listed four hydrogen alternatives that it would study in the alternatives assessment required by the Decision: (1) electrification, (2) energy efficiency, (3) renewable natural gas (RNG), and (4) natural gas with carbon management. An energy transition will transform our communities, industry, energy generation, goods movement, and more. These changes will be especially profound for environmental justice communities on the fenceline of oil refining, gas power plants, shipping and drayage, oil drilling, and industrial manufacturing. Separate and apart from SoCalGas' environmental assessments, SoCalGas must explore the impacts of each alternative in these communities. It will be critical in the Angeles Link process to understand how, if at all, hydrogen can help reduce pollution burdens, clean up communities, and remove polluting infrastructure from residential neighborhoods and how it compares with each alternative.

Electrification is a clean, safe, and affordable way to meet California and Los Angeles's climate goals. While hydrogen is a popular emerging climate solution, electrolytic hydrogen is

an immensely inefficient fuel source, and it will be important to assess it alongside data on electrification. Thus, in its alternatives assessment, SoCalGas must identify and explain in detail end-uses that would be better suited to hydrogen fuel than direct electrification.

SoCalGas should *not* include in its analysis alternatives that might create new sources—or exacerbate existing sources—of air pollution in disadvantaged communities. Methane and fossil gas “alternatives,” such as renewable natural gas or natural gas with carbon management, are not true solutions to the climate crisis. Continued reliance on methane or fossil gas will exacerbate existing pollution in environmental justice communities and perpetuate existing harm. To study these alternatives would be contrary to public policy, the Public Utilities Commission’s directives in other proceedings, and a waste of public resources.

III. Economic Assessments

a. Local Economic Impacts

SoCalGas’ economic studies should include analysis of the social costs of continued air and climate pollution. Every year, residents of Wilmington, and similar neighborhoods across the State spend their own dollars on medical bills and sick days, air filters, inhalers, air conditioning units, fans, and more to combat bad air quality and a changing climate. If SoCalGas is intent on measuring the benefits of “creating jobs and economic benefits with the construction of a green energy infrastructure project” it too must examine any costs from the project.

SoCalGas’ Angeles Link application forecast “high-paying jobs for gas workers whose livelihoods are being phased out as the state transitions away from natural gas uses.” Economic studies must examine where jobs will go and who will benefit. If this project brings economic benefits, they must be concentrated in communities where the project is located and ensure economic opportunities will be available for those who have been most harmed by fossil gas’s toxic legacy. Local economic considerations and long-term stability through job opportunities and growth are important to the communities that SoCalGas proposes to run their pipeline through. To have a comprehensive economic analysis that adheres to the Decision, SoCalGas must include these analyses in their overall economic analyses of the Angeles Link Project.

b. Concrete Costs of Hydrogen

Economic studies should include true costs of hydrogen deployment in the industries identified in SoCalGas’ Demand Study. If SoCalGas intends to study demand across its entire service territory, it is imperative that the costs of developing that demand are known. At present, hydrogen end-use infrastructure in Southern California is minimal. The Los Angeles Department of Water and Power has already committed at least \$800 million dollars to retrofit only part of one gas generating station for hydrogen combustion. Deployment of hydrogen fuel cell electric vehicles and hydrogen fueling stations is low. Mileage of hydrogen-ready piping for end-use

delivery is minimal. Infrastructure and technology for commercial harbor craft, ocean going vessels, aerospace, and many industrial end-uses are in their infancy. Projecting each of these demands is one thing, realizing them will be quite another. Understanding these economic strains is essential to assessing the economic impacts of the project and vetting hydrogen against alternatives like electrification. SoCalGas must strive for concrete cost estimates for the end-uses that provide the foundation of their estimated hydrogen demand in addition to their study of the economics of the pipeline itself.

IV. Environmental Social Justice Analysis

The projects' impact on disadvantaged communities should be considered throughout all regulatory, policy, & environmental studies, not just in the EJ analysis portion. Environmental Social Justice Analysis will utilize CalEnviroScreen data and Biden-Harris Administration's Climate and Economic Justice Screening tool. CBE recommends using additional metrics for identifying DAC communities such as participants of utility assistance programs such as SoCalGas CARE program, LADWP EZ-Save Program, LADWP Senior/Disability Lifeline ratepayers.

SoCalGas has spoken favorably of Angeles Link and clean renewable hydrogen and downplayed key concerns brought up by environmental justice voices on the negative impacts of this project such as hydrogen leakage and NOx pollution. SoCalGas is not fit to execute a community engagement plan and may spread misinformation as well as make false promises to community members about safety and environmental impacts of Angeles Link. If Angeles Link were to conduct a Stakeholder Engagement Plan, all materials should be approved by environmental justice participants and the Public Utilities Commission.

In addition to the several issues CBE raises in this letter, we share, attached, Equity Principles for Hydrogen, an Environmental Justice Position on Green Hydrogen in California which offers direction on environmental justice concerns for hydrogen from nine California environmental justice organizations.

Sincerely,

Theo Caretto
Communities for a Better Environment

Attachment

CC:

Emily Grant, SoCalGas

Chester Britt, Arellano Associates

Alma Marquez, Lee Andrews Group

Equity Principles for Hydrogen

Environmental Justice Position on Green Hydrogen in California

October 10, 2023



COMMUNITIES
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CALIFORNIA
ENVIRONMENTAL
JUSTICE ALLIANCE



CENTER ON RACE,
POVERTY & THE
CRPE ENVIRONMENT



Pacoima
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PSR LA
Physicians for Social Responsibility Los Angeles

PREAMBLE

We represent heavily polluted communities throughout the State of California. Our communities border oil refineries, gas-fired power plants, industrial farming operations, fossil fuel extraction facilities, waste processing centers, ports, transportation corridors and other polluting operations. These cumulative sources of pollution cause a wide range of adverse health outcomes in working class communities of color. Our communities share a common fence with facilities and operations that emit toxins, foul smells, and noise and cause nuisance impacting people's quality of life at all hours of the day and night.

The State of California intends to expand the use of hydrogen as a fuel, and to this end, we offer these guiding principles, which are essential to respect and protect our communities. The following principles represent our collective values and positions to support communities as hydrogen energy is utilized across the state.

Equity Principles for Hydrogen

Environmental Justice Position on Green Hydrogen in California

October 10, 2023

These principles were developed in ten workshops and learning sessions for environmental justice partners across California between March and September of 2023. The learning sessions examined the current science, including risks, benefits, and unknowns, and shed light on each stage of the hydrogen cycle, including production, delivery, storage, and use. The workshops allowed our organizations to discuss different perspectives, build consensus, and reflect on how hydrogen may impact our communities.

We adamantly oppose all non-green hydrogen proposals and projects. We insist that new projects protect communities first and do not perpetuate the injustices that polluting infrastructures impose on fence-line communities today. Each stage of the hydrogen life cycle—production, delivery, storage, and end use—can present unique risks and harms to environmental justice communities and to all Californians. Discussions about building new green hydrogen infrastructure must involve the community, and its members should be meaningfully engaged. Siting green hydrogen infrastructure should also take into account the cumulative impacts of environmental justice communities and the risks associated with hydrogen.

PRODUCTION

1. We oppose all hydrogen production that is not green hydrogen production, and we agree that green hydrogen is produced by means of electrolysis using surplus water and additional renewable electricity.

- a. The hydrogen is made using electrolysis of water
 - i. Where water used as feedstock is surplus and not diverted from sources which serve jurisdictions that are struggling or failing to meet clean drinking water needs.
- b. Electrolysis is powered only by electricity produced from new dedicated wind or solar power, and
 - i. The facility generating the electricity used for the production of green hydrogen does not use tradable renewable energy credits.
- c. If any electrolysis facility is connected to the California electricity grid, it must honor the hourly use concept:
 - i. The new renewable generation resource provided for in subsection b(i) above has a first point of interconnection to the California balancing authority in which the electrolytic hydrogen production facility is sited, and

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- ii. The electrolytic hydrogen production facility must use the new renewable electricity in the same hour that the electricity is delivered to the grid.
 - d. Green hydrogen is not defined according to pounds of CO2 equivalent.
 - e. We oppose carbon capture in hydrogen production operations.
 - f. The above conditions must be the starting point for informed community consent to hydrogen production projects. Though the specifics of a green hydrogen production project may be undefined at the outset of community engagement, the public should have faith that all above conditions are met under any project permutation.
- 2. We agree that green hydrogen production projects should consider the impacts of electrolysis and be tightly regulated.**
- a. Projects must include EJ protections related to water use for production/desalination.
 - b. Projects must not negatively impact California's already stretched water supply.
 - c. Projects must not use potable water when drinking water needs are not met.
- 3. We agree that hydrogen production projects must center Tribal consultation and consent for projects considered on or near ceded and unceded Tribal territories.**
- a. State agencies must mandate any recipient of Federal or State level funding to undergo training on Tribal history, cultural sensitivity, and the significance of the Tribal consultation process for all recipient staff expecting to participate in any hydrogen or related project. This requires ongoing education to keep staff updated on evolving Tribal engagement practices. Educational material should be designed by California Native-led nonprofits or the California Native American Heritage Commission.
 - b. All public agencies that have the principal responsibility for carrying out, approving, or expecting to participate in any hydrogen or related project must conduct extensive outreach to California Native American Tribe(s) to increase their sign-on to the Tribal notification list; each agency should have to complete the CEQA process as required by PRC 21080.3.1(b)(1). This should also include updating any outdated communication information to assure proper notification for California Native American Tribe(s) when an agency undertakes a hydrogen or hydrogen related project.

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- c. When a public agency decides to undertake a hydrogen or related project, or decides an application for such a project is complete, this agency must begin the AB 52 Tribal Consultation process. A Tribal liaison must be appointed from the agency with extensive knowledge of the project and Tribal engagement practices to facilitate communication, answer questions, and address concerns from Tribal representatives.
- d. If California Native American Tribe(s) request consultation, a good faith and reasonable effort should be conducted with best practices that include establishing a formal process for meetings, site visits, and opportunities for collaborative discussions and allocating sufficient time for meaningful engagement and dialogue, allowing Tribes to provide input and voice concerns.
- e. Mandate cultural resource assessments for all projects that may impact Tribal resources to include Tribal experts in the assessment process to ensure accurate cultural insights.
- f. Provide consistent updates to Tribes throughout the project's lifecycle, informing them of any changes or developments.
- g. Seek feedback from Tribes on the agency's Tribal consultation process and continuously work to improve its effectiveness.
- h. Assure that any changes to a General Plan or adoption/changes to a Specific Plan in order to create a hydrogen or related project initiates the SB 18 Tribal consultation process in consultation with the Native American Heritage Commission (NAHC). Same practices for the AB 52 process should be followed in this procedure as well.

4. We agree that hydrogen production projects should center community consent and engagement.

- a. Informed community consent is necessary, and should be sought in addition to production conditions listed under #1 being met.
- b. Center community input, continue to elevate EJ voices, and ensure meaningful community participation is present for any hydrogen project. This includes providing language access such as interpretation and translation services for non-English speakers, depending on the common languages spoken in the particular community.
- c. Any new potential hydrogen production project must include the formation of a local oversight committee that will be composed of local stakeholders including local environmental justice, public health, labor, and utility representatives to

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 - i. This includes hydrogen produced by reformation of municipal solid waste gas, livestock biogas (factory farm gas), biomass, lignite or coal, and
 - ii. Hydrogen produced using any fossil fuel as a feedstock.
- b. Hydrogen produced from electrolysis, but powered by dirty electricity sources is not green hydrogen.
 - i. Dirty electricity sources include but are not limited to:
 - 1. Energy produced from combustion of fossil gas, landfill gas, municipal solid waste gas, livestock biogas (factory farm gas), biomass, lignite or coal, and
 - 2. Electricity produced from nuclear fission or fossil, biogas, or landfill gas fuel cells.
- c. Hydrogen produced using carbon capture and sequestration in any point in its production is not green hydrogen.
- d. For existing hydrogen production, we support phasing out electrolysis powered by GHG emitting fuels or non-excess wind/solar.

6. We agree that hydrogen production projects should result in net-reduction of energy pollution.

- a. Hydrogen production should be able to reduce current forms of energy production pollution.

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7. We agree that hydrogen production projects should only be considered if they are limited in scale and scope.

- a. All hydrogen production projects should be limited in size and scope to the maximum extent feasible.
- b. Public and community dollars that financially support hydrogen production should also be heavily regulated and available in public records.

STORAGE & DELIVERY

1. We agree that any hydrogen pipelines and storage infrastructure project should be equipped with safety and leak detection technologies and strictly monitored.

- a. Every hydrogen pipeline and storage infrastructure project must be equipped with effective leak detection technology.
- b. Any proposed project to transport hydrogen must include a leak detection response protocol including an alert system to notify residents and workers of potential exposure, health risks, and a relocation plan until any leak is resolved.
 - i. This program must include language access to all local populations and contact staff that can support coordination of leak response protocol.

2. We agree that any hydrogen delivery project should minimize risk by limiting size and scope and by focusing on environmental impact from development through operations and decommissioning.

- a. All hydrogen transmission and storage infrastructure projects should be limited in size and scope and equipped with design features to:
 - i. Avoid perpetuating the impacts of gas infrastructure on environmental justice communities,
 - ii. Prevent leaks, spills, breaches, and explosions in or near environmental justice communities, environmentally sensitive areas, pollution burdened communities, Tribal land, or any residential areas.
- b. In considering new hydrogen transmission and storage infrastructure, the project should:

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- i. Obtain prior and informed consent from every community and/or Tribe where hydrogen transmission infrastructure originate, pass by, or terminate,
- ii. Define who is responsible for managing infrastructure leaks throughout the lifecycle of design, implementation, and maintenance.
- iii. And should consider:
 - 1. Historic harms gas infrastructure has caused in project communities,
 - 2. Safe, reliable, and efficient alternative methods of energy delivery.
- c. Local and regional hydrogen distribution pipelines and storage/compressor facilities should be limited in size and scope to forward these objectives.

3. We agree that existing methane infrastructure is not equipped to deliver hydrogen safely.

- a. Hydrogen should not be transported in existing methane gas systems.
- b. Hydrogen should never be blended into existing methane pipelines or storage containers.

4. We agree that data gaps should be addressed before hydrogen delivery projects are permitted.

- a. Research into hydrogen pipeline and delivery infrastructure should focus on data gaps including, but not limited to
 - i. Leakage;
 - ii. Appropriate safety testing standards for dedicated hydrogen pipelines;
 - iii. Hydrogen gas impacts on humans, ecosystems, and the climate;
 - iv. Risks and challenges of different hydrogen storage options such as
 - 1. Storage in liquid state,
 - 2. Low temperature storage,
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 - 4. Methanol, and
 - v. Further exploration of data gaps in hydrogen transmission and storage.

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5. We agree that community impacts should determine where hydrogen pipelines are placed.

- a. All hydrogen delivery projects should obtain prior and informed consent required for communities where pipelines or delivery infrastructure are built or hydrogen is introduced.
- b. Hydrogen delivery projects should fully consider and respect
 - i. Historic harms gas infrastructure has caused in project communities,
 - ii. Community expertise of their experience, and
 - iii. Safe, reliable, and efficient alternative methods of energy delivery.

6. We agree that the cost of infrastructure to deliver hydrogen should be clear and transparent to ratepayers and consumers.

- a. Pipeline infrastructure presents a cost issue for ratepayers, given how expensive it is to site and build.

END-USES

1. We agree to principles of supporting electrification, minimizing harm, and centering community voice and environmental impacts in our consideration of any end-uses that could use green hydrogen as a resource or feedstock.

- a. Electrification
 - i. If the end-use can be electrified, green hydrogen should not be used.
 - ii. Electrification should always be prioritized over the use of green hydrogen, including the consideration of rapid advancement in electrification technologies.
 - iii. Emerging electrification technologies should be pursued before considering hydrogen for the end-use.
 - iv. Electrification research and development should be prioritized above hydrogen research and development.
 - v. Hydrogen should only be considered when there is a technical or practical constraint to electrification.
- b. Harmful end-uses

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- i. Harmful end-uses should be reduced or phased out altogether, such as excessive fertilizer use, where possible.
 - ii. Using hydrogen to improve a feedstock for an industry that is a harmful industry shouldn't justify the continued operation of that industry.
 - iii. Potential end-uses should use the Precautionary Principle to first prove that using hydrogen in that context isn't harmful.
- c. Community voice and environmental impacts
 - i. The cost of using green hydrogen in any end-use should not disproportionately impact EJ communities and ratepayers from lower income families.
 - ii. Public funds should be prioritized for advancing electrification over hydrogen.
 - iii. All life-cycle impacts, including financial impacts and health and environmental impacts, should be transparently considered.
 - iv. Any end-use should reduce local and regional pollutants.
 - v. Informed local communities should have veto power over any hydrogen end-use in their communities.
 - vi. EJ communities should have a governing voice in end-use decision-making.
 - vii. Environmental and EJ impact review processes must be thorough and should never be fast-tracked.

2. We prioritize equitable direct electrification with renewable energy, and we agree that green hydrogen should only be used when that is not an option.

- a. Direct electrification with renewable energy is cheaper, safer and more efficient than producing green hydrogen, and therefore should be prioritized.
- b. Green hydrogen should be considered only for necessary end-uses that cannot be supported by electrification or phased out by alternatives.
- c. Hydrogen gas should not be used in residential and commercial buildings because direct electrification with renewable energy is safer and more efficient.
- d. Hydrogen should not be used in transportation methods that can easily be electrified, including passenger cars, light-duty trucking, main line rail, and drayage trucking.
- e. Hydrogen should not be combusted in gas-fired generating units to produce electricity.
- f. Hydrogen should not be blended into the fossil gas system in pursuit of

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decarbonization.

- g. We oppose the use of green hydrogen in carbon capture operations.
- h. We may support the use of hydrogen in fuel cells to power niche applications such as back-up power for Public Safety Power Shutoff (PSPS) events as long as the high-level principles mentioned above are also followed.

3. We agree that additional research is needed regarding the use of green hydrogen in maritime transport, port infrastructure, long-haul trucking, aviation, fertilizer production, and hard-to-electrify industrial manufacturing.

- a. We agree that the principles outlined at the start of this section and elsewhere throughout the document should determine whether hydrogen should be used in any of these applications.
- b. We agree that more research is needed on green hydrogen in fertilizer but oppose any end-use that is used to greenwash or justify the continued over-application of fertilizer in rural communities who are forced to live with contaminated drinking water as a result.

WHO WE ARE

- Asian Pacific Environmental Network (APEN)
- California Environmental Justice Alliance (CEJA)
- Center for Community Action and Environmental Justice (CCA EJ)
- Center on Race, Poverty & The Environment (CPRE)
- Communities for a Better Environment
- Environmental Health Coalition
- Leadership Counsel for Justice and Accountability
- Pacoima Beautiful
- Physicians for Social Responsibility Los Angeles (PSR-LA)

Exhibit Q

November 3, 2023

Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013

Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

Additional Feedback for Southern California Gas Company on Angeles Link Project Phase One Technical Approaches

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the following Technical Approaches for Phase One: Production Planning & Assessment, Preliminary Routing/Configuration Analysis, and Pipeline Sizing & Design Criteria. CBE reiterates the standard of transparency set out in the Public Utility Commission's Angeles Link Decision in regard to the studies being conducted in Phase One, which SoCalGas has not yet met. CBE request SoCalGas provide more specific study descriptions, all study inputs and assumptions, and return full and clear data in study results. CBE also reattaches the equity hydrogen principles of nine major California environmental justice organizations.

I. Production Planning Assessment

SoCalGas must ensure that green hydrogen production modeled in its assessment will not draw down renewable energy supporting California's electricity grid. Production of green hydrogen is an energy-intensive endeavor with the potential to increase fossil fuel reliance and divert renewable energy from powering California's homes and businesses directly. As detailed in CBE's Hydrogen Equity Principles, it is more economically and energy efficient to directly electrify end uses with renewable electricity than to rely on hydrogen as an energy source. For these reasons, hydrogen production should not interfere with direct electrification. Therefore, the SoCalGas Production Planning Assessment must assume hydrogen production supported by new renewable electricity buildout or production only from *surplus* renewable energy. Without such careful planning, the production planning assessment could model a scenario that would increase reliance on fossil gas generation and eliminate any climate benefits.

Production planning should also explicitly exclude carbon credits; carbon capture, sequestration, use, and storage; and other "resource shuffling" arraignments that which divert power generated by existing hydropower, solar, or wind facilities, causing increased grid reliance on fossil fuels. Carbon accounting practices further jeopardize any possible climate benefits of green hydrogen.

Finally, inaccurate demand study inputs and results will negatively impact the accuracy and value of the production planning assessment. As the Utility Consumer Action Network detailed in their September 25 and October 21 feedback letters, SoCalGas' "conservative" demand scenario overestimates Angeles Link's (the "Project") hydrogen demand by at least a

factor of ten. Whatever demand scenarios SoCalGas proceeds with, its production analysis must include the costs associated with building out these additional renewable energy sources and electrolyzer facilities to support the Projects demand. Without a clear picture of the total costs required to produce, transport, and use the amount of hydrogen SoCalGas forecasts in its Demand Study, it will be exceedingly difficult to realistically assess the Project.

II. Preliminary Routing & Configuration Assessment

According to SoCalGas, this study will “(i) determine preferred routing/configuration alternatives for hydrogen system; (ii) consider existing pipeline corridors or rights-of-way, and the need for new rights-of-way; and (iii) evaluate technical considerations, major crossings, elevations, terrain types, and other potential geographical and urban challenges.” CBE is particularly concerned with SoCalGas using existing pipelines and infrastructure to transport and store hydrogen and locating pipelines near sensitive receptors. Much of the gas infrastructure in the Los Angeles Basin was built in and around low-income and minority residential communities without their input, taking advantage of discriminatory zoning practices, such as redlining, as well as the historical silencing of these communities. After decades living with harmful local air, water, and land pollution and climate impacts, these communities will not consent to incomplete and even harmful climate policies dictating the rollout of hydrogen in California. A poorly designed hydrogen rollout could concentrate pollution in already burdened communities even while statewide emissions decline. For the Project, SoCalGas must take pains to remedy this past environmental injustice. Therefore, SoCalGas must be entirely transparent about the existing pipelines, franchises, rights-of-way, and other infrastructure it may utilize; outline its exact plans for that infrastructure; and not proceed without informed consent and forward-looking participation of impacted communities.

III. Pipeline Sizing & Design Assessment

In determining pipeline sizing and design, the emphasis should be on safety, leak prevention, and appropriate inputs. Hydrogen leaks pose local and climate risks. Though hydrogen is not a direct greenhouse gas, it has significant indirect warming impacts detailed in CBE’s October 13 feedback letter. The chemical reactions of hydrogen in the atmosphere increase concentrations of other greenhouse gases, like methane, ozone, and stratospheric water vapor. These climate impacts will limit or erase any benefits of the Project if leakage is not carefully monitored and strictly limited. Additionally, hydrogen leaks harm local communities. Hydrogen is even more explosive than methane, and it is odorless, tasteless, and colorless. This makes leaks dangerous to residents’ physical safety and health and difficult to identify without adequate leak detection technology. It is imperative that hydrogen leaks are prevented throughout the Angeles Link Project. SoCalGas should release explicit information on planned pipeline materials, expected leakage rates, leakage monitoring technology, proposed retrofits, siting, and leakage notification and safety protocols.

In addition to the several issues CBE raises in this letter, we reattach our Equity Principles for Hydrogen, an Environmental Justice Position on Green Hydrogen in California which offers direction on environmental justice concerns of hydrogen from nine California environmental justice organizations.

Sincerely,

Theo Caretto
Communities for a Better Environment

Attachment

CC:
Emily Grant, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link PAG service list

Equity Principles for Hydrogen

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- a. Pipeline infrastructure presents a cost issue for ratepayers, given how expensive it is to site and build.

END-USES

1. We agree to principles of supporting electrification, minimizing harm, and centering community voice and environmental impacts in our consideration of any end-uses that could use green hydrogen as a resource or feedstock.

- a. Electrification
 - i. If the end-use can be electrified, green hydrogen should not be used.
 - ii. Electrification should always be prioritized over the use of green hydrogen, including the consideration of rapid advancement in electrification technologies.
 - iii. Emerging electrification technologies should be pursued before considering hydrogen for the end-use.
 - iv. Electrification research and development should be prioritized above hydrogen research and development.
 - v. Hydrogen should only be considered when there is a technical or practical constraint to electrification.
- b. Harmful end-uses

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- i. Harmful end-uses should be reduced or phased out altogether, such as excessive fertilizer use, where possible.
 - ii. Using hydrogen to improve a feedstock for an industry that is a harmful industry shouldn't justify the continued operation of that industry.
 - iii. Potential end-uses should use the Precautionary Principle to first prove that using hydrogen in that context isn't harmful.
- c. Community voice and environmental impacts
 - i. The cost of using green hydrogen in any end-use should not disproportionately impact EJ communities and ratepayers from lower income families.
 - ii. Public funds should be prioritized for advancing electrification over hydrogen.
 - iii. All life-cycle impacts, including financial impacts and health and environmental impacts, should be transparently considered.
 - iv. Any end-use should reduce local and regional pollutants.
 - v. Informed local communities should have veto power over any hydrogen end-use in their communities.
 - vi. EJ communities should have a governing voice in end-use decision-making.
 - vii. Environmental and EJ impact review processes must be thorough and should never be fast-tracked.

2. We prioritize equitable direct electrification with renewable energy, and we agree that green hydrogen should only be used when that is not an option.

- a. Direct electrification with renewable energy is cheaper, safer and more efficient than producing green hydrogen, and therefore should be prioritized.
- b. Green hydrogen should be considered only for necessary end-uses that cannot be supported by electrification or phased out by alternatives.
- c. Hydrogen gas should not be used in residential and commercial buildings because direct electrification with renewable energy is safer and more efficient.
- d. Hydrogen should not be used in transportation methods that can easily be electrified, including passenger cars, light-duty trucking, main line rail, and drayage trucking.
- e. Hydrogen should not be combusted in gas-fired generating units to produce electricity.
- f. Hydrogen should not be blended into the fossil gas system in pursuit of

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decarbonization.

- g. We oppose the use of green hydrogen in carbon capture operations.
- h. We may support the use of hydrogen in fuel cells to power niche applications such as back-up power for Public Safety Power Shutoff (PSPS) events as long as the high-level principles mentioned above are also followed.

3. We agree that additional research is needed regarding the use of green hydrogen in maritime transport, port infrastructure, long-haul trucking, aviation, fertilizer production, and hard-to-electrify industrial manufacturing.

- a. We agree that the principles outlined at the start of this section and elsewhere throughout the document should determine whether hydrogen should be used in any of these applications.
- b. We agree that more research is needed on green hydrogen in fertilizer but oppose any end-use that is used to greenwash or justify the continued over-application of fertilizer in rural communities who are forced to live with contaminated drinking water as a result.

WHO WE ARE

- Asian Pacific Environmental Network (APEN)
- California Environmental Justice Alliance (CEJA)
- Center for Community Action and Environmental Justice (CCA EJ)
- Center on Race, Poverty & The Environment (CPRE)
- Communities for a Better Environment
- Environmental Health Coalition
- Leadership Counsel for Justice and Accountability
- Pacoima Beautiful
- Physicians for Social Responsibility Los Angeles (PSR-LA)

Exhibit R



Angeles Link Q3 Quarterly Report Appendices (Phase One)

For the Period July 1, 2023, through September 30, 2023

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**APPENDIX 2 –
ATTENDEE LIST OF
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STAKEHOLDER GROUP
MEETINGS,
INCLUDING THOSE
INVITED**

CBOSG July Workshop Attendees - July 19

CBOSG				
Organization	First Name	Last Name	In person	Zoom
Alma Family Services	Aida	Vega	X	
Ballona Wetlands Institute	Marcia	Hanscom	X	
Coalition for Responsible Community Development	Kenta	Estrada-Darley		X
Coalition for Responsible Community Development (CRCD)	Ricardo	Mendoza		X
Communities for a Better Environment	Roselyn	Tovar		X
Defend Ballona Wetlands	Robert	van de Heek		X
Food & Water Watch	Andrea	Vega	X	
Go Green Initiative	Jill	Buck		X
Little Tokyo Community Council	Kristin	Fukushima		X
Los Angeles Indigenous Peoples Alliance	Luis	R Pena	X	
Parents, Educators/Teachers, and Students in Action (PESA)	Sydney	Rogers	X	
Physicians for Social Responsibility LA	Alex	Jasset		X
Protect Playa Now	Faith	Myhra	X	
Reimagine LA Foundation	Rashad	Rucker-Trapp		X
Santa Monica College Eco Action Club	Jackson	Garland	X	
Society of Native Nations	Lydia	Ponce		X
Soledad Enrichment Action	Enrique	Aranda	X	
Southeast Rio Vista YMCA	Gerry	Salcedo	X	
Vote Solar	Andrea	Leon-Grossmann		X
Watts Labor Community Action Committee (WLCAC)	Thelmy	Alvarez		X
Non CBOSG				
Arellano Associates	Rachael	Potts		X
Arellano Associates	Sohrab	Mikanik	X	
Arellano Associates	Stephanie	Espinoza	X	
Arellano Associates	Chester	Britt	X	
California Public Utilities Commission	Christopher	Arroyo		X
Insignia Environmental	Anniken	Lydon		X
Insignia Environmental	Armen	Keochekian		X
Insignia Environmental	Julie	Roshala		X
Lee Andrews Group	Rick	Garcia		X
Lee Andrews Group	Alyssa	Martinez	X	
Lee Andrews Group	Alma	Marquez	X	
Lee Andrews Group	Antonia	Issaevitch	X	
SoCalGas	Andy	Carrasco		X
SoCalGas	Chanice	Allen		X
SoCalGas	Darell	Johnson		X
SoCalGas	Brian	Haas		X
SoCalGas	Megan	Lorenz		X
SoCalGas	Emily	Grant	X	
SoCalGas	Edith	Moreno	X	
SoCalGas	Sebastian	Garza	X	
SoCalGas	Neil	Navin	X	
SoCalGas	Amy	Kitson	X	
SoCalGas	Katrina	Reagan	X	
SoCalGas	Douglas	Chow	X	
SoCalGas	Jill	Tracy	X	
SoCalGas	Frank	Lopez	X	
SoCalGas	Yuri	Freedman	X	
SoCalGas	Larry	Andrews	X	

CBOSG July Workshop Attendees - July 21

CBOSG				
Organization	First Name	Last Name	In person	Zoom
Alma Family Services	Aida	Vega		X
Ballona Wetlands Institute	Marcia	Hanscom		X
California Greenworks	Jessy	Shelton		X
Defend Ballona Wetlands	Robert	van de Hoek		X
Food & Water Watch	Andrea	Vega	X	
Go Green Initiative	Jill	Buck		X
Little Tokyo Community Council	Kristin	Fukushima		X
Los Angeles Indigenous Peoples Alliance	Jamie	Patino		X
Parents, Educators/Teachers, and Students in Action (PESA)	Sydney	Rogers	X	
Physicians for Social Responsibility	Alex	Jasset		X
Protect Playa Now	Faith	Myhra		X
Reimagine LA Foundation	Rashad	Rucker-Trapp		X
Reimagine LA Foundation	Shawna	Andrews	X	
Reimagine LA Foundation	Raul	Claros	X	
Society of Native Nations	Lydia	Ponce		X
Society of Native Nations	Cheyenne	Rendon		X
Soledad Enrichment Action	Enrique	Aranda	X	
Southeast Rio Vista YMCA	Gerry	Salcedo		X
Southside Coalition of Community Health Centers	Andrea	Williams		X
Vote Solar	Andrea	Leon-Grossmann		X
Watts Labor Community Action Committee (WLCAC)	Thelmy	Alvarez	X	
Non CBOSG				
Arellano Associates	Sohrab	Mikanik		X
Arellano Associates	Stephanie	Espinoza	X	
Arellano Associates	Nancy	Verduzco	X	
California Public Utilities Commission	Christopher	Arroyo		X
Insignia Environmental	Anniken	Lydon		X
Insignia Environmental	Julie	Roshala		X
Insignia Environmental	Armen	Keochekian	X	
Insignia Environmental	Alisa	Lykens	X	
Lee Andrews Group	Rick	Garcia		X
Lee Andrews Group	Alyssa	Martinez	X	
Lee Andrews Group	Alma	Marquez	X	
Lee Andrews Group	Eden	Vitakis	X	
SoCalGas	Chanice	Allen		X
SoCalGas	Katrina	Reagan		X
SoCalGas	Darell	Johnson		X
SoCalGas	Kevin	O' Sullivan		X
SoCalGas	Glenn	La Fevers		X
SoCalGas	Clair	Schmidt		X
SoCalGas	Andy	Carrasco	X	
SoCalGas	Emily	Grant	X	
SoCalGas	Edith	Moreno	X	
SoCalGas	Sebastian	Garza	X	
SoCalGas	Douglas	Chow	X	
SoCalGas	Jill	Tracy	X	
SoCalGas	Frank	Lopez	X	
SoCalGas	Geoff	Danker	X	

CBOSG August Workshop Attendees - August 28

CBOSG		
Organization	First Name	Last Name
Ballona Wetlands Institute	Marcia	Hanscom
Breathe Southern California	Marc	Carrel
California Greenworks	Jessy	Shelton
Climate Action Campaign	Ayn	Craciun
Coalition for Responsible Community Development	Ricardo	Mendoza
Coalition for Responsible Community Development	Kenta	Estrada-Darley
Communities for a Better Environment	Roselyn	Tovar
Defend Ballona Wetlands	Robert Roy	van de Hoek
Food & Water Watch	Andrea	Vega
Go Green Initiative	Jill	Buck
Little Tokyo Community Council	Kristin	Fukushima
Nature for All	Belen	Bernal
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Physicians for Social Responsibility-LA	Alex	Jasset
Protect Playa Now	Faith	Myhra
Reimagine LA Foundation	Raul	Claros
Reimagine LA Foundation	Rashad	Rucker-Trapp
Soledad Enrichment Action	Enrique	Aranda
Southside Coalition of Community Health Centers	Andrea	Williams
Vote Solar	Andrea	Leon-Grossmann
Watts Labor Community Action Committee	Thelmy	Alvarez
Watts/Century Latino Organization	Autumn	Ybarra
Non CBOSG		
Arellano Associates	Rachael	Potts
Arellano Associates	Keven	Michel
Arellano Associates	Chester	Britt
Arellano Associates	Stevie	Espinoza
California Public Utilities Commission	Christopher	Arroyo
Insignia Environmental	Armen	Keochekian
Insignia Environmental	Julie	Roshala
Insignia Environmental	Alisa	Lykens
Lee Andrews Group	Rick	Garcia
Lee Andrews Group	Alma	Marquez
Lee Andrews Group	Alyssa	Martinez
SoCalGas	Marissa	Girolamo
SoCalGas	Douglas	Chow
SoCalGas	Emily	Grant
SoCalGas	Jill	Tracy
SoCalGas	Edith	Moreno
SoCalGas	Hector	Moreno
SoCalGas	Chris	Gilbride
SoCalGas	Yuri	Freedman
SoCalGas	Frank	Lopez

SoCalGas

Liz

Davis

CBOSG September Meeting Attendees - September 26

CBOSG				
Organization	First Name	Last Name	In person	Zoom
Alma Family Services	Lourdes	Caracoza		X
Ballona Wetlands Institute	Marcia	Hanscom		X
Breathe Southern California	Marc	Carrel		X
California Greenworks	Jessy	Shelton		X
Coalition for Responsible Community Development	Kenta	Estrada-Darley	X	
Coalition for Responsible Community Development	Ricardo	Mendoza	X	
Communities for a Better Environment	Roselyn	Tovar		X
Defend Ballona Wetlands	Robert	van de Hoek		X
Food and Water Watch	Andrea	Vega	X	
Go Green Initiative	Jill	Buck		X
Greater Zion Church Family	Michael	Fisher		X
Little Tokyo Community Council	Kristin	Fukushima		X
Los Angeles Indigenous People's Alliance	Luis	Pena	X	
Mexican American Opportunity Foundation	Ciriaco	Pinedo		X
Nature for All	Belen	Bernal		X
PESA (Parents, Educators/Teachers & Students in Action)	Ayasha	Johnson		X
Protect Playa Now	Kevin	Weir		X
PSR-LA	Alex	Jasset		X
Reimagine LA Foundation	Rashad	Rucker-Trapp	X	
Soledad Enrichment Action	Enrique	Aranda	X	
Soledad Enrichment Action	Luis	Melliz	X	
Southside Coalition of Community Health Centers	Andrea	Williams		X
Watts Labor Community Action Committee	Ava	Post		X
Non CBOSG				
Arellano Associates	Chester	Britt	X	
Arellano Associates	Stevie	Espinoza	X	
Arellano Associates	Nancy	Verduzco	X	
Arellano Associates	Sohrab	Mikanik	X	
California Public Utilities Commission	Christopher	Arroyo		X
DNV	Pedram	Fanailoo	X	
DNV	Cynthia	Spitzenberger	X	
Insignia Environmental	Armen	Keochekian	X	
Insignia Environmental	Julie	Roshala		X
Insignia Environmental	Alisa	Lykens	X	
Lee Andrews Group	Rick	Garcia		X
Lee Andrews Group	Alma	Marquez	X	
Lee Andrews Group	Alyssa	Martinez	X	
Lee Andrews Group	Alan	Rodriguez		X
Lee Andrews Group	Antonia	Issaevitch	X	
Lee Andrews Group	Edna	Degollado	X	
Mitsubishi Power Americas Inc.	Peter	Sawicki	X	
SoCalGas	Douglas	Chow	X	
SoCalGas	Emily	Grant	X	
SoCalGas	Jill	Tracy	X	
SoCalGas	Edith	Moreno	X	
SoCalGas	Hector	Moreno		X
SoCalGas	Frank	Lopez		X

SoCalGas	Andy	Carrasco	X
SoCalGas	Darrell	Johnson	X
SoCalGas	Theresa	Dao	X
SoCalGas	Amy	Kitson	X
SoCalGas	Katrina	Regan	X
SoCalGas	Chanice	Allen	X
SoCalGas	Glenn	La Fevers	X

PAG July Workshop Attendees - July 18

PAG				
Organization	First name	Last name	In person	Zoom
Agricultural Energy Consumers Assoc	Maddie	Munson		x
Air Products	Miles	Heller		x
California Energy Commission	Rizaldo	Aldas		x
California Hydrogen Business Council	Katrina	Fritz		x
California Manufacturers and Technology Association	Robert	Spiegel		x
California Public Utilities Commission	Christopher	Arroyo		x
California Public Utilities Commission	Arthur	Fisher		x
California Public Utilities Commission	Chris	Myers		x
California Public Utilities Commission	Matthew	Taul		x
Environmental Defense Fund	Joon Hun	Seong		x
Green Hydrogen Coalition	Nick	Connell	x	
Green Hydrogen Coalition	Hope	Fasching		x
SoCal Pipe Trades	Rodney	Cobos		x
South Coast AQMD	Maryam	Hajbabaie		x
South Coast AQMD	Sam	CaO		
Southern California Generation Coalition	Norman	Pedersen	x	
The Utility Reform Network	Marna	Paintsil Anning		x
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele		x
Utility Workers Union of America 483*	Ernest	Shaw	x	
Non PAG				
Arellano Associates	Chester	Britt	x	
Arellano Associates	Stevie	Espinoza	x	
Arellano Associates	Nancy	Verduzco	x	
Insignia Environmental	Armen	Keochekian		x
Insignia Environmental	Anniken	Lydon		x
Insignia Environmental	Julie	Roshala		x
Lee Andrews Group	Rick	Garcia		x
Lee Andrews Group	Alma	Marquez	x	
SoCalGas	Chanice	Allen	x	
SoCalGas	Diana	Boyadjian		x
SoCalGas	Douglas	Chow	x	
SoCalGas	Sebastian	Garza	x	
SoCalGas	Chris	Gilbride		x
SoCalGas	Emily	Grant	x	
SoCalGas	Brian	Haas		x
SoCalGas	Eric	Hofmann		x
SoCalGas	Armando	Infanzon	x	
SoCalGas	Darell	Johnson	x	
SoCalGas	Amy	Kitson	x	
SoCalGas	Glenn	La Fevers	x	
SoCalGas	Megan	Lorenz		x
SoCalGas	Edith	Moreno	x	
SoCalGas	Neil	Navin	x	
SoCalGas	Katrina	Reagan	x	
SoCalGas	Jill	Tracy	x	

PAG July Workshop Attendees - July 20

PAG				
Organization	First name	Last name	In person	Zoom
Agricultural Energy Consumers Assoc	Maddie	Munson		x
Air Products	Miles	Heller	x	
California Energy Commission	Rizaldo	Aldas		x
California Hydrogen Business Council	Katrina	Fritz	x	
California Manufacturers and Technology Association	Robert	Spiegel		x
California Public Utilities Commission	Christopher	Arroyo		x
California Public Utilities Commission	Arthur	Fisher		x
California Public Utilities Commission	Kaj	Peterson		x
California Public Utilities Commission	Chris	Myers		x
California Public Utilities Commission	Matthew	Taul		x
Energy Independence Now	Brian	Goldstein	x	
Environmental Defense Fund	Joon Hun	Seong		x
Green Hydrogen Coalition	Nick	Connell		x
Green Hydrogen Coalition	Hope	Fasching		x
Harbor Trucking Association	Matt	Schrap		x
Local Union 250	Nathaniel	Williams	x	
Local Union 250	Hector	Carbajal	x	
SoCal Pipe Trades	Rodney	Cobos	x	
South Coast AQMD	Maryam	Hajbabaei		x
South Coast AQMD	Aaron	Katzenstein		x
South Coast AQMD	Sam	CaO		x
Southern California Generation Coalition	Norman	Pedersen	x	
The Utility Reform Network	Marna	Paintsil Anning		x
UC Irvine	Jack	Brouwer	x	
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele		x
Utility Workers Union of America 483*	Ernest	Shaw	x	
Utility Workers Union of America 483*	Anthony	Flores	x	
Non PAG				
Arellano Associates	Chester	Britt	x	
Arellano Associates	Stevie	Espinoza	x	
Arellano Associates	Nancy	Verduzco	x	
Insignia Environmental	Armen	Keochekian	x	
Insignia Environmental	Anniken	Lydon	x	
Insignia Environmental	Julie	Roshala		x
Lee Andrews Group	Rick	Garcia		x
Lee Andrews Group	Alma	Marquez	x	
SoCalGas	Diana	Boyadjian		x
SoCalGas	Andy	Carrasco		x
SoCalGas	Douglas	Chow	x	
SoCalGas	Sebastian	Garza	x	
SoCalGas	Emily	Grant	x	
SoCalGas	Aila	Green	x	
SoCalGas	Brian	Haas	x	
SoCalGas	Stephanie	Henley	x	
SoCalGas	Eric	Hofmann		x
SoCalGas	Darell	Johnson	x	
SoCalGas	Amy	Kitson		x
SoCalGas	Glenn	La Fevers	x	
SoCalGas	Frank	Lopez		x
SoCalGas	Edith	Moreno	x	
SoCalGas	Neil	Navin	x	
SoCalGas	Jill	Tracy	x	
SoCalGas	Andrea	Warren		x

PAG August Workshop Attendees - August 29

PAG		
Organization	First name	Last name
Air Products	JP	Gunn
Bizfed	Sarah	Wiltfong
California Hydrogen Business Council	Katrina	Fritz
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Arthur	Fisher
California Public Utilities Commission	Chris	Myers
California Public Utilities Commission	Matthew	Taul
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Justice League	Russell	Lowery
Green Hydrogen Coalition	Nick	Connell
Harbor Trucking Association	Karla	Sanchez
Independent Energy Producer's Association	Jan	Smutny Jones
ILWU Local 13	Sal	DiCostanzo
Los Angeles Department of Water and Power	Aaron	Guthrey
Natural Resources Defense Council	Pete	Budden
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
Southern California Water Coalition	Charles	Wilson
Southern California Generation Coalition	Norman	Pedersen
UC Riverside	Arun	Raju
The United Association	Aaron	Stockwell
Clean Energy Strategies representing Utility Consumer Action Network	Tyson	Seigel
Non PAG		
Arellano Associates	Chester	Britt
Arellano Associates	Stevie	Espinoza
Arellano Associates	Nancy	Verduzco
Arellano Associates	Rachael	Potts
Insignia Environmental	Alisa	Lykens
Insignia Environmental	Armen	Keochekian
Insignia Environmental	Julie	Roshala
Lee Andrews Group	Alma	Marquez
SoCalGas	Chris	Gillbride
SoCalGas	Douglas	Chow
SoCalGas	Emily	Grant
SoCalGas	Edith	Moreno
SoCalGas	Frank	Lopez
SoCalGas	Hector	Moreno
SoCalGas	Jill	Tracy
SoCalGas	Yuri	Freedman
California Strategies	Marybel	Batjer

PAG September Meeting Attendees - September 28

PAG				
Organization	First name	Last name	In person	Zoom
Air Products	Vince	Wiraatmadja	X	
Bizfed	Sarah	Wiltfong		X
California Energy Commission	Rizaldo	Aldas		X
California Hydrogen Business Council	Katrina	Fritz	X	
California Manufacturers and Technology Association	Robert	Spiegel		X
California Public Utilities Commission	Christopher	Arroyo		x
California Public Utilities Commission	Christopher	Myers		x
California Public Utilities Commission	Matthew	Taul		X
California Public Utilities Commission	Nathaniel	Skinner		X
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele		X
Communities for a Better Environment	Theo	Caretto		X
Environmental Defense Fund	Joon Hun	Seong		X
Environmental Defense Fund	Michael	Colvin	X	
Green Hydrogen Coalition	Nick	Connell	x	
Harbor Trucking Association	Karla	Sanchez		X
Los Angeles Department of Water and Power	Nermina	Rucic		x
Los Angeles Department of Water and Power	Jesse	Vismonte		x
Natural Resources Defense Council	Pete	Budden		X
Port of Los Angeles	Mike	Galvin	X	
South Coast AQMD	Sam	Cao		X
Southern CA Water Coalition	Charley	Wilson		x
Utility Workers Union of America 483	Ernest	Shaw	X	
Utility Workers Union of America 483	Robin	Downs	x	
Non PAG				
Arellano Associates*	Chester	Britt	X	
Arellano Associates*	Stevie	Espinoza	X	
Arellano Associates*	Nancy	Verduzco	X	
California Strategies*	Marybel	Batjer	X	
Insignia Environmental	Armen	Keochekian		x
Insignia Environmental	Anniken	Lydon		x
Insignia Environmental	Julie	Roshala		x
Insignia Environmental	Armen	Keochekian		x
Lee Andrews Group*	Alma	Marquez	X	
SoCalGas	VJ	Atavane		x
SoCalGas	Kent	Kauss		x
SoCalGas	Andy	Carrasco		x
SoCalGas	Frank	Lopez		x
SoCalGas*	Douglas	Chow	X	
SoCalGas*	Edith	Moreno	x	
SoCalGas*	Maryam	Brown	X	
SoCalGas*	Yuri	Freedman	X	
SoCalGas*	Darrell	Johnson	X	
SoCalGas*	Jill	Tracy	X	

CBOSG July Workshops Invitee List

Org	First name	Last name
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Diego	Rodriguez
Ballona Wetland Institute	Marcia	Hanscom
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
California Native Vote Project	Rene	Williams
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Coalition for Responsible Community Development	Ricardo	Mendoza
Coalition for Responsible Community Development	Kenta	Estrada-Darley
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero
Defend Ballona Wetlands	Robert "Roy"	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Faith and Community Empowerment (FACE)	Hyepin	Im
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Go Green Initiative	Jill	Buck
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Los Angeles Indigenous People's Alliance	Luis R.	Pena
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Protect Playa Now	Faith	Myhra
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews
Reimagine LA Foundation	Raul	Claros
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Nathan	Aranda

Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Vote Solar	Andrea	Leon-Grossmann
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
Watts/Century Latino Organization	Autumn	Ybarra
Southeast Rio Vista YMCA	Gerry	Salcedo

CBOSG August Workshop Invitee List

Org	First name	Last name
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Ballona Wetland Institute	Marcia	Hanscom
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
California Native Vote Project	Rene	Williams
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Coalition for Responsible Community Development	Ricardo	Mendoza
Coalition for Responsible Community Development	Kenta	Estrada-Darley
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero
Defend Ballona Wetlands	Robert "Roy"	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Faith and Community Empowerment (FACE)	Hyepin	Im
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Go Green Initiative	Jill	Buck
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Los Angeles Indigenous People's Alliance	Luis R.	Pena
Los Angeles Indigenous People's Alliance	Jamie	Patino
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Sydney	Rogers
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Protect Playa Now	Faith	Myhra
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews

Reimagine LA Foundation	Raul	Claros
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Nathan	Aranda
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Vote Solar	Andrea	Leon-Grossmann
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
Watts Labor Community Action Committee	Ava	Post
Watts/Century Latino Organization	Autumn	Ybarra
Southeast Rio Vista YMCA	Gerry	Salcedo

CBOSG September Q3 Meeting Invitee List

Org	First name	Last name
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Ballona Wetland Institute	Marcia	Hanscom
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
California Native Vote Project	Rene	Williams
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Coalition for Responsible Community Development	Ricardo	Mendoza
Coalition for Responsible Community Development	Kenta	Estrada-Darley
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero
Defend Ballona Wetlands	Robert "Roy"	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Faith and Community Empowerment (FACE)	Hyepin	Im
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Go Green Initiative	Jill	Buck
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Los Angeles Indigenous People's Alliance	Luis R.	Pena
Los Angeles Indigenous People's Alliance	Jamie	Patino
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Sydney	Rogers
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Protect Playa Now	Faith	Myhra
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews

Reimagine LA Foundation	Raul	Claros
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Nathan	Aranda
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Vote Solar	Andrea	Leon-Grossmann
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
Watts Labor Community Action Committee	Ava	Post
Watts/Century Latino Organization	Autumn	Ybarra
Southeast Rio Vista YMCA	Gerry	Salcedo

PAG July Workshops Invitee List

Org	First name	Last name
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
ARCHES	Angelina	Galiteva
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Public Utilities Commission	Aruther	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Chistopher	Myers
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
CARB	Steve	Cliff
City of Long Beach*	Mario	Cordero
Clean Energy	Indicated Shippers Representative	
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Theo	Caretto
Earth Justice	Sara	Gersen
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery
GoBiz	Deedee	Myers
Green Hydrogen Coaltion	Nick	Connell
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
International Longshore and Warehouse Union Local 13	Mark	Jurisic
LADWP	Marty	Adams
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Protect our Communities Foundation**	Protect Our Communities Representative	
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Katerine	Ramsey
Southern CA Water Coalition	Charley	Wilson

PAG July Workshops Invitee List

Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
The United Association	Aaron	Stockwell
The Utility Reform Network*	Utility Reform Network Representative	
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483*	Ernest	Shaw
Utility Workers Union of America Local 132	Joe	Moreno
UWUA 132	Mike	Cormode
West Coast Advisors	Maddie	Munson
Utility Workers Union of America 483*	Robin	Downs

PAG August Workshop Invitee List

Org	First name	Last name
Agricultural Energy Consumers Association	Maddie	Munson
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Public Utilities Commission	Matthew	Taul
CARB	Steve	Cliff
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
California Water Data Consortium	Deven	Upadhay
Clean Energy Strategies representing the Utility Consumers' Act	Tyson	Siegele
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Theo	Caretto
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Michael	Colvin
Environmental Defense Fund	Joon Hun	Seong
Environmental Justice League	Russell	Lowery
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Nick	Connell
Green Hydrogen Coalition	Hope	Fasching
Harbor Trucking Association	Matthew	Schrap
Harbor Trucking Association	Karla	Sanchez
Independent Energy Producers Association*	Jan	Smutny Jones
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
LADWP	Marty	Adams
LADWP	Paul	Habib
LADWP	Nermina	Rucic

PAG August Workshop Invitee List

Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
	Protect Our	
	Communities	
Protect our Communities Foundation	Representative	
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Katerine	Ramsey
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Aaron	Katzenstein
South Coast AQMD	Sam	CaO
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
The United Association	Aaron	Stockwell
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno
Utility Workers Union of America Local 132	Mike	Cormode

PAG September Q3 Meeting Invitee List

Org	First name	Last name
Agricultural Energy Consumers Association	Maddie	Munson
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Water Data Consortium	Deven	Upadhay
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Act	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabral
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Nick	Connell
Green Hydrogen Coalition	Hope	Fasching
Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal

PAG September Q3 Meeting Invitee List

Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Protect Our Communities Representative	
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Katherine	Ramsey
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
The United Association	Aaron	Stockwell
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno
Utility Workers Union of America Local 132	Mike	Cormode

Appendix A

CBOSG July 19 Workshop Attendee Roster

#	First Name	Last Name	Affiliation
CBOSGG Members			
1	Aida	Vega	Alma Family Services*
2	Marcia	Hanscom	Ballona Wetlands Institute*
3	Christopher	Arroyo	California Public Utilities Commission
4	Kenta	Estrada-Darley	Coalition for Responsible Community Development
5	Ricardo	Mendoza	Coalition for Responsible Community Development
6	Roselyn	Tovar	Communities for a Better Environment
7	Robert	van de Heok	Defend Ballona Wetlands
8	Andrea	Vega	Food & Water Watch*
9	Jill	Buck	Go Green Initiative
10	Kristin	Fukushima	Little Tokyo Community Council
11	Luis	R Pena	Los Angeles Indigenous Peoples Alliance*
12	Sydney	Rogers	Parents, Educators/Teachers, and Students in Action*
13	Alex	Jasset	Physicians for Social Responsibility LA
14	Faith	Myhra	Protect Playa Now*
15	Rashad	Rucker-Trapp	Reimagine LA Foundation
16	Jackson	Garland	SMC Eco Action Club*
17	Lydia	Ponce	Society of Native Nations
18	Enrique	Aranda	Soledad Enrichment Action*
19	Gerry	Salcedo	Southeast Rio Vista YMCA*
20	Andrea	Leon-Grossmann	Vote Solar
21	Thelmy	Alvarez	Watts Labor Community Action Committee
22	Aida	Vega	Alma Family Services*
23	Marcia	Hanscom	Ballona Wetlands Institute*
24	Christopher	Arroyo	California Public Utilities Commission
Non-CBOSG Members			
25	Rachael	Potts	Arellano Associates
26	Sohrab	Mikanik	Arellano Associates*
27	Stephanie	Espinoza	Arellano Associates*
28	Chester	Britt	Arellano Associates*
29	Anniken	Lydon	Insignia Environmental
30	Armen	Keochekian	Insignia Environmental
31	Julie	Roshala	Insignia Environmental
32	Rick	Garcia	Lee Andrews Group
33	Alyssa	Martinez	Lee Andrews Group*
34	Alma	Marquez	Lee Andrews Group*
35	Antonia	Issaevitch	Lee Andrews Group*

36	Andy	Carrasco	SoCalGas
37	Chanice	Allen	SoCalGas
38	Darrell	Johnson	SoCalGas
39	Brian	Haas	SoCalGas
40	Megan	Lorenz	SoCalGas
41	Emily	Grant	SoCalGas*
42	Edith	Moreno	SoCalGas*
43	Sebastian	Garza	SoCalGas*
44	Neil	Navin	SoCalGas*
45	Amy	Kitson	SoCalGas*
46	Katrina	Reagan	SoCalGas*
47	Douglas	Chow	SoCalGas*
48	Jill	Tracy	SoCalGas*

*Attended in-person

Appendix B

CBOSG July 20 Workshop Attendee Roster

#	First Name	Last Name	Affiliation
CBOSG Members			
1	Aida	Vega	Alma Family Services
2	Marcia	Hanscom	Ballona Wetlands Institute
3	Jessy	Shelton	California Greenworks
4	Christopher	Arroyo	California Public Utilities Commission
5	Robert	van de Hoek	Defend Ballona Wetlands
6	Andrea	Vega	Food & Water Watch*
7	Jill	Buck	Go Green Initiative
8	Kristin	Fukushima	Little Tokyo Community Council
9	Jamie	Patino	Los Angeles Indigenous Peoples Alliance
10	Sydney	Rogers	Parents, Educators/Teachers, and Students in Action*
11	Alex	Jasset	Physicians for Social Responsibility
12	Faith	Myhra	Protect Playa Now
13	Rashad	Rucker-Trapp	Reimagine LA Foundation
14	Shawna	Andrews	Reimagine LA Foundation*
15	Raul	Claros	Reimagine LA Foundation*
16	Lydia	Ponce	Society of Native Nations
17	Cheyenne	Rendon	Society of Native Nations
18	Enrique	Aranda	Soledad Enrichment Action*
19	Gerry	Salcedo	Southeast Rio Vista YMCA
20	Andrea	Williams	Southside Coalition of Community Health Centers

21	Andrea	Leon-Grossmann	Vote Solar
22	Thelmy	Alvarez	Watts Labor Community Action Committee*
23	Aida	Vega	Alma Family Services
24	Marcia	Hanscom	Ballona Wetlands Institute
25	Jessy	Shelton	California Greenworks
26	Christopher	Arroyo	California Public Utilities Commission
27	Robert	van de Hoek	Defend Ballona Wetlands
Non-CBOSG Members			
28	Sohrab	Mikanik	Arellano Associates
29	Stephanie	Espinoza	Arellano Associates*
30	Nancy	Verduzco	Arellano Associates*
31	Anniken	Lydon	Insignia Environmental
32	Julie	Roshala	Insignia Environmental
33	Armen	Keochekian	Insignia Environmental*
34	Alisa	Lykens	Insignia Environmental*
35	Rick	Garcia	Lee Andrews Group
36	Alyssa	Martinez	Lee Andrews Group*
37	Alma	Marquez	Lee Andrews Group*
38	Eden	Vitakis	Lee Andrews Group*
39	Chanice	Allen	SoCalGas
40	Katrina	Reagan	SoCalGas
41	Darrell	Johnson	SoCalGas
42	Kevin	O' Sullivan	SoCalGas
43	Glenn	La Fevers	SoCalGas
44	Clair	Schmidt	SoCalGas
45	Andy	Carrasco	SoCalGas*
46	Emily	Grant	SoCalGas*
47	Edith	Moreno	SoCalGas*
48	Sebastian	Garza	SoCalGas*
49	Douglas	Chow	SoCalGas*
50	Jill	Tracy	SoCalGas*
51	Frank	Lopez	SoCalGas*
52	Geoff	Danker	SoCalGas*

*Attended in-person

Appendix C

CBOSG August 28 Workshop Attendee Roster

#	First Name	Last Name	Affiliation
CBOSG Members			
1	Marcia	Hanscom	Ballona Wetlands Institute

2	Marc	Carrel	Breathe Southern California
3	Jessy	Shelton	California Greenworks
4	Ayn	Craciun	Climate Action Campaign
5	Ricardo	Mendoza	Coalition for Responsible Community Development
6	Kenta	Estrada-Darley	Coalition for Responsible Community Development
7	Roselyn	Tovar	Communities for a Better Environment
8	Robert "Roy"	van de Hoek	Defend Ballona Wetlands
9	Andrea	Vega	Food & Water Watch
10	Jill	Buck	Go Green Initiative
11	Kristin	Fukushima	Little Tokyo Community Council
12	Belen	Bernal	Nature for All
13	Ella	Cavlan	Parents, Educators/Teachers, and Students in Action
14	Alex	Jasset	Physicians for Social Responsibility-LA
15	Faith	Myhra	Protect Playa Now
16	Raul	Claros	Reimagine LA Foundation
17	Rashad	Rucker-Trapp	Reimagine LA Foundation
18	Enrique	Aranda	Soledad Enrichment Action
19	Andrea	Williams	Southside Coalition of Community Health Centers
20	Andrea	Leon-Grossmann	Vote Solar
21	Thelmy	Alvarez	Watts Labor Community Action Committee
22	Autumn	Ybarra	Watts/Century Latino Organization
Non-CBOSG Members			
23	Christopher	Arroyo	California Public Utilities Commission
24	Marissa	Girolamo	SoCalGas
25	Douglas	Chow	SoCalGas
26	Emily	Grant	SoCalGas
27	Jill	Tracy	SoCalGas
28	Edith	Moreno	SoCalGas
29	Hector	Moreno	SoCalGas
30	Chris	Gilbride	SoCalGas
31	Yuri	Freedman	SoCalGas
32	Liz	Davis	SoCalGas
33	Frank	Lopez	SoCalGas
34	Armen	Keochekian	Insignia Environmental
35	Julie	Roshala	Insignia Environmental
36	Alisa	Lykens	Insignia Environmental
37	Rick	Garcia	Lee Andrews Group
38	Alma	Marquez	Lee Andrews Group
39	Alyssa	Martinez	Lee Andrews Group
40	Rachael	Potts	Arellano Associates
41	Keven	Michel	Arellano Associates

42	Chester	Britt	Arellano Associates
43	Stevie	Espinoza	Arellano Associates
44	Marissa	Girolamo	SoCalGas
45	Douglas	Chow	SoCalGas
46	Emily	Grant	SoCalGas
47	Jill	Tracy	SoCalGas

Appendix D

CBOSG Quarterly Meeting #3 Attendee Roster

#	First Name	Last Name	Affiliation
CBOSG Members			
1	Andrea	Vega	Food and Water Watch*
2	Enrique	Aranda	Soledad Enrichment Action*
3	Kenta	Estrada-Darley	Coalition for Responsible Community Development*
4	Luis	Melliz	Soledad Enrichment Action*
5	Luis	Pena	Los Angeles Indigenous People's Alliance*
6	Rashad	Rucker-Trapp	Reimagine LA Foundation*
7	Ricardo	Mendoza	Coalition for Responsible Community Development*
8	Ciriaco	Pinedo	Mexican American Opportunity Foundation
9	Jessy	Shelton	California Greenworks
10	Lourdes	Caracoza	Alma Family Services
11	Marc	Carrel	Breathe Southern California
12	Alex	Jasset	Physicians for Social Responsibility - LA
13	Andrea	Williams	Southside Coalition of Community Health Centers
14	Ava	Post	Watts Labor Community Action Committee
15	Ayasha	Johnson	Parents, Educators/Teachers & Students in Action
16	Belen	Bernal	Nature for All
17	Kevin	Weir	Protect Playa Now
18	Kristin	Fukushima	Little Tokyo Community Council
19	Jill	Buck	Go Green Initiative
20	Michael	Fisher	Greater Zion Church Family
21	Robert	van de Hoek	Defend Ballona Wetlands
22	Marcia	Hanscom	Ballona Wetlands Institute
23	Roselyn	Tovar	Communities for a Better Environment
Non-CBOSG Members			
24	Chester	Britt	Arellano Associates*
25	Stevie	Espinoza	Arellano Associates*
26	Nancy	Verduzco	Arellano Associates*
27	Sohrab	Mikanik	Arellano Associates*
28	Christopher	Arroyo	California Public Utilities Commission

29	Pedram	Fanailoo	DNV*
30	Cynthia	Spitzenberger	DNV*
31	Armen	Keochekian	Insignia Environmental*
32	Julie	Roshala	Insignia Environmental
33	Alisa	Lykens	Insignia Environmental*
34	Rick	Garcia	Lee Andrews Group
35	Alma	Marquez	Lee Andrews Group*
36	Alyssa	Martinez	Lee Andrews Group*
37	Alan	Rodriguez	Lee Andrews Group
38	Antonia	Issaevitch	Lee Andrews Group*
39	Edna	Degollado	Lee Andrews Group*
40	Peter	Sawicki	Mitsubishi Power Americas Inc.*
41	Douglas	Chow	SoCalGas*
42	Emily	Grant	SoCalGas*
43	Jill	Tracy	SoCalGas*
44	Edith	Moreno	SoCalGas*
45	Hector	Moreno	SoCalGas
46	Frank	Lopez	SoCalGas
47	Andy	Carrasco	SoCalGas*
48	Darrell	Johnson	SoCalGas*

*Attended in-person

Exhibit S



Angeles Link Q4 Quarterly Report Appendices (Phase One)

For the Period October 1, 2023, through December 31,
2023

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APPENDIX 9 – SUMMARY OF CBO STAKEHOLDER MEETINGS, INCLUDING
SURVEY QUESTION RESPONSES, OTHER FEEDBACK DURING Q4 MEETINGS,
AND POLLING RESULTS

APPENDIX 10 – SUMMARY OF PAG MEETINGS, INCLUDING SURVEY QUESTION
RESPONSES, OTHER FEEDBACK OBTAINED DURING Q4 MEETINGS, AND
POLLING RESULTS

**APPENDIX 4 –
ATTENDEE LIST FOR
PLANNING ADVISORY
GROUP AND
COMMUNITY BASED
ORGANIZATION
STAKEHOLDER
GROUP MEETINGS,
INCLUDING THOSE
INVITED**

CBOSG October Workshop Invitee List

Org	First name	Last name
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Ballona Wetland Institute	Marcia	Hanscom
Ballona Wetland Institute	Marcia	Hanscom
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
California Native Vote Project	Rene	Williams
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Coalition for Responsible Community Development	Ricardo	Mendoza
Coalition for Responsible Community Development	Kenta	Estrada-Darley
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero
Defend Ballona Wetlands	Robert "Roy"	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Faith and Community Empowerment (FACE)	Hyepin	Im
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Go Green Initiative	Jill	Buck
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Los Angeles Indigenous People's Alliance	Luis R.	Pena
Los Angeles Indigenous People's Alliance	Jamie	Patino
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Sydney	Rogers
Parents, Educators/Teachers, and Students in Action (PESA)	Ayasha	Johnson
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Protect Playa Now	Faith	Myhra

Protect Playa Now	Kevin	Weir
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews
Reimagine LA Foundation	Raul	Claros
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Luis	Melliz
Soledad Enrichment Action	Nathan	Aranda
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Vote Solar	Andrea	Leon-Grossmann
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
Watts Labor Community Action Committee	Ava	Post
Watts/Century Latino Organization	Autumn	Ybarra
Southeast Rio Vista YMCA	Gerry	Salcedo

CBOSG October Meeting Attendees

CBOSG				
Organization	First Name	Last Name	In person	Zoom
Ballona Wetland Institute	Marcia	Hanscom		X
Breathe Southern California	Marc	Carrel		X
California Greenworks	Jessy	Shelton		X
Defend Ballona Wetlands	Robert	van de Hoek		X
Food and Water Watch	Andrea	Vega		X
Go Green Initiative	Jill	Buck		X
Little Tokyo Community Council	Kristin	Fukushima		X
Los Angeles Indigenous People's Alliance	Luis R.	Pena	X	
Mexican American Opportunity Foundation	Cid	Pinedo		X
PESA (Parents,Educators/Teachers & Students in Action)	Shantal	Orea Torres		X
Physicians for Social Responsibility	Alex	Jasset		X
Reimagine LA Foundation	Rashad	Trapp		X
Soledad Enrichment Action	Enrique	Aranda	X	
Soledad Enrichment Action	Luis	Melliz	X	
Watts Labor Community Action Committee	Thelmy	Alvarez		X
Non CBOSG				
Arellano Associates	Chester	Britt	X	
Arellano Associates	Nancy	Verduzco	X	
Arellano Associates	Sohrab	Mikanik	X	
California Public Utilities Commission	Christopher	Arroyo		X
Insignia Environmental	Armen	Keochekian		X
Insignia Environmental	Julie	Roshala		X
Lee Andrews Group	Alyssa	Martinez	X	
Lee Andrews Group	Rick	Garcia		X
Lee Andrews Group	Alma	Marquez	X	
SoCalGas	Chanice	Allen	X	
SoCalGas	Andy	Carrasco		X
SoCalGas	Hector	Moreno		X
SoCalGas	Glenn	LaFevers		X
SoCalGas	Emily	Grant	X	
SoCalGas	Neil	Navin	X	
SoCalGas	Jill	Tracy	X	
SoCalGas	Amy	Kitson	X	
SoCalGas	Katrina	Regan	X	
SoCalGas	Douglas	Chow	X	
SoCalGas	Yuri	Freedman	X	
SoCalGas	Edith	Moreno	X	
SoCalGas	Olga	Quinones	X	
SoCalGas	Sebastian	Garza	X	
SoCalGas	Theresa	Dao	X	

CBOSG December Q4 Invitee List

Organization	First Name	Last Name
Protect Playa Now	Faith	Myhra
Protect Playa Now	Kevin	Weir
Ballona Wetland Institute	Marcia	Hanscom
Ballona Wetland Institute	Marcia	Hanscom
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Vote Solar	Andrea	Leon-Grossmann
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Defend Ballona Wetlands	Robert Roy	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Go Green Initiative	Jill	Buck
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Luis	Melliz
Soledad Enrichment Action	Nathan	Aranda
Communities for Responsible Community Development	Ricardo	Mendoza
Communities for Responsible Community Development	Kenta	Estrada-Darley
Watts/Century Latino Organization	Autumn	Ybarra
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews
Reimagine LA Foundation	Raul	Claros
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
Watts Labor Community Action Committee	Ava	Post
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro

Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Faith and Community Empowerment (FACE)	Hyepin	Im
YMCA of Greater Los Angeles	Gerry	Salcedo
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Sydney	Rogers
Parents, Educators/Teachers, and Students in Action (PESA)	Ayasha	Johnson
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Parents, Educators/Teachers, and Students in Action (PESA)	Olivia	Fike
Los Angeles Indigenous People's Alliance	Luis R.	Pena
Los Angeles Indigenous People's Alliance	Jamie	Patino
California Native Vote Project	Rene	Williams
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero
California Public Utilities Commission	Olga	Quinones
California Public Utilities Commission	Alexander "Sasha"	Cole

CBOSG December Meeting Attendees

CBOSG				
Organization	First Name	Last Name	In person	Zoom
Alma Family Services	Lourdes	Caracoza		X
Ballona Wetlands Institute	Marcia	Hanscom		X
Coalition for Responsible Community Development	Ricardo	Mendoza	X	
Defend Ballona Wetlands	Robert	van de Hoek		X
Go Green Initiative	Jill	Buck		X
Greater Zion Church Family	Chidi	Olunkwa	X	
PESA (Parents,Educators/Teachers & Students in Action)	Olivia	Fike		X
Protect Playa Now	Faith	Myhra		X
Reimagine LA Foundation	Rashad	Rucker-Trapp	X	
Soledad Enrichment Action	Enrique	Aranda	X	
Vote Solar	Andrea	Leon-Grossmann		X
Watts Labor Community Action Committee	Thelmy	Alvarez	X	
Non CBOSG				
Arellano Associates	Chester	Britt	X	
Arellano Associates	Stevie	Espinoza	X	
Arellano Associates	Nancy	Verduzco	X	
Arellano Associates	Sohrab	Mikanik		X
California Public Utilities Commission	Sasha	Cole		X
California Public Utilities Commission	Christopher	Arroyo		X
Hydrogen Fuel Cell Partnership	David	Park	X	
Insignia Environmental	Armen	Keochekian		X
Insignia Environmental	Julie	Roshala		X
Insignia Environmental	Anniken	Lydon		X
Lee Andrews Group	Rick	Garcia		X
Lee Andrews Group	Alma	Marquez	X	
Lee Andrews Group	Alyssa	Martinez	X	
Lee Andrews Group	Isaac	Martinez		X
Lee Andrews Group	Antonia	Issaevitch	X	
Lee Andrews Group	Edna	Degollado	X	
SoCalGas	Maryam	Brown	X	
SoCalGas	Douglas	Chow		X

SoCalGas	Emily	Grant	X
SoCalGas	Jill	Tracy	X
SoCalGas	Edith	Moreno	X
SoCalGas	Frank	Lopez	X
SoCalGas	Andy	Carrasco	X
SoCalGas	Darrell	Johnson	X
SoCalGas	Amy	Kitson	X
SoCalGas	Chanice	Allen	X
SoCalGas	Yuri	Freedman	X
SoCalGas	Theresa	Dao	X
SoCalGas	Olga	Quinones	X

PAG October Workshop Invitee List

Org	First name	Last name
Agricultural Energy Consumers Association	Maddie	Munson
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
Air Products	Vince	Wiraatmadja
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Water Data Consortium	Deven	Upadhay
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Act	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabrales
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Nick	Connell
Green Hydrogen Coalition	Hope	Fasching
Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
Local Union 250	Nathaniel	Williams

PAG October Workshop Invitee List

Local Union 250	Hector	Carbajal
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Protect Our Communities Representative	
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Katherine	Ramsey
South Coast AQMD	Maryam	Hajbabaie
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
The United Association	Aaron	Stockwell
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno
Utility Workers Union of America Local 132	Mike	Cormode

October PAG Workshop - October 18, 2023

PAG				
Organization	First name	Last name	In person	Zoom
Agricultural Energy Consumers Association	Maddie	Munson		x
Air Products*	Lorraine	Paskett	x	
Air Products	Miles	Heller		x
California Energy Commission	Rizaldo	Aldas		x
California Hydrogen Business Council	Katrina	Fritz		x
California Public Utilities Commission	Arthur	Fisher		x
California Public Utilities Commission	Christopher	Arroyo		x
California Public Utilities Commission	Matthew	Taul		x
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele		x
Earth Justice	Sara	Gersen		x
Environmental Defense Fund	Joon Hun	Seong		x
Green Hydrogen Coalition	Nick	Connell		x
Independent Energy Producers Association	Sara	Fitzsimon		x
International Longshore and Warehouse Union Local 13*	Sal	DiConstanzo	x	
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich		x
Los Angeles Department of Water and Power	Aaron	Guthrey		x
Los Angeles Department of Water and Power	Nermina	Rucic		x
Los Angeles Department of Water and Power	Jesse	Vismonte		x
Natural Resources Defense Council	Pete	Budden		x
South Coast AQMD	Maryam	Hajbabaei		x
South Coast AQMD	Sam	Cao		x
Southern California Generation Coalition*	Norman	Pedersen	x	
UCI Advanced Power and Energy Program	Jack	Brouwer		x
Utility Workers Union of America 483*	Ernest	Shaw	x	
Utility Workers Union of America 483*	Robin	Downs	x	
Non PAG				
Arellano Associates*	Chester	Britt	X	
Arellano Associates*	Stevie	Espinoza	X	
Arellano Associates*	Nancy	Verduzco	X	
California Strategies*	Marybel	Batjer	X	
Insignia Environmental	Armen	Keochekian		x
Insignia Environmental	Julie	Roshala		x
Insignia Environmental	Armen	Keochekian		x
Lee Andrews Group*	Alma	Marquez	X	
SoCalGas*	Frank	Lopez	x	
SoCalGas*	Douglas	Chow	X	
SoCalGas*	Amy	Kitson	x	
SoCalGas*	Katrina	Regan	x	
SoCalGas*	Yuri	Freedman	X	
SoCalGas*	Jill	Tracy	X	
SoCalGas	Hector	Moreno		x

PAG December Q4 Invitee List

Organization	First name	Last name
Agricultural Energy Consumers Association	Maddie	Munson
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
Air Products	Vince	Wiraatmadja
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Sasha	Cole
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Water Data Consortium	Deven	Upadhay
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabrales
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Nick	Connell
Green Hydrogen Coalition	Hope	Fasching

Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
Independent Energy Producers Association*	Sara	Fitzsimon
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Protect Our Communities Representative	
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Katherine	Ramsey
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
The United Association	Aaron	Stockwell
UC Davis Insitutue of Transportation Studies	Lukas	Wernert
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno
Utility Workers Union of America Local 132	Mike	Cormode

December Q4 PAG Meeting - December 15, 2023

PAG				
Organization	First name	Last name	In Person	Zoom
Air Products	Miles	Heller		X
Air Products	Lorraine	Paskett		X
California Energy Commission	Rizaldo	Aldas	x	
California Hydrogen Business Council	Katrina	Fritz		X
California Public Utilities Commission	Christopher	Arroyo		X
California Public Utilities Commission	Sasha	Cole		X
California Public Utilities Commission	Matthew	Taul	X	
California Public Utilities Commission	Arthur (Iain)	Fisher	X	
Clean Energy Strategies representing the Utility				
Consumers' Action Network	Tyson	Siegele		X
Earth Justice	Sara	Gersen		X
Environmental Defense Fund	Michael	Colvin	X	
Green Hydrogen Coalition	Hope	Fasching	X	
Harbor Trucking Association	Matthew	Schrap		X
Independent Energy Producers Association	Sara	Fitzsimon		X
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo		X
Local Union 250	Nathaniel	Williams		X
Local Union 250	Hector	Carbajal		X
Los Angeles Department of Water and Power	Jesse	Vismonte		X
Los Angeles Department of Water and Power	Aaron	Guthrey		X
Los Angeles Department of Water and Power	Nermina	Rucic		X
Natural Resources Defense Council	Pete	Budden		X
South Coast AQMD	Sam	Cao		X
Southern CA Water Coalition	Charley	Wilson	X	
Southern California Generation Coalition	Norman	Pedersen	X	
Utility Workers Union of America 483	Ernest	Shaw	X	
PAG				
Arellano Associates	Chester	Britt	x	
Arellano Associates	Stevie	Espinoza	x	
Arellano Associates	Nancy	Verduzco		x
Arellano Associates	Keven	Michele	x	
California Strategies	Marybel	Batjer		x
Insignia Environmental	Armen	Keochekian		x
Insignia Environmental	Julie	Roshala		x
Lee Andrews Group	Alma	Marquez	x	
Lee Andrews Group	Alyssa	Martinez	x	
SoCalGas	Yuri	Freedman	x	
SoCalGas	Neil	Navin	x	
SoCalGas	Darrell	Johnson	x	
SoCalGas	Emily	Grant	x	
SoCalGas	Jill	Tracy	x	
SoCalGas	Andy	Carrasco		x
SoCalGas	Frank	Lopez		x
SoCalGas	Pearl	Hsu		x

Exhibit T

March 29, 2024

Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013

Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

Feedback for Southern California Gas Company on the Angeles Link Project GHG Water and Leakage Reports

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Greenhouse Gas Emissions Preliminary Data and Findings (“GHG study”), Leakage Preliminary Data and Findings (“leakage study”), and Water Resources Evaluation (“water study”).

Greenhouse Gas Emissions Preliminary Data and Findings

The Greenhouse Gas Emissions preliminary findings (“GHG study”) fails to examine significant sources of climate pollution that must be explored to establish an accurate depiction of the ALP’s greenhouse gas impacts. The GHG study is in large part premised on the prior, draft Demand Report, which as several parties have raised, seriously overestimates hydrogen demand and ALP throughput by failing to consider cost and making *significant* assumptions about hydrogen technology adoption. Particularly, in order to remedy the GHG study’s failings, it is critical that the final report:

- Correct the demand study failures raised by UCAN, EDF, and NRDC and utilize revised hydrogen demand inputs to assess GHG emissions impacts of the ALP.¹
- Correct assumptions that underestimate the GHG emissions from hydrogen production processes.
 - The GHG study assumes that electrolysis of hydrogen will not produce GHG emissions during the 2030-2045 period. While CBE strongly advocates for hydrogen to be produced exclusively through electrolysis powered by wind and solar, there are no laws or regulations which mandate this and there is a significant threat that hydrogen electrolysis will be powered by GHG emitting energy sources in California between 2030-2045. The GHG study must not undercount GHG emissions from electrolysis by assuming that all electrolysis will have no climate emissions.
 - The GHG study assumes that biomass gasification will not produce GHG emissions during the study period. The process of biomass gasification produces GHG emissions which are not always avoided or mitigated. The GHG study must not undercount GHG emissions from biomass gasification by assuming that all gasification will have no climate emissions.

¹ Utility Consumers’ Action Network, Feedback for SoCalGas Regarding Demand Study Technical Approach/Data & Preliminary Findings, Sept. 25, 2023; Environmental Defense Fund & Natural Resources Defense Council, Environmental Defense Fund and Natural Resources Defense Council Comments on the Demand Study Draft Report, Feb. 23, 2024; UCAN, Feedback for SoCalGas Regarding Angeles Link Demand Report Draft, Feb. 26, 2024.

- The GHG study appears to undercount GHG emissions from steam reforming of methane gas. Without greater availability of inputs and assumptions it is difficult to fully analyze the accuracy of the study with respect to SMR. The GHG study must not undercount GHG emissions from SMR.
- Specify and include hydrogen leakage on GHG impacts of the ALP.
 - The GHG study excludes the known climate impacts of hydrogen leakage. Hydrogen's physical properties make it difficult to effectively contain and transport, making leakage a significant concern. Despite acknowledging available leakage data and climate impacts in the GHG study and leakage study, the GHG study does not include these figures in ALP emissions estimates. The GHG study must include hydrogen leakage from all points of hydrogen use supported by the ALP in its final GHG emissions results.
- Study lifetime GHG impacts of the ALP including under a robust hydrogen alternatives scenario.
 - The GHG study analyzes a 15-year window of climate emissions, from 2030-2045 only, and presents results without disclosure of assumptions around hydrogen alternatives adoption. Based on the data available, the GHG study fails to examine decarbonization pathways that rely heavily on direct electrification of end-uses with renewable electricity. Rather, based on the flawed data of the Demand Study, the GHG study's limited window excludes crucial future impacts such as extended reliance on and intensification production of methane to produce hydrogen, and continued acceleration of direct electrification eliminating emissions ahead of hydrogen.

Leakage Preliminary Data and Findings

The preliminary leakage report fails to explore end-use leakage estimates or provide specific leakage figures for any link in the ALP's hydrogen chain. Specific figures for hydrogen leakage are necessary to assess climate and public safety impacts of the ALP.

Water Resources Evaluation

The preliminary water resources report fails to assess and report back on issues that are critical for assessing the environmental impact or basic feasibility of supplying hydrogen to the Angeles Link project. The water study does not address any environmental impacts of the project's water draw despite the gas industries' long history of imperiling water resources for low-income, rural, and marginalized communities. Substantially more information is needed, at this early stage, to understand the ALP's water impacts. Particularly, the water study must:

- Study safeguards must be followed to ensure the ALP's water draw does not compete for resources serving water strapped communities.
- Study and include present conditions analysis of drinking water supply in communities that water may be drawn from.
- Study and include energy costs and emissions estimates to purify and deliver water used to supply the ALP.
- Financial costs to develop, purify, deliver, or contract for water used to supply the ALP.
- Study and include water impacts from electricity production required to support water purification, electrolysis or other processes required to supply hydrogen to the ALP.

- Study and include data on size or potential impacts of waste streams from water treatment or other wastewater streams.

Respectfully Submitted.

Theo Caretto
Associate Attorney
Communities for a Better Environment

CC:
Emily Grant, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group

Exhibit U



Angeles Link Q1 2024 Quarterly Report Appendices (Phase 1)

For the Period January 1, 2024, through March 31, 2024

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ATTENDEE LIST FOR
PLANNING ADVISORY
GROUP AND COMMUNITY
BASED ORGANIZATION
STAKEHOLDER GROUP
MEETINGS AND
WORKSHOP, INCLUDING
THOSE INVITED**

PAG February 15 Invitee List

Organization	First name	Last name
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
Air Products	Vince	Wiraatmadja
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Sasha	Cole
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Public Utilities Commission	Benjamin	Tang
California Water Data Consortium	Deven	Upadhay
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Acti	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabrales
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Nick	Connell
Green Hydrogen Coalition	Hope	Fasching
Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
Independent Energy Producers Association*	Sara	Fitzsimon

PAG February 15 Invitee List

Organization	First name	Last name
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Malinda	Dickenson
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Katherine	Ramsey
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
The United Association	Aaron	Stockwell
UC Davis Insitutue of Transportation Studies	Lukas	Wernert
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno
Utility Workers Union of America Local 132	Mike	Cormode

February PAG Workshop - February 15, 2024

PAG				
Organization	First name	Last name	In Person	Zoom
Air Products	JP	Gunn		x
Air Products	Miles	Heller		x
California Energy Commission	Rizaldo	Aldas		x
California Hydrogen Business Council	Katrina	Fritz		x
California Public Utilities Commission	Arthur (Iain)	Fisher		x
California Public Utilities Commission	Christopher	Arroyo		x
California Public Utilities Commission	Matthew	Taul		x
California Public Utilities Commission	Sasha	Cole		x
California Public Utilities Commission	Nathaniel	Skinner		x
California Public Utilities Commission	Benjamin	Tang		x
Clean Energy Strategies representing the Utility Consu	Tyson	Siegele		x
Communities for a Better Environment	Theo	Caretto		x
Environmental Defense Fund	Joon Hun	Seong		x
Environmental Defense Fund	Michael	Colvin		x
Green Hydrogen Coalition	Hope	Fasching		x
Los Angeles Department of Water and Power	Aaron	Guthrey		x
Los Angeles Department of Water and Power	Xinhe	Li		x
South Coast AQMD	Sam	Cao		x
South Coast AQMD	Aaron	Katzenstein		x
Southern CA Water Coalition*	Charley	Wilson	x	
Southern California Generation Coalition	Norman	Pedersen		x
Southern California Pipe Trades	Rodney	Cobos		x
The United Association	Aaron	Stockwell		x
UC Davis Insitutue of Transportation Studies	Lukas	Wernert		x
UCI Advanced Power and Energy Program	Jack	Brouwer		x
Non PAG				
Arellano Associates*	Chester	Britt	x	
Arellano Associates*	Stevie	Espinoza	x	
Arellano Associates	Nancy	Verduzco		x
Arellano Associates*	Keven	Michele	x	
California Strategies	Marybel	Batjer		x
Insignia Environmental	Armen	Keochekian		x
Insignia Environmental	Julie	Roshala		x
Lee Andrews Group*	Alma	Marquez	x	
Lee Andrews Group*	Alyssa	Martinez	x	
SoCalGas*	Neil	Navin	x	
SoCalGas*	Darrell	Johnson	x	
SoCalGas*	Emily	Grant	x	
SoCalGas*	Jill	Tracy	x	
SoCalGas	Andy	Carrasco	x	
SoCalGas	Frank	Lopez	x	
SoCalGas	Pearl	Hsu		x

Attachment A

PAG February 15 Workshop Attendee Roster

#	First Name	Last Name	Affiliation
PAG Members			
1	JP	Gunn	Air Products
2	Miles	Heller	Air Products
3	Rizaldo	Aldas	California Energy Commission
4	Katrina	Fritz	California Hydrogen Business Council
5	Arthur (Iain)	Fisher	California Public Utilities Commission
6	Christopher	Arroyo	California Public Utilities Commission
7	Matthew	Taul	California Public Utilities Commission
8	Sasha	Cole	California Public Utilities Commission
9	Nathaniel	Skinner	California Public Utilities Commission
10	Benjamin	Tang	California Public Utilities Commission
11	Tyson	Siegele	Clean Energy Strategies representing the Utility Consumers' Action Network
12	Theo	Caretto	Communities for a Better Environment
13	Joon Hun	Seong	Environmental Defense Fund
14	Michael	Colvin	Environmental Defense Fund
15	Hope	Fasching	Green Hydrogen Coalition
16	Aaron	Guthrey	Los Angeles Department of Water and Power
17	Xinhe	Li	Los Angeles Department of Water and Power
18	Sam	Cao	South Coast AQMD
19	Aaron	Katzenstein	South Coast AQMD
20	Charley	Wilson	Southern CA Water Coalition*
21	Norman	Pedersen	Southern California Generation Coalition
22	Rodney	Cobos	Southern California Pipe Trades
23	Aaron	Stockwell	The United Association
24	Lukas	Wernert	UC Davis Institute of Transportation Studies
25	Jack	Brouwer	UCI Advanced Power and Energy Program
Non-PAG Members			
26	Chester	Britt	Arellano Associates*
27	Stevie	Espinoza	Arellano Associates*
28	Nancy	Verduzco	Arellano Associates
29	Keven	Michele	Arellano Associates*
30	Marybel	Batjer	California Strategies
31	Armen	Keochekian	Insignia Environmental
32	Julie	Roshala	Insignia Environmental
33	Alma	Marquez	Lee Andrews Group*
34	Alyssa	Martinez	Lee Andrews Group*
35	Neil	Navin	SoCalGas*

#	First Name	Last Name	Affiliation
Non-PAG Members			
36	Darrell	Johnson	SoCalGas*
37	Emily	Grant	SoCalGas*
38	Jill	Tracy	SoCalGas*
39	Andy	Carrasco	SoCalGas
40	Frank	Lopez	SoCalGas
41	Pearl	Hsu	SoCalGas

*attended in-person

CBOSG March 4th Q1 Invitee List		
Organization	First Name	Last Name
Protect Playa Now	Faith	Myhra
Protect Playa Now	Kevin	Weir
Ballona Wetland Institute	Marcia	Hanscom
Ballona Wetland Institute	Marcia	Hanscom
California Greenworks	Mike	Meador
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Vote Solar	Andrea	Leon-Grossmann
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Defend Ballona Wetlands	Robert Roy	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Go Green Initiative	Jill	Buck
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Nathan	Aranda
Communities for Responsible Community Development	Ricardo	Mendoza
Communities for Responsible Community Development	Kenta	Estrada-Darley
Watts/Century Latino Organization	Autumn	Ybarra
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews
Reimagine LA Foundation	Raul	Claros
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
LA Black Workers Center/Care at Work, UCLA Labor Center	Deja	Thomas
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Faith and Community Empowerment (FACE)	Hyepin	Im
YMCA of Greater Los Angeles	Gerry	Salcedo
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Olivia	Fike
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Los Angeles Indigenous People's Alliance	Luis R.	Pena

CBOSG March 4th Q1 Invitee List		
Organization	First Name	Last Name
Los Angeles Indigenous People's Alliance	Jamie	Patino
California Native Vote Project	Rene	Williams
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero

CBOSG March Q1 Meeting Attendees

CBOSG				
Organization	First Name	Last Name	In Person	Zoom
Ballona Wetlands Institute	Marcia	Hanscom	X	
Breathe Southern California	Marc	Carrel		X
California Greenworks	Jessy	Shelton	X	
California Greenworks	Michael	Berns	X	
Coalition for Responsible Community Development	Ricardo	Mendoza	X	
Coalition for Responsible Community Development	Kenta	Estrada-Darley	X	
Defend Ballona Wetlands	Roy	van de Hoek	X	
Faith and Community Empowerment (FACE)	Hyepin	Im		X
Food and Water Watch	Andrea	Vega		X
Go Green Initiative	Jill	Buck	X	
Little Tokyo Community Council	Kristin	Fukushima		X
Los Angeles Indigenous People's Alliance	Luis	Pena	X	
Mexican American Opportunity Foundation	Cid	Pinedo	X	
Parents, Educators/Teachers, Students in Action (PESA)	Ella	Cavlan	X	
Parents, Educators/Teachers, Students in Action (PESA)	Craig	Mendoza		X
Physicians for Social Responsibility-LA	Alex	Jasset		X
Protect Playa Now	Kevin	Weir		X
Reimagine LA	Rashad	Rucker-Trapp	X	
Soledad Enrichment Action	Enrique	Aranda	X	
Soledad Enrichment Action	Nguyet	Galaz	X	
Soledad Enrichment Action	Nathan	Arias	X	
Southeast Rio Vista YMCA	Gerry	Salcedo	X	
Southside Coalition of Community Health Centers	Andrea	Williams		X
Watts Labor Community Action Committee	Thelmy	Alvarez	X	
Watts/Century Latino Organization	Autumn	Ybarra		X
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater		X
Non CBOSG				
California Public Utilities Commission	Sasha	Cole		X
California Public Utilities Commission	Christopher	Arroyo		X
California Strategies	Marybel	Batjer		X
JTM Academy	Amaree	El Jamii	X	
JTM Academy	Bryan	Barnett	X	
JTM Academy	B. Andre	Halloway	X	
TOTAL CBOs			23	

PAG March Invitee List

Organization	First name	Last name
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
Air Products	Vince	Wiraatmadja
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Sasha	Cole
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Public Utilities Commission	Benjamin	Tang
California Water Data Consortium	Deven	Upadhay
City of Burbank	Anthony	D'aquila
City of Long Beach - Long Beach Water	Diana	Tang
City of Long Beach - Utilities	Tony	Foster
City of Long Beach - Utilities	Dennis	Burke
City of Long Beach - Utilities	Heather	Hamilton
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Acti	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabrales
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Hope	Fasching

PAG March Invitee List

Organization	First name	Last name
Green Hydrogen Coalition	Sergio	Dueñas
Green Hydrogen Coalition	Janice	Lin
Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
Independent Energy Producers Association*	Sara	Fitzsimon
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Los Angeles Department of Water and Power	Xinhe	Le
Los Angeles Department of Water and Power	Eric	Hill
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Malinda	Dickenson
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
South Coast AQMD	Vasileios	Papapostolou
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
Southern California Public Power Authority	Charles	Guss
The United Association	Aaron	Stockwell
UC Davis Institute of Transportation Studies	Lukas	Wernert
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw

PAG March Invitee List

Organization	First name	Last name
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno
Utility Workers Union of America Local 132	Mike	Cormode

March PAG Meeting - March 5, 2024

PAG				
Organization	First name	Last name	In Person	Zoom
Air Products	Lorraine	Paskett		x
Air Products	Miles	Heller		x
Bizfed	Sarah	Wiltfong		x
California Energy Commission	Rizaldo	Aldas		x
California Public Utilities Commission	Arthur (Iain)	Fisher		x
California Public Utilities Commission	Christopher	Arroyo		x
California Public Utilities Commission	Matthew	Taul		x
California Public Utilities Commission	Sasha	Cole		x
California Public Utilities Commission	Benjamin	Tang		x
City of Burbank*	Anthony	D'aquila		x
City of Long Beach - Utilities*	Dennis	Burke	x	
City of Long Beach - Utilities*	Heather	Hamilton	x	
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele		x
Communities for a Better Environment	Theo	Caretto		x
Earth Justice	Sara	Gersen		x
Environmental Defense Fund	Joon Hun	Seong		x
Green Hydrogen Coalition	Sergio	Dueñas		x
Los Angeles Department of Water and Power	Jesse	Vismonte		x
Natural Resources Defense Council	Pete	Budden		x
Port of Los Angeles*	Mike	Galvin	x	
South Coast AQMD	Maryam	Hajbabaie		x
South Coast AQMD	Xinhe	Le		x
South Coast AQMD	Vasileios	Papapostolou		x
Southern CA Water Coalition*	Charley	Wilson	x	
Southern California Generation Coalition*	Norman	Pedersen	x	
Southern California Public Power Authority	Charles	Guss		x
The United Association	Aaron	Stockwell		x
University of CA Riverside	Arun	Raju		x
Utility Workers Union of America 483*	Ernest	Shaw	x	
Utility Workers Union of America 483*	Robin	Downs	x	
Non PAG				
Arellano Associates*	Chester	Britt	x	
Arellano Associates*	Stevie	Espinoza	x	
Arellano Associates	Nancy	Verduzco		x
Arellano Associates*	Keven	Michele	x	
California Strategies	Marybel	Batjer		x
Insignia Environmental	Armen	Keochekian		x
Insignia Environmental	Anniken	Lydon		x
Lee Andrews Group*	Alma	Marquez	x	
Lee Andrews Group*	Antonia	Issaevitch	x	
SoCalGas*	Emily	Grant	x	
SoCalGas*	Jill	Tracy	x	
SoCalGas	Andy	Carrasco		x
SoCalGas	Frank	Lopez	x	

March PAG Meeting - March 5, 2024

PAG					
Organization	First name	Last name	In Person	Zoom	
SoCalGas	Pearl	Hsu		x	
SoCalGas*	Chanice	Allen	x		
SoCalGas*	Katrina	Regan	x		
SoCalGas*	Yuri	Freedman	x		
SoCalGas*	Amy	Kitson	x		
SoCalGas*	Larry	Andrews	x		

Attachment A

PAG March 5 Meeting Attendee Roster

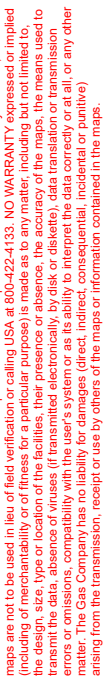
#	First Name	Last Name	Affiliation
PAG Members			
1	Lorraine	Paskett	Air Products
2	Miles	Heller	Air Products
3	Sarah	Wiltfong	Bizfed
4	Rizaldo	Aldas	California Energy Commission
5	Arthur	Fisher	California Public Utilities Commission
6	Christopher	Arroyo	California Public Utilities Commission
7	Matthew	Taul	California Public Utilities Commission
8	Sasha	Cole	California Public Utilities Commission
9	Benjamin	Tang	California Public Utilities Commission
10	Anthony	D'aquila	City of Burbank
11	Dennis	Burke	City of Long Beach – Utilities *
12	Heather	Hamilton	City of Long Beach – Utilities *
13	Tyson	Siegele	Clean Energy Strategies representing the Utility Consumers' Action Network
14	Theo	Caretto	Communities for a Better Environment
15	Sara	Gersen	Earth Justice
16	Joon Hun	Seong	Environmental Defense Fund
17	Sergio	Dueñas	Green Hydrogen Coalition
18	Jesse	Vismonte	Los Angeles Department of Water and Power
19	Pete	Budden	Natural Resources Defense Council
20	Mike	Galvin	Port of Los Angeles *
21	Maryam	Hajbabaei	South Coast AQMD
22	Xinhe	Le	South Coast AQMD
23	Vasileios	Papapostolou	South Coast AQMD
24	Charley	Wilson	Southern CA Water Coalition *
25	Norman	Pedersen	Southern California Generation Coalition *
26	Charles	Guss	Southern California Public Power Authority
27	Aaron	Stockwell	The United Association
28	Arun	Raju	University of CA Riverside
29	Ernest	Shaw	Utility Workers Union of America 483 *
30	Robin	Downs	Utility Workers Union of America 483 *
Non-PAG Members			
31	Chester	Britt	Arellano Associates*
32	Stevie	Espinoza	Arellano Associates*
33	Nancy	Verduzco	Arellano Associates
34	Keven	Michel	Arellano Associates*
35	Marybel	Batjer	California Strategies

#	First Name	Last Name	Affiliation
Non-PAG Members			
36	Armen	Keochekian	Insignia Environmental
37	Anniken	Lydon	Insignia Environmental
38	Alma	Marquez	Lee Andrews Group *
39	Antonia	Issaevitch	Lee Andrews Group *
40	Emily	Grant	SoCalGas *
41	Jill	Tracy	SoCalGas *
42	Andy	Carrasco	SoCalGas
43	Frank	Lopez	SoCalGas *
44	Pearl	Hsu	SoCalGas
45	Chanice	Allen	SoCalGas *
46	Katrina	Regan	SoCalGas *
47	Yuri	Freedman	SoCalGas *
48	Amy	Kitson	SoCalGas *
49	Larry	Andrews	SoCalGas *

*attended in-person

Exhibit V

1 inch = 192,597 feet



Complaint Exhibits - 0302

Exhibit W

May 3, 2024

Southern California Gas Company
555 West Fifth Street
Los Angeles, CA 90013

Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

Re: Feedback for Southern California Gas Company on Preliminary Findings Presentations

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the following matters and documents:

- I. Updated Preliminary Findings Presentation Format;
- II. Preliminary Data and Findings: Plan for Applicable Safety Requirements;
- III. Preliminary Routing/Configuration Analysis, Including Right-of-Way and Franchise: Preliminary Data and Findings;
- IV. Production Planning & Assessment Preliminary Data and Findings;
- V. Preliminary Data and Findings: Workforce Planning & Training Evaluation; and
- VI. Preliminary Data and Findings: High Level Feasibility Assessment & Permitting Analysis.

These comments specifically pertain to the preliminary findings presented in the abbreviated power point presentations provided on April 16, 2024. As CBE stated at the April 23, 2024 joint PAG and CBOSG meeting, CBE expects that a separate, complete draft of the data, analysis, and findings for these topics will be released at an unknown later date. These preliminary presentations lack basic data, let alone the analysis parties need to provide feedback, and these comments cannot, and do not, comprise the entire scope of feedback from CBE on any of the topics presented.

I. Updated Preliminary Findings Presentation Format

As an initial matter, the format and content of the above-listed preliminary findings are unusable, since they offer neither data nor analysis, and do not even allow a clear understanding of the methodological approach SoCalGas envisions undertaking to develop the data and analysis. The preliminary findings fail to include quantitative data and have little qualitative analysis. Each presentation file only has a few slides with substantive information, many slides include images with little to no explanatory text. Most of the presentations in their entirety

contain less than two pages of bullet pointed text. Despite the presentations title identifying them as “data and findings,” the presentations contain no data, or related analysis to support the findings presented therein. It is concerning that with the lack of data and analysis provided, these presentations, and the findings favorable to SoCalGas presented therein, more readily resemble PUC prohibited public relations materials than feasibility studies.¹ Further, SoCalGas’s failure to provide data does not comply with the CPUC Decision D.22-12-055 (hereinafter “CPUC Decision”), part 7 which requires SoCalGas to “make the data, findings, and results of Phase One feasibility studies...available to the public and not redacted unless SoCalGas is granted confidentiality of data.”²

Because the presentations do not include data or analysis, providing feedback on the findings presented is particularly challenging. The CPUC Decision emphasized the importance of stakeholder engagement to identify potential impacts of the project on disadvantaged and environmental justice communities.³ Failing to provide data and analysis in the presentation of these findings stymies meaningful engagement—communities cannot interact with findings if we do not know the facts on which they are based. SoCalGas stated that the data and analysis for these topics will be released at an undisclosed later date when the draft studies are completed. This implies that the statements made in these presentations are presented entirely without completed research, despite the presentations being labelled as including both preliminary data and findings.

SoCalGas represented the presentation format as both an accessible means of further opportunity for community engagement, and a means by which SoCalGas can direct community members to targeted areas for feedback. CBE rejects this characterization; the accessibility of information does not equate to incomplete and unsupported presentations of facts. Further, meaningful community engagement should concern all matters and concerns that community members seek to engage in, not those directed by SoCalGas.

II. Preliminary Data and Findings: Plan for Applicable Safety Requirements

In the Preliminary Data and Findings: Plan for Applicable Safety Requirements (“Safety Plan Presentation”) SoCalGas limits its scope of review to the topics of regulation, construction, and communication. The limited scope Safety Plan Presentation glaringly omits any kind of preliminary risk analysis. In contrast to the lack of risk analysis, the Safety Plan Presentation asserts that a comprehensive framework of safety requirements can mitigate risks. It is unclear how a comprehensive framework could be conceived of, let alone created without any form of risk analysis. Any comprehensive safety plan at base needs to address the risks of the Angeles Link Project in relation to associated safety requirements. Further, the Safety Plan Presentation does not mention safety considerations for the major risks of leakage, exposure, flammability,

¹ CPUC Decision D.22-12-055 (hereinafter CPUC Decision), pg. 38.

² CPUC Decision, Order No. 7 pg. 77.

³ CPUC Decision, pg. 80. See also pg. 58 “Stakeholder engagement, including those from CBOs, ESJ groups, and disadvantaged communities (DAC) groups, are important to the planning process.”

storage, explosion, and end-use related health risks posed by hydrogen use and transportation or safety risks associated with the use of hydrogen in existing methane gas systems.

The Safety Plan Presentation identifies only three study considerations, “1. Pipelines can be a safe and efficient method of transporting large volumes of gas over long distances 2. A comprehensive framework of safety requirements can mitigate hydrogen transport risks 3. SoCalGas has an existing safety framework” without providing any details regarding if or how pipelines can be safe or unsafe, what elements may be required in a comprehensive framework to mitigate risks, or the details of SoCalGas’s existing safety plan and how it can or cannot extend to cover hydrogen transportation. Parties must have the opportunity to engage with a comprehensive safety analysis, which identifies all potential personal, community, and environmental health and safety risks associated with hydrogen and the steps necessary to mitigate these risks. Without providing a clear and transparent safety analysis it is impossible for SoCalGas to meaningfully engage with environmental justice communities on the impacts of the project.

The Safety Plan Presentation’s assertions that “leak detection equipment is available and can be utilized for hydrogen detection” and “studies show odorization of pure hydrogen gas is feasible” are presented without any evidence. These are significant points of safety that should be thoroughly supported with research, especially at the preliminary, feasibility stage. Failing to provide support for these claims raises serious questions as to the validity of SoCalGas’s feasibility studies, and research integrity generally, and the integrity of the Safety Plan Presentation.

The final slide, labeled “25” despite being ninth in a nine-slide deck, is perhaps most surreal. It purports to present “safety study preliminary findings.” Instead, the slide shows a pyramid, listing what may be standards applied by different regulatory agencies. It does not show any findings or, on its face, appear to reference a safety study. This slide is emblematic of the flaws inherent in the new SoCalGas approach to engaging community.

III. Preliminary Routing/Configuration Analysis, Including Right-of-way and Franchise: Preliminary Data and Findings

The content in the Preliminary Routing/Configuration Analysis, Including Right-of-Way and Franchise: Preliminary Data and Findings (“Preliminary Routing Analysis”) is vague and uninformative. One slide states: “Based on preliminary pipeline routing information, there are 60 municipalities with which SoCalGas has franchise agreements and approximately 50% of the potential routes are proximate to ROWs for existing facilities.” This statement is probably the most ‘specific’ included in this slide deck since it at least includes a few numbers, but it still leaves the reader in the dark about specific names of municipalities and ROWs, however tentative they may be. The page about Evaluation Components merely lists several vague factors like “production,” “demand,” and “environmental” without elaborating on any of them.

IV. Production Planning & Assessment Preliminary Data and Findings

The Production Planning and Assessment Preliminary Data and Findings (“Production Presentation”) fails to address significant environmental justice concerns relating to hydrogen production in heavily impacted communities. The three potential communities where production is being explored listed on seventh and final slide of the presentation include the San Joaquin Valley, Lancaster, and Blythe. The Production Presentation does not mention the environmental justice implications of production planning in these communities despite the communities at these potential sites of production ranking in the 80th to 100th percentile on CalEnviroScreen. The San Joaquin Valley is a region covering over 27,000 square miles of California from Bakersfield (138 miles from the port of Los Angeles) with census tracts that rank in the 100th percentile of CalEnviroScreen overall, 97th percentile in pollution burden, and 95th percentile in ozone.⁴ Communities in and around Lancaster (98 miles from the port of Los Angeles) rank in the 89th percentile of CalEnviroScreen, with ozone in the 89th percentile.⁵ Blythe (235 miles from the port of Los Angeles) is in the 92nd percentile overall for CalEnviroScreen, and 80th percentile in pollution burden.⁶ The Production Presentation’s failure examine the impact of production sites on these already impacted communities of the San Joaquin Valley, Lancaster, or Blythe, let alone begin outreach in these communities is unacceptable. The slide deck does not discuss any analysis of onsite or near-site production as an alternative to building massive pipelines connecting environmental justice production-hosting communities.

As mentioned in the CPUC Decision, significant water use is of particular concern in hydrogen production.⁷ The only potential production method explored in the Production Presentation is solar powered electrolysis hydrogen production which SoCalGas identifies but does not commit to as a primary source of clean renewable hydrogen production. Despite solar electrolysis hydrogen production being known to require a significant amount of water, water use is not mentioned once in the Production Presentation. Nor is the fact that the San Joaquin Valley, Lancaster, and Blythe are water strapped communities.

V. Preliminary Data and Findings: Workforce Planning & Training Evaluation

The content in the Workforce Preliminary Data and Findings is too minimal to be useful. We strongly recommend that workforce studies and findings should include requirements for local hires, including members of disadvantaged communities and people of color. The preliminary data and findings make no mention of local hire preferences. Slide 6 refers to “Workforce training for safety and regulatory compliance.” The Workforce Preliminary Data and Findings should include references to worker safety concerns related to transporting 100% hydrogen by pipeline like those in the Safety Plan Presentation discussed above.

⁴ See CalEnviroScreen 4.0, Census Tract 6029002500

⁵ See CalEnviroScreen 4.0, Census Tract 6037900300 and Census Tract 6037900602

⁶ See CalEnviroScreen 4.0, Census Tract 6065046200

⁷ CPUC Decision, Order No. 6 Subd. (b), pg. 76.

VI. Preliminary Data and Findings: High Level Feasibility Assessment & Permitting Analysis

The High Level Feasibility Assessment and Permitting Analysis Preliminary Data and Findings (“Permitting Presentation”) purports to be in alignment with the CPUC Decision “OP 6 (i)”, a notation that may refer to part 6 subdivision (i) of the CPUC Decision Order beginning on page 73. However, more confusingly, part 6, subdivision (i) of the Order, requires SoCalGas to provide findings from its phase one feasibility studies for the purpose of “identification and comparison of possible routes and configurations.”⁸ The Permitting Assessment Presentation provides a rudimentary outline of likely necessary legal requirements broadly for Federal, State, and Local permitting and land use requirements but does not identify where any of these generalized permitting requirements may apply or on what timeline. The Permitting Presentation’s main finding on slide seven states that “permitting timing assumptions range from months to several years.” Without identifying any potential routes in relation to permitting, it is impossible to discern from the array of potential permitting and regulatory requirements which permitting requirements, constraints, and timing considerations will be significant factors in limitation of the project’s development.

VII. Conclusion

CBE appreciates the opportunity to provide feedback on SoCalGas’s new attempt at presenting information for feedback. Neither the format nor the extremely minimal substantive information allows CBE, or other interested stakeholders, to understand the many necessary studies SoCalGas must undertake if it intends to move forward the Angeles Link project.

Respectfully Submitted.

Lauren Gallagher & Jay Parepally

Communities for a Better Environment

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Angeles Link PAG Service List

⁸ CPUC Decision, Order No. 6 Subd. (i), p. 76.

Exhibit X

June 4, 2024

Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013

Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

**Feedback for Southern California Gas Company on Preliminary Findings Presentations
Provided on May 21, 2024**

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the following materials:

- I. Proposed Timelines
- II. Project Options and Alternatives: Preliminary Data and Findings
- III. Pipeline Sizing and Design Criteria: Preliminary Data and Findings
- IV. High-Level Economic Analysis and Cost Effectiveness: Preliminary Data and Findings

These comments specifically pertain only to the preliminary findings presented in the abbreviated presentations provided on May 21, 2024. Per SoCalGas's representations at the April 23, 2024 joint PAG and CBOSG meeting, CBE expects that a separate, complete draft of the data, analysis, and findings will be released at an unknown later date. These preliminary presentations lack basic data, let alone the analysis parties need to provide feedback, and these comments cannot and do not comprise the entire scope of feedback from CBE on any of the topics presented. Failing to provide data does not comply with part seven of the CPUC Decision D.22-12-055 (hereinafter "CPUC Decision"), which requires SoCalGas to "make the data, findings, and results of Phase One feasibility studies...available to the public and not redacted unless SoCalGas is granted confidentiality of data."¹

As previously raised in CBE's May 3, 2024 feedback letter, it is deeply concerning that these presentations are labeled "data and findings." The presentations contain no data or related analysis to support any findings they may be summarizing. Overall, the presentations are more like public relations materials, which the PUC prohibited SoCalGas from promulgating in this

¹ CPUC Decision, Order No. 7 pg. 77.

process, than feasibility studies.² The CPUC Decision emphasized the importance of stakeholder engagement to identify potential impacts of the project on disadvantaged and environmental justice communities.³ Meaningful engagement is impossible without the facts on which findings or conclusions are based.

I. Concerns Regarding Proposed Timelines

CBE is troubled by the shortened timeline for feedback for this set of materials specifically and all materials in general. These materials were provided after 5:00 pm on May 21, 2024, with a feedback submission deadline of June 4, 2024, at 5:00 pm. Accounting for the federally observed holiday of Memorial Day, that is nine business days. This timeline was further strained when SoCalGas released a 60-page Hydrogen Leakage Assessment Draft Report for feedback on May 29, 2024. Under the California Environmental Quality Act (CEQA), the required public comment period for Environmental Impact Reports is at a minimum 30 days and more than 60 days in exceptional circumstances.⁴ Even a negative declaration is open for public review for 20 days at the very least, and local authorities provide for public review of notices of exemption, which can be challenged within 35 days.⁵ CEQA is California's iconic public engagement statute, and its timeline provides a useful comparison for the pace at which SoCalGas demands feedback.

Of even greater concern, the timelines provided in the Project Options and Alternatives, and High-Level Economics Analysis and Cost Effectiveness presentations suggest that the complete studies, which presumably will include all the data and information that is lacking from the presentations, will be released in June 2024 and comments will be "incorporated" in June/July 2024. This timeline is incredibly concerning because these draft studies require considerable time to review in order to provide meaningful feedback. Community groups and other stakeholders have repeatedly requested longer feedback periods for these technical reports. CBE echoes these requests, in asking that SoCalGas adjust these timelines to provide appropriate periods for feedback.

II. Project Options and Alternatives: Preliminary Data and Findings

The Project Options and Alternatives: Preliminary Data and Findings Presentation ("Alternatives Presentation") is rooted in a set of criteria established by SoCalGas for the purpose of evaluating options and alternatives to the Angeles Link project. The Alternatives Presentation does not provide any substantive basis for establishing these criteria as a valid means of comparing and "carrying through" project options or alternatives. The Angeles Link project as it has been proposed is a significant investment of public funds, for new hydrogen

² CPUC Decision D.22-12-055 (hereinafter CPUC Decision), pg. 38.

³ CPUC Decision, pg. 80. See also pg. 58 "Stakeholder engagement, including those from CBOs, ESJ groups, and disadvantaged communities (DAC) groups, are important to the planning process."

⁴ Cal. Pub. Resources Code §21091; Cal. Code Regs. Tit. 14 §15105.

⁵ Cal. Pub. Resources Code §21091; Cal. Code Regs. Tit. 14 §15062.

infrastructure that covers vast swaths of Southern California with substantial impact and risks to communities along the pipeline. Accurately and transparently weighing alternatives such as electrification at this early juncture in decision making is important to obtaining meaningful community consent and feedback. The Alternatives Presentation fails to do so.

In the Alternatives Presentation it is unclear what the complete set of criteria even are. Nine distinct criteria are named throughout the presentation, but only five of these criteria are defined. On slide three SoCalGas states that “alternatives that meet the criteria established in the study will be carried forward to the environmental and environmental social justice analysis.” However, confusingly, slide 11 indicates that environmental impacts are a criterion of comparison based on the category’s inclusion in a comparative heat map. Failing to provide a complete set of criteria and definitions precludes community members from providing feedback on the comparative process which is essential to establishing the viability of alternatives. Further, the Alternatives Presentation provides conflicting information about how undefined criteria are established within this study and in relation to others. For example, while CBE strongly supports screening alternatives based on “Alignment with California’s Environmental Law and Public Policies”, SoCalGas identifies only three applicable laws and policies - the 2022 Scoping Plan, the Advanced Clean Fleets regulation and the Executive Order (N-79-202) on zero-emissions vehicles.⁶ Is this the invitation from SoCalGas for feedback on the laws and policies it should include in the screening criteria? If so, CBE requests confirmation and an opportunity to provide additional briefing, as we have extensive experience explaining to decisionmakers such as the PUC and local decisionmakers what environmental laws and policies apply to projects like Angeles Link, but it is not at all clear from the slide deck whether the listed laws/policies are illustrative or comprehensive. This lack of clarity calls into question the reliability of the findings presented in the Alternatives Presentation. CBE requests that SoCalGas clearly define each criterion and establish a separate criterion of evaluation for environmental justice concerns.

It is unclear how the criteria are applied and what exactly the four-part color-coded scale used in comparative heat maps represents. In the study approach slide⁷, step two states that SoCalGas will “evaluate potential alternatives against identified criteria” but does not elaborate, and no further clarity is provided in the presentation. When examining the multiple heat map charts using the same four-part color scale which ranks criteria from highest to lowest score, Angeles Link is rated differently throughout. Because no background is provided on how or what kind of evaluation criteria are used, it is impossible to discern what a high or low score indicates. For example, on slide six, Angeles Link does not satisfy the technological maturity criteria, however later in the presentation on slide 13, in the same category as applied to distinct subsectors Angeles Link was rated in the middle of the high to low scale. Further, slide 13 asserts that “molecules are easier to store than electrons, supporting system reliability”, but provides no evidence for this statement that is heavily contested. These and other inconsistencies and questionable assertions throughout the Alternatives Presentation raise significant questions as to the legitimacy of SoCalGas’ findings. These inconsistencies seem to indicate a troubling bias

⁶ Project Options and Alternatives, Slide 7.

⁷ Project Options and Alternatives, Slide 4.

towards development of the Angeles Link project over alternatives. This lack of transparency regarding alternative comparison and the overall criteria application process precludes meaningful community feedback on the important matter of alternatives comparison.

Further, an array of non-hydrogen alternatives are dismissed without providing information on the application of the stated criteria. For the sake of transparency and equitable analysis, CBE requests that SoCalGas provide the analysis related to the following dismissed alternatives: Energy Efficiency, Hydro, Geothermal, and Plug-in Hybrid.

Although the presentation slide deck does not show how SoCalGas arrived at its methodology, CEQA requires alternatives consideration, and the CEQA guidelines may be instructive. These require consideration of a “no project” alternative and alternatives that are feasible and meet some of the project’s high-level goals, which cannot be framed in terms so narrow that only the project could meet them.⁸

SoCalGas concludes the slide deck by summarizing stakeholder feedback. While it identifies parties, including CBE, who have submitted feedback, it is impossible to discern from the summary slide what feedback is attributable to any particular group. This gives the classic “hearsay” problem, by making sweeping statements that are unreliable and untraceable. To the extent SoCalGas intends to summarize participant comments, it should identify who said what, so CBE can understand SoCalGas’s responses to its comments.

III. High-Level Economic Analysis and Cost Effectiveness: Preliminary Data and Findings

The High-Level Economic Analysis and Cost Effectiveness: Preliminary Data and Findings presentation (“Economic Presentation”) provides no data or explanation of the methods of analysis, and troublingly only compares the estimated cost of Angeles Link to selected alternatives. At this early stage, the projected costs for the Angeles Link project already amount to billions of dollars. SoCalGas clearly intends to rate-base this costly infrastructure, which will particularly harm ratepayers in low income communities of color who already carry a disproportionate burden of utility debt and are more susceptible to shut off.⁹ Particularly with respect to the use of hydrogen in electricity production, low-income ratepayers could be bearing higher costs both for the infrastructure (Angeles Link) and in their electric bills, whether through LADWP or Southern California Edison. The Economic Presentation is entirely silent about ratepayer impacts.

⁸ Cal. Code Regs. Tit. 14 §15126.6; *see also* Cal. Pub. Resources Code Section 21083; 21002, 21002.1, 21003, and 21100; *Citizens of Goleta Valley v. Board of Supervisors*, (1990) 52 Cal.3d 553; *Laurel Heights Improvement Association v. Regents of the University of California*, (1988) 47 Cal.3d 376; *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359; and *Laurel Heights Improvement Association v. Regents of the University of California* (1993) 6 Cal.4th 1112.

⁹ Paul M. Ong et al., *Keeping the Stove On: COVID-19 and Utility Debt*, UCLA Luskin Center for Innovation, (2021). “Gas bill debt disproportionately impacts low-income neighborhoods.

The Economic Presentation only examines production, storage, transmission, regasification, liquification, and distribution once the Angeles Link pipeline is in place. The Economic Presentation fails to account for the significant economic cost of building out pipeline infrastructure. In fact, the presentation does not provide any estimates regarding the cost of the project or potential funding in support of the project. Information regarding the complete estimated cost of the project must be made available before any further action on the Project can be taken.

Slide nine of the Economic Presentation borrows the comparative heat map, four color scale diagram provided in the Alternatives Presentation to provide a comparative evaluation of the cost effectiveness of electrification and hydrogen. In the Economic Presentation, the environmental category has been redacted. Whereas in the Alternatives Presentation, this column is noted as “pending environmental study impact results.” This seems to indicate that the criteria analysis in the Alternative Presentation draws from the body of the other studies. It is troubling then that SoCalGas has elected to not provide any further details for the economic analysis for electrification than what has already been filtered into Alternatives Presentation. This again raises questions regarding the validity and transparency with which SoCalGas is performing these preliminary studies. CBE requests that the full and complete economic analysis for electrification be released.

IV. Pipeline Sizing and Design Criteria: Preliminary Data and Findings

The Pipeline Sizing and Design Criteria: Preliminary Data and Findings Presentation (“Design Presentation”), like other presentations provided by SoCalGas provides no data, references or analysis for the findings presented within. Which is particularly concerning because the “pipeline system” shown on slide nine provides an array of not previously identified pipeline routing scenarios that could connect the San Joaquin Valley, Blythe, and Lancaster with 578 miles of pipeline. Further concerning, slide eleven identifies significant storage areas in Utah, Nevada, New Mexico, and Arizona, and despite slide ten stating that “Angeles Link is proposed to be an intrastate system... within Central and Southern California” it goes on to state that these areas were evaluated for “potential future market conditions.” CBE strongly believes that in order to avoid perpetuating the impacts of gas infrastructure on environmental justice communities and limit the impacts of infrastructure development, operations and decommissioning, any form of the Angeles Link Project must be limited in size and scope.¹⁰ The Design Presentations conflicting statements regarding the scope of the Angeles Link project raises significant concern regarding the intended scale of the project, and the transparency with which SoCalGas is discussing their intent to expand the project beyond what has been examined in the CPUC Decision.

Further concerning, Footnote 2 on slide 9 states that “Blythe scenarios were not carried through for detailed modeling.” Despite Blythe having been named in the Preliminary

¹⁰ See CBE et al., Environmental Justice Position on Green Hydrogen in California, [*Equity Principles for Hydrogen*](#), at 28 (2023).

Routing/Configuration Analysis, Including Right-of-way and Franchise: Preliminary Data and Findings Presentation released on April 14, 2024. CBE requests that SoCalGas clarify why the Lancaster and San Joaquin Valley routes were carried through and the Blythe scenarios were not.

The Design Presentation states that depleted oil and gas fields are promising candidates for local underground hydrogen storage. The use of existing gas infrastructure is deeply concerning to CBE because it poses particular risk to fence line environmental justice communities. CBE firmly believes that hydrogen should not be transported, stored, or blended into existing gas pipelines or storage containers. The Design Presentation makes no indication that the concerns of environmental justice communities near these depleted oil and gas fields have been consulted or considered in the Design study underlying the presentation or elsewhere. It is essential that SoCalGas avoid perpetuating the impacts of gas infrastructure on environmental justice communities. SoCalGas cannot begin to do so until they begin to address how they are considering historic harms of gas infrastructure in project communities and obtain meaningful consent with fence line, impacted communities.

Further, the Design Presentation states that SoCalGas facilities are not currently being considered as storage options for Angeles Link because “they are located within the study area.” It is unclear what this means, CBE requests that SoCalGas state clearly what the study indicated concerning SoCalGas facilities based on the confidence in geologic elements adequacy scale used throughout the Design Presentation. Further, CBE requests that more localized maps of the Los Angeles basin be provided. The sole map provided in the Design Presentation shows a geographic area that includes almost the entire length of California, and well into Utah, and Arizona making it difficult to examine the proposed storage options in Southern California where SoCalGas has highlighted potential pipeline routes.

Concerningly, the Design Presentation indicates that “safety considerations, pressures, and maintenance operations associated with design’ are addressed in the Plan for Applicable Safety Requirements.” However, the Preliminary Data and Findings: Plan for Applicable Safety Requirements Presentation provided on April 14, 2024 did not indicate any kind of risk analysis, or mention the major safety considerations of leakage, exposure, flammability, explosion, and end-use related health risks.¹¹ In fact, the Plan for Applicable Safety Requirements Presentation did not mention storage, pipeline sizing, or pipeline siting at all.

As reiterated throughout this letter, and in CBOSG meetings, these presentations and SoCalGas’s stakeholder engagement methodologies have raised serious concerns regarding transparency. The vague language regarding stakeholder engagement and actions taken on slide three of the Design Presentation does not address the serious concerns regarding data transparency, and community engagement that have been repeatedly raised by CBE and other community groups.

¹¹ See CBE Letter Re: *Feedback for Southern California Gas Company on Preliminary Findings Presentations* dated May 3, 2024.

Conclusion

CBE appreciates the opportunity to provide feedback on these matters. However, neither the format nor minimal substantive information allows CBE, or other interested stakeholders, to understand the many necessary studies SoCalGas must undertake if it intends to move forward the Angeles Link project.

Respectfully Submitted.

Lauren Gallagher
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Exhibit Y

June 25, 2024

Southern California Gas Company
555 West Fifth Street,
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Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com.

Feedback for Southern California Gas Company on Environmental & Environmental Social Justice Analysis Provided on June 11, 2024

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Environmental & Environmental Social Justice Analysis: Preliminary Data and Findings presentation (Environmental Presentation).

These comments specifically pertain only to the preliminary findings presented in the abbreviated presentation provided on June 11, 2024. Per SoCalGas's representations at the April 23, 2024 joint PAG and CBOSG meeting, CBE expects that a separate, complete draft of the data, analysis, and findings will be released. This preliminary presentation lacks basic data, let alone the analysis parties need to provide feedback, and these comments cannot and do not comprise the entire scope of feedback from CBE on any of the topics presented. Failing to provide data does not comply with part seven of the CPUC Decision 22-12-055, which requires SoCalGas to "make the data, findings, and results of Phase One feasibility studies...available to the public and not redacted unless SoCalGas is granted confidentiality of data."¹ The CPUC Decision emphasized the importance of stakeholder engagement to identify potential impacts of the project on disadvantaged and environmental justice communities.² Meaningful engagement is impossible without the facts on which findings or conclusions are based. To foster meaningful community feedback at the upcoming environmental justice focused July workshops, CBE requests that the Environmental Draft Report, the Environmental Social Justice Plan, and related materials are released at least a week in advance of the July workshop meetings in order to provide sufficient time for review.

As previously raised in CBE's May 3, 2024, and May 21, 2024 feedback letters, in one-on-one meetings with SoCalGas staff, and in stakeholder meetings it is deeply concerning that these preliminary presentations are labeled "data and findings." All the presentations provided thus far contain no data or related analysis to support any findings they may be summarizing. Overall, the presentations are more like public relations materials, which the PUC prohibited SoCalGas from promulgating in this process, than feasibility studies.³

¹ CPUC Decision, Order No. 7 pg. 77.

² CPUC Decision, pg. 80. See also pg. 58 "Stakeholder engagement, including those from CBOs, ESJ groups, and disadvantaged communities (DAC) groups, are important to the planning process."

³ CPUC Decision D.22-12-055 (hereinafter CPUC Decision), pg. 38.

CBE also reiterates concerns regarding the timeline for feedback demanded by SoCalGas. During the 9-day feedback period for the Environmental Presentation (accounting for Juneteenth, a federal holiday) there were two concurrent feedback periods for the lengthy Hydrogen Leakage Assessment Draft Report, and Plan for Applicable Safety Requirements Draft Report. This is deeply concerning because these reports require substantial time and effort to review and respond to.

I. Environmental Review Concerns

The lack of data and analysis in the Environmental Presentation precludes us from providing substantive feedback. CBE appreciates that a more substantive CEQA and NEPA environmental review process is planned for later in phase 2 but questions whether this pared down analysis is sufficient to provide a basis for determining if the project should continue.

Further, CBE questions the blanket application of the geographic barrier of one hundred feet on either side of the corridor for all the analyzed topic areas. In particular, the 200-foot corridor is not likely to provide an adequate basis for analysis in the noted topic areas of air quality, greenhouse gas emissions, hydrology, and water quality.

II. Environmental Social Justice

CBE requests that SoCalGas promptly post higher quality, individual PDF files of the ESJ maps provided in the Environmental Presentation. Further, to facilitate meaningful discussion at the July workshops, CBE requests that SoCalGas publish maps that break up the larger map of Southern California into more distinct regions, so that impacted communities along the proposed pipeline can be better identified.

The lack of data and analysis provided to support the purported findings in the Environmental Presentation is unacceptable. For example, slide 22 of the Environmental Presentation, titled “Preliminary Findings Routing and ESJ,” states as a finding that “Angeles Link has the potential to reduce greenhouse gas emissions, improve air quality, create union jobs, grow small and diverse businesses, and generate millions of dollars in community benefits.” No support has been provided for the five distinct and significant findings lauded in this bullet point, and it is concerning that these statements seem to be drawn directly from SoCalGas’ Angeles Link project (ALP) promotional materials. As discussed by CBE and several other parties, any impacts of the ALP in these areas depend heavily on project design, and, in many cases, significant negative impacts are expected. While the ALP has the potential to impact the abovementioned areas, listing potential benefits in a vacuum, without both balancing perspectives and supporting these conclusions with definite evidence is unproductive at best.

III. Commitment to Green Hydrogen

An essential assumption missing from the Environmental Presentation’s environmental and environmental social justice assumptions and introductory analysis is whether and how SoCalGas has committed to supplying green hydrogen.

SoCalGas’s own promotional materials for the project state that the pipeline will exclusively supply green hydrogen to hard-to-electrify sources.⁴ However, when pushed to define the extent of SoCalGas’s commitment to transporting only green hydrogen, SoCalGas has outright refused to commit even to compliance

⁴ See How does it work? Tab on SoCalGas, Angeles Link homepage at <https://www.socalgas.com/sustainability/hydrogen/angeles-link>

with the “three pillars of hydrogen.”⁵ In SoCalGas’s May 6, 2024 letter to Environmental Justice Partners, SoCalGas states only that “SoCalGas supports clean renewable hydrogen production from non-fossil feedstocks” in compliance with the PUC’s memorandum authorization requiring that SoCalGas analyze only the feasibility of hydrogen transport that does not use fossil fuels in its production process.⁶ This statement and others made by SoCalGas neither defines, nor commits to limiting transported hydrogen to green hydrogen that is produced by means of electrolysis using surplus water and additional renewable electricity.

As a hydrogen transportation pipeline in this early phase in development of a hydrogen market, the ALP is likely to have a relational impact on production sources, siting, and development. If SoCalGas is truly committed to their vision of green hydrogen and decarbonization in line with the Equity Principles for Hydrogen, SoCalGas must commit to a definition of green hydrogen that constitutes truly green hydrogen. Doing so is an essential part of providing robust and complete feasibility studies. Committing to the role of transportation only does not absolve SoCalGas of the responsibility of clearly rejecting production of hydrogen that contributes to worsening air quality or climate pollution and damages the supply of scarce water resources in already water strapped communities.

IV. Conclusion

CBE appreciates the opportunity to provide feedback on these matters. However, as emphasized in our prior feedback, neither the format nor minimal substantive information provided in the preliminary findings Environmental Presentation allows CBE, or other interested stakeholders, to understand the many necessary studies SoCalGas must undertake if it intends to move the ALP forward.

Respectfully Submitted.

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Angeles Link PAG Service List

⁵ See Rachel Fakhry, New Analysis: The 3 Pillars Will Support Large Hydrogen Deployment, June 20, 2023, NRDC, <https://www.nrdc.org/bio/rachel-fakhry/new-analysis-3-pillars-will-support-large-hydrogen-deployment>.

⁶ Q4 2023 Quarterly Report Appendices, released May 15, 2024, p. 208.

Exhibit Z

June 26, 2024

Southern California Gas Company
555 West Fifth Street,
Los Angeles, CA 90013



Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com

Feedback for Southern California Gas Company on Hydrogen Leakage Assessment Draft Report

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Hydrogen Leakage Assessment Draft Report (the “Report”) provided on May 29, 2024. This letter discusses serious oversights and omissions which distort the Report’s conclusions and corrode its value as a feasibility assessment document. CPUC Decision 22-12-055 emphasizes the importance of stakeholder engagement. Meaningful engagement is impossible where key data, studies, and environmental risk are not included in project study documents and information is presented in a misleading manner. Particularly, the Report:

- I. Improperly Excludes Leakage from Delivery, End-uses, and Large Leakage Events
- II. Draws Unsubstantiated and Misleading Improper Assumptions and Conclusions
- III. Draws Unreasonably Favorable Conclusions in the Absence of Adequate Data

I. The Report Improperly Excludes Leakage from Delivery, End-uses, and Large Leakage Events

The study of hydrogen leakage is critical to understanding climate and environmental impacts of the Angeles Link Project (ALP), one of the core requirements of D.22-12-055. Hydrogen is an indirect greenhouse gas; its presence in the atmosphere increases the concentration of climate warming air pollution such as methane and stratospheric water vapor. Several studies, including some cited in the Report explain that quantifying total, “well-to-gate” hydrogen leakage is a prerequisite of understanding hydrogen’s climate impacts. At present, the draft Report omits or appears to omit several sources of hydrogen leakage, artificially driving down leakage estimates and undermining the reliability of its results. CBE understands that ALP Phase 1 reports are preliminary in nature, however that does not excuse the lack of data and analysis SoCalGas can and should include. Critically, the Report does not examine leakage from end-uses, fails to clearly examine leakage from delivery or supply of hydrogen (i.e. connection

between the ALP terminus and the end-user), and completely excludes large scale leakage events.

The Report's failure to examine hydrogen emissions from delivery and end-use is not excusable. Not only do studies on hydrogen end-use leakage rates exist, but several are cited in the Report. Both Cooper Jasmin, Luke Dubey, Semra Bakkaloglu, Adam Hawkes, as well as Esquivel-Elizondo, Sofia, et al., examine end-uses. In fact, SoCalGas itself is, concurrently with the ALP, studying hydrogen end-uses at California ratepayer expense in the hydrogen blending proceeding (Application 22-09-006). Not only does SoCalGas have data available to examine these emissions, but their existing demand study also cited in the Report breaks down estimated hydrogen demand of the ALP by end-use. Despite this, the Report confusingly states that end-use is "out of scope for this assessment."

The Report also does not address, or even mention, large-scale leakage, such as leakage from catastrophic events or undetected equipment failures. While such events can be difficult to quantify, their public health, and climate impacts cannot be ignored. The Report must, at minimum, look at this risk, identify risk factors and where they fall across a hydrogen infrastructure network.

II. The Report Draws Unsubstantiated and Misleading Improper Assumptions and Conclusions

Feasibility study results must be presented in clear and unambiguous terms to ensure that they are accessible to participants and compliant with D. 22-12-055's prohibition against marketing. To foster meaningful conversations, as SoCalGas has stated is their goal with ALP stakeholder engagement, data examined in reports should be accurately and clearly stated. The Report falls short in this way at several points. Specifically, the Report truncates national methane leakage estimates, relies on data which assumes flaring is 100% efficient in mitigating hydrogen emissions, and mischaracterizes their responsibility to mitigate leakage.

When examining feasibility, it is critical that all parties can examine the data available. Unfortunately, on page 16 the Report, SoCalGas paraphrases another study, which cites a U.S. gas infrastructure methane leakage rate of 2%, rather than the true number in the cited study which is 2.3%.¹ With a range of even higher U.S. estimates, it is misleading to include only a lowest estimate that explicitly omits some sources of leakage.

The Report also severely mischaracterizes the relationship between regulators and SoCalGas.

¹ Alvarez, et al., Science (2018); <https://doi.org/10.1126/science.aar7204>.

Regulations can impact the potential for leakage via design requirements and mitigation measures. The inclusion of hydrogen pipelines within PHMSA's proposed LDAR regulation may increase the speed at which leaks are detected and repaired, and minimize the total volume of gas leaked, by requiring regular leak detection monitoring and by providing structured requirements around how quickly repairs are required.

While regulations are critical to setting legal minimum safety standards, which can impact leakage, nobody other than SoCalGas is in a better position to undertake safety and leak preventions measures. It is entirely the gas company's responsibility to determine what measures, beyond the legal minimum, are necessary and the negative impacts which stem from lack of action fall on SoCalGas' shoulders.

Ensuring environmental justice involves safeguarding everyone's right to have and access a clean, healthy, and safe environment by taking affirmative steps beyond the bare minimum. Should SoCalGas wish to take environmental justice seriously, it should consider how the toxic legacy of the fossil fuel industry which has and does disproportionately impacted poor communities and communities of color, Los Angeles' history of redlining, and the fossil fuel industry's history of exploiting tribal lands, in addition to public health and safety risks posed by gas infrastructure leakage.

III. The Report Draws Unreasonably Favorable Conclusions in the Absence of Adequate Data

There is no commercially accessible technology for measuring and mitigating hydrogen leakage for many links in the "hydrogen value chain" according to research cited in the Report.² This unacknowledged shortcoming leads to a critical lack of direct hydrogen leakage data. The Report's failure to discuss pipeline conditions, leakage data, or lessons learned from the 1600 miles of existing hydrogen pipeline within the country further emphasizes its glaring lack of data. Concerningly, the Report instead relies substantially on non-hydrogen leakage and emissions data and ignores research showing that hydrogen has the potential to leak 1.3-4.6 times more than methane.³

² National Petroleum Council, April 2024, "Harnessing Hydrogen: A Key Element of the U.S. Energy Future, Report Summary", <https://harnessinghydrogen.npc.org/downloads.php>; M. Penchev et al.

³ Makhijani, Arjun & Hersbach Thom, "Hydrogen: What Good is it? A technical exploration of the potential of hydrogen to contribute to a decarbonized energy system" Institute for Energy and Environmental Research, January 2024, <https://ieer.org/wp/wp-content/uploads/2024/06/What-Good-Is-Hydrogen-IEER-report-for-Just-Solutions-January-2024.pdf>; National Petroleum Council, April 2024, "Harnessing Hydrogen: A Key Element of the U.S. Energy Future, Chapter 1: Role of Low Carbon Intensity Hydrogen in the United States"; "Hydrogen Blending Impacts Study Final Report", California Public Utilities Commission, Agreement Number 19NS1662, 2022, <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M493/K760/493760600.PDF>.

The absence of adequate existing leakage measurement and mitigation technology also throws into doubt the Report's wildly speculative leakage reduction potential figures. These figures, which rely on natural gas as a proxy, do not account for the difference in leakage potential between hydrogen and methane. Further, the analysis does not discuss leakage mitigation cost, availability, or even feasibility of hydrogen specific mitigation technology. The U.S. EPA's new methane leakage rule aims to reduce methane emissions by 30% by 2030 and will cost several billion dollars. Diminishing returns mean that as reductions approach 100% every incremental gain will be costlier and more difficult. In light of this and the Report's lack of supportive data and analysis, it is entirely unclear how SoCalGas came to their conclusions regarding leakage reduction. While it would be reassuring to believe the Report's optimistic outlook for leakage reductions, the figures presented are unsubstantiated, and extraordinarily misleading.

Sincerely,

Theo Caretto
Lauren Gallagher

Communities for a Better Environment

CC:
Emily Grant, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link service list

Exhibit AA

July 19, 2024

Southern California Gas Company
555 West Fifth Street
Los Angeles, CA 90013



Submitted via email to ALP1_Study_PAG_Feedback@insigniaenv.com

Feedback for Southern California Gas Company on the Plan for Applicable Safety Requirements Draft Report

Communities for a Better Environment (CBE) submits this letter of feedback to Southern California Gas Company (SoCalGas) on the Plan for Applicable Safety Requirements Draft Report (the “Report”) provided on June 21, 2024. This letter discusses serious oversights and omissions that the final report must remedy. Although SoCalGas has repeatedly assured PAG and CBOSG stakeholders that draft reports would address shortcomings and gaps in earlier “preliminary data and findings” slide decks, this report still lacks fair discussion of several important issues surrounding hydrogen safety. California Public Utilities Commission (CPUC) Decision 22-12-055 emphasizes the importance of stakeholder engagement. Meaningful engagement is impeded where key information is either omitted or presented in a misleading manner. Particularly, the Report:

- I. Glosses Over Unknowns about Hydrogen
- II. Draws Faulty Conclusions about Angeles Link’s Safety
- III. Overly Relies on Safety Measures for Existing Natural Gas Infrastructure as a Proxy for Safety of New Hydrogen Pipeline Infrastructure
- IV. Omits Key Details of Hydrogen Related Accidents
- V. Mischaracterizes SoCalGas’s Safety Management System

I. The Report Glosses Over Unknowns about Hydrogen and Fails to Discuss International Hydrogen Safety Standards Apart from Vaguely Referencing Them

The Report is characterized by an absence of clear hydrogen safety data and an insistence by the SoCalGas team that safety concerns are well in hand. Nowhere does the Report adequately address that the Angeles Link Project (ALP) is a first of its kind project without real world study to inform assumptions. The serious safety concerns associated with carrying unprecedented volumes of hydrogen gas along key infrastructure corridors and past sensitive receptors require substantially more precaution than the Report suggests. Furthermore, the ALP would bring hydrogen into communities like Wilmington and Pacoima, long plagued by

hydrogen and methane system failures. The explosions, flares, and leaks those and many other communities experience are a strong reminder that the status quo does not provide adequate safety for many polluted neighborhoods. Hydrogen unknowns cannot be brushed aside.

The Report glosses over unknowns about hydrogen, including identification of a specific odorant for hydrogen gas to be used in Angeles Link. The Report notes that like natural gas, hydrogen is odorless and that mercaptans are used to odorize natural gas. The Report states that assessing and finding an appropriate odorant for hydrogen “to indicate the presence of hydrogen is an important consideration in the development of applicable safety protocols.” We agree that odorizing agents are important for the public and emergency responders to detect the presence of a hydrogen gas leak that could threaten peoples’ lives. But the Report also concedes: “Industry research on the implications of odorant in a pure hydrogen system is ongoing and should be monitored during the development of Angeles Link to identify industry best practices.” CBE finds it alarming that SoCalGas has not identified or included in the Report even one specific odorant appropriate for the safe transportation of hydrogen gas. To ensure the safety of our community members, it is vital that SoCalGas address this major unknown about hydrogen.

Further, the Report fails to discuss important international safety standards for hydrogen in any detail. The Report mentions organizations with experience in hydrogen safety education and training, such as the American Institute of Chemical Engineers (AIChE) and the International Association for Hydrogen Safety (HySafe). It also notes: “Various resources for education and training are available for both pipeline operators, emergency and first responders, and the public.” But rather than provide specific examples of safety standards or in-depth discussion of them, the Report only describes what these organizations do in very general terms and provides URLs for them. CBE thus believes the Report lacks necessary discussion of existing hydrogen safety standards.

II. The Report Fails to Commit to Maintaining Safety Teams for Hydrogen Distinct from Those for Natural Gas, Draws Faulty Conclusions about Angeles Link’s Safety Despite the Lack of Hydrogen-Specific Federal and State Laws and Regulations, and Fails to Examine Safety Measures of Any Specific, Existing Hydrogen Pipelines in the United States

In both the Report’s Executive Summary and Conclusion sections, SoCalGas states it might consider implementing separate safety teams for the Angeles Link hydrogen system and existing natural gas network. Due to the differences between hydrogen and natural gas and heightened risk of hydrogen accidents, CBE contends that SoCalGas should definitively commit to maintaining distinct gas controllers and emergency response teams for the Angeles Link pipeline system.

The Report acknowledges that federal minimum safety standards for gas pipelines “do not specify differences and considerations for hydrogen specifically versus natural gas (and other gases).” Given this lack of differentiation in federal law for hydrogen despite its numerous differences from natural gas, CBE finds it troubling that SoCalGas makes a “Key Finding” promising that some combination of existing regulations and industry standards (only some of which may be hydrogen-specific) “will help promote safety.” To its credit, the Report discusses hydrogen-specific standards like American Society of Mechanical Engineers (ASME) B31.12 and National Fire Protection Association (NFPA) 2. Yet, the Report admits these standards “are not specifically incorporated into” Title 49 Code of Federal Regulations (CFR) Part 192 or CPUC General Order (GO) 112-F” by direct reference.” CBE’s communities have not been adequately protected by industry best practices for decades, even when federal and state laws and regulations directly apply them. Because these hydrogen-specific standards (CFR Part 192 and CPUC GO 112-F) are not directly incorporated into federal and state laws or regulations, only best practices provide for this necessary, but insufficient layer of protection.

Furthermore, SoCalGas makes multiple references in the Report to the roughly 1,600 miles of hydrogen pipelines that already exist and currently operate in the U.S. The Report claims the “industry experience” derived from operation of these pipelines “makes the properties and risks associated with hydrogen well known.” Even if self-regulation by “industry standards” were sufficient to ensure safety, the Report completely fails to examine the supposed safety standards of the existing 1,600 miles of hydrogen pipelines because it does not discuss *any* specific, existing hydrogen pipeline anywhere in the country. With the sparse level of detail provided in the Report, SoCalGas’s conclusions about hydrogen safety are not substantiated.

III. The Report Overly Relies on Safety Measures for Existing Natural Gas Infrastructure as a Proxy for Safety of New Hydrogen Pipeline Infrastructure

CBE appreciates the inclusion of the table comparing the properties of hydrogen and natural gas. It is important that the Report describes hydrogen’s wider range of flammability and 500 °F higher flame temperature than natural gas, “which requires considerations for proper materials and mitigating potential increases in oxides of nitrogen (NO_x) emissions.” However, we disagree with SoCalGas’s statements minimizing the differences of hydrogen and natural gas and concluding that simply modifying existing safety practices for natural gas will be sufficient to address the safety risks associated with hydrogen.¹ After all, SoCalGas’s review of approximately 1,600 of its own existing specifications, standards, and procedures (SSPs) revealed that roughly 21% of SoCalGas’s existing SSPs do not apply to hydrogen, 34% of current SSPs apply to hydrogen but may require modifications, and 15% of existing SSPs “may

¹ Report at 21 (“In summary, there are many similarities between hydrogen and natural gas operations and gas handling. While there are some differences in their properties and characteristics, a variety of existing practices can be modified to manage these differences.”).

require a new SSP specific to hydrogen service.” Therefore, by SoCalGas’ own count, 70% of current SSPs either do not apply or need to be updated for hydrogen, and only 30% are applicable to hydrogen service but would not require changes. CBE believes it is deceptive for SoCalGas to gloss over these significant differences between hydrogen and natural gas services by relying on its existing natural gas network infrastructure and current SSPs.

IV. The Report Fails to Include Examples of Hydrogen Related Accidents Involving Serious Injuries or Fatalities and Includes Misleading Descriptions that Omit Key Details

The Report’s Lessons Learned cherry-picks less severe hydrogen incidents from the H2Tools.org database and excludes key details about more severe accidents, thereby failing to include accurate descriptions involving serious bodily injury or death. Although this section of the Report describes 11 hydrogen-related accidents between 1969 and 2019, none of them involved serious injuries or fatalities. Yet the Report contemplates the potential for serious bodily injuries and death since the term “Serious Injuries and Fatalities” and the corresponding abbreviation (“SIF”) are included in section 1.0 List of Abbreviations and Acronyms. In fact, only one incident description about an explosion in 1980 at a National Aeronautics and Space Administration (NASA) facility even mentions the word “injured.”² Although it is fortunate no one was injured by that explosion, that outcome was only possible because, as the Report itself acknowledges, nobody was present at the NASA facility when the explosion occurred. Further emphasizing the need for greater study, NASA facilities are regulated by the Federal Aviation Administration’s much stricter safety standards, in particular requiring physical separation requirements not mandated for standard gas transmission pipelines.³

To portray the risks of hydrogen more fairly, the Report should have included the following incident whose description is readily available in the H2Tools database. In a 1992 incident titled “Technician Fatally Burned When Leaking Hydrogen Ignites” in that database, experiments with hydrogen gas resulted in the death of a laboratory technician and serious injuries to three other individuals.⁴ Leaked hydrogen gas interacted with liquefied petroleum gas to ignite a flash fire that “engulfed the people in the room.”⁵ It appears that the hydrogen gas leaked into the laboratory via “a pump seal or pipe union.”⁶ This is an extremely serious hydrogen-related incident, which should have been included in the Report.

² Report at 52-53 (“Firefighters and emergency medical personnel were sent to the area to verify that no one was injured and to extinguish small residual fires.”).

³ 14 CFR § 420.

⁴ Hydrogen Tools, Laboratory Technician Fatally Burned When Leaking Hydrogen Ignites, <https://h2tools.org/lessons/laboratory-technician-fatally-burned-when-leaking-hydrogen-ignites> (last accessed July 19, 2024).

⁵ *Id.*

⁶ *Id.*

The Report also omits key details about some of the incidents it does partially describe. For example, regarding an accident from January 8, 2007, the Report by SoCalGas states (in its entirety) the following: “On Jan[.] 8, 2007, an explosion occurred during a delivery of compressed hydrogen gas at a coal fired power plant. Evidence pointed to the premature failure of a pressure relief device rupture disk, which had been repaired by the vendor six months before the explosion.” However, according to the H2Tools database incident description, the explosion “killed one person and injured 10 others.”⁷ The database adds further detail about the fatality: “The blast killed the delivery truck driver who was unloading compressed hydrogen gas.”⁸ Given that SoCalGas chose to include the January 2007 explosion event in the “Pressure Relief Device Incidents” section of the report, CBE finds it very troubling that SoCalGas either intentionally or negligently chose not to include any details about the fatality and serious injuries that occurred due to this incident. If the Report cannot directly confront the sort of incidents which impact CBE’s communities and many communities like them, it will struggle to identify solutions to such catastrophes.

V. The Report Misleadingly Characterizes SoCalGas’s Safety Management System as Strong Without Adequate Context

SoCalGas makes misleading statements about the maturity of its safety management system (SMS). The Report states that in 2021:

SoCalGas engaged the American Petroleum Institute to perform a maturity assessment of SoCalGas’s SMS. At that time, SoCalGas’s SMS scored a 3.06, which indicates SoCalGas’s SMS is “Implemented: Organizational structures are in place, processes are fully developed, and procedures and programs documented and functional.” Since that assessment, SoCalGas has and is implementing improvements to continue maturing its SMS.

And that:

SoCalGas is well positioned to build, operate, and maintain a clean renewable hydrogen pipeline system due to its long-standing experience operating and maintaining a highly developed gas transmission and distribution system, existing highly trained and qualified workforce, and comprehensive established integrity management and emergency response procedures.

⁷ Hydrogen Tools, Hydrogen Explosion at Coal-Fired Power Plant, <https://h2tools.org/lessons/hydrogen-explosion-coal-fired-power-plant> (last accessed July 19, 2024).

⁸ *Id.*

There is no question that the personnel and expertise devoted to maintaining the safety of SoCalGas' transmission pipelines are an integral part of any hydrogen safety system. The company itself, however, has many long strides to make with respect to safety and basic hydrogen learning before making such claims in its report. SoCalGas's score of 3.06 (on a 1 to 5 scale) net's it a "Conformance" ranking while scores of 4 to 5 indicate "Effectiveness."⁹ Adding the volatility of hydrogen along with the unknowns of untested safety equipment, the need for new safety procedures, and an outdated regulatory structure raises severe doubts about SoCalGas' ability to safely "build, operate, and maintain" the ALP.

VI. Conclusion

Due to the Report's omissions and misleading discussion outlined above, CBE strongly objects to SoCalGas's magical determination in the Report's conclusion section that: "[P]ipeline transportation of clean renewable hydrogen is feasible and can be safely achieved through compliance with Federal and State codes, standards, regulations, and procedures identified within this document."

Sincerely,

Jay Parepally
Theo Caretto

Communities for a Better Environment

CC:
Emily Grant, SoCalGas
Chester Britt, Arellano Associates
Alma Marquez, Lee Andrews Group
Angeles Link service list

⁹ Pipeline SMS, Resources: Pipeline SMS Maturity Model, April 15, 2018, <https://pipelinesms.org/pipeline-sms-maturity-model/> (last accessed July 19, 2024).

Exhibit BB



Angeles Link – Phase 1 Quarterly Report (Q2 2024)

For the period of April 1, 2024 through June 30, 2024

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Appendix 4 – Attendee List for PAG and CBOSG Meetings and Workshop (including those invited)



CBOSG April Invitee List		
Organization	First Name	Last Name
Protect Playa Now	Faith	Myhra
Protect Playa Now	Kevin	Weir
Ballona Wetland Institute	Marcia	Hanscom
Ballona Wetland Institute	Marcia	Hanscom
California Greenworks	Mike	Meador
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Vote Solar	Andrea	Leon-Grossmann
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Defend Ballona Wetlands	Robert Roy	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Go Green Initiative	Jill	Buck
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Nathan	Aranda
Communities for Responsible Community Development	Ricardo	Mendoza
Communities for Responsible Community Development	Kenta	Estrada-Darley
Watts/Century Latino Organization	Autumn	Ybarra
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews
Reimagine LA Foundation	Raul	Claros
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
LA Black Workers Center/Care at Work, UCLA Labor Center	Deja	Thomas
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Faith and Community Empowerment (FACE)	Hyepin	Im
YMCA of Greater Los Angeles	Gerry	Salcedo
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Olivia	Fike
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Los Angeles Indigenous People's Alliance	Luis R.	Pena

CBOSG April Invitee List		
Organization	First Name	Last Name
Los Angeles Indigenous People's Alliance	Jamie	Patino
California Native Vote Project	Rene	Williams
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero

4/23/24 CBOSG Angeles Link Joint Update Attendees

CBOSG			
Organization	First Name	Last Name	Zoom
Alma Family Services	Lourdes	Caracoza	X
Ballona Wetlands Institute	Marcia	Hanscom	X
Breathe Southern California	Marc	Carrel	X
California Greenworks	Michael	Berns	X
Coalition for Responsible Community Development	Ricardo	Mendoza	X
Coalition for Responsible Community Development	Kenta	Estrada-Darley	X
Communities for a Better Environment	Jay	Parepally	X
Communities for a Better Environment	Lauren	Gallagher	X
Defend Ballona Wetlands	Roy	van de Hoek	X
Food and Water Watch	Andrea	Vega	X
Go Green Initiative	Jill	Buck	X
Greater Zion Church Family	Michael	Fisher	X
Little Tokyo Community Council	Kisa	Ito	X
Physicians for Social Responsibility-LA	Alex	Jasset	X
Reimagine LA	Rashad	Rucker-Trapp	X
Soledad Enrichment Action	Enrique	Aranda	X
Southeast Rio Vista YMCA	Gerry	Salcedo	X
Southside Coalition of Community Health Centers	Andrea	Williams	X
Watts/Century Latino Organization	Autumn	Ybarra	X
Non CBOSG			
California Public Utilities Commission	Sasha	Cole	X
California Public Utilities Commission	Christopher	Arroyo	X
TOTAL CBOs			17

PAG April Invitee List

Organization	First name	Last name
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
Air Products	Vince	Wiraatmadja
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Sasha	Cole
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Public Utilities Commission	Benjamin	Tang
California Water Data Consortium	Deven	Upadhay
City of Burbank	Anthony	D'aquila
City of Long Beach - Long Beach Water	Diana	Tang
City of Long Beach - Utilities	Tony	Foster
City of Long Beach - Utilities	Dennis	Burke
City of Long Beach - Utilities	Heather	Hamilton
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Acti	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery

GoBiz	Deedee	Myers
Green Hydrogen Coalition	Nick	Connell
Green Hydrogen Coalition	Hope	Fasching
Green Hygroden Coalition	Sergio	Dueñas
Green Hygroden Coalition	Janice	Lin
Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
Independent Energy Producers Association*	Sara	Fitzsimon
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Los Angeles Department of Water and Power	Xinhe	Le
Los Angeles Department of Water and Power	Eric	Hill
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Pasadena Water & Power	Erik	Johnson
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Malinda	Dickenson
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Julia	Dowell
Sierra Club	Teresa	Cheng
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
South Coast AQMD	Vasileios	Papapostolou
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
Southern California Public Power Authority	Charles	Guss
The United Association	Aaron	Stockwell
UC Davis Insitutue of Transportation Studies	Lukas	Wernert
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer
University of CA Riverside	Arun	Raju

Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno
Utility Workers Union of America Local 132	Mike	Cormode

PAG/CBOSG Joint Update - April 23, 2024

PAG		
Organization	First name	Last name
Air Products	JP	Gunn
Bizfed	Sarah	Wiltfong
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Sasha	Cole
City of Burbank	Anthony	D'aquila
City of Long Beach - Utilities	Tony	Foster
City of Long Beach - Utilities	Dennis	Burke
City of Long Beach - Utilities	Heather	Hamilton
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Environmental Defense Fund	Joon Hun	Seong
Green Hydrogen Coalition	Janice	Lin
Harbor Trucking Association	Karla	Sanchez
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Jesse	Vismonte
Los Angeles Department of Water and Power	Xinhe	Le
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Pasadena Water & Power	Erik	Johnson
Port of Los Angeles	Mike	Galvin
Reimagine LA	Rashad	Rucker-Trapp
Sierra Club	Julia	Dowell
Sierra Club	Teresa	Cheng
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
Southern California Generation Coalition	Norman	Pedersen
Non PAG		
Arellano Associates	Chester	Britt
Arellano Associates	Stevie	Espinoza
Arellano Associates	Keven	Michele
Insignia Environmental	Armen	Keochekian
Insignia Environmental	Anniken	Lydon
Insignia Environmental	Julie	Roshala
Lee Andrews Group	Alma	Marquez
Lee Andrews Group	Antonia	Issaevitch
Lee Andrews Group	Alyssa	Martinez
SoCalGas	Emily	Grant
SoCalGas	Andy	Carrasco

SoCalGas
SoCalGas
SoCalGas
SoCalGas
SoCalGas

Frank	Lopez
Amy	Kitson
Jessica	Foley
Shirley	Arazi
Colby	Wells

CBOSG June 18th Q2 Invitee List		
Organization	First Name	Last Name
Protect Playa Now	Faith	Myhra
Protect Playa Now	Kevin	Weir
Ballona Wetland Institute	Marcia	Hanscom
Ballona Wetland Institute	Marcia	Hanscom
California Greenworks	Mike	Meador
California Greenworks	Jessy	Shelton
California Greenworks	Michael	Berns
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Ambar	Rivera
Communities for a Better Environment	Roselyn	Tovar
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Breathe Southern California	Marc	Carrel
Breathe Southern California	Tigran	Agdaian
Nature for All	Belen	Bernal
Nature for All	Steven	Ochoa
Climate Action Campaign	Ayn	Craciun
Climate Action Campaign	Lexi	Hernandez
Vote Solar	Andrea	Leon-Grossmann
Food and Water Watch	Andrea	Vega
Food and Water Watch	Chirag	Bhakta
Defend Ballona Wetlands	Robert Roy	van de Hoek
Defend Ballona Wetlands	Jackson	Garland
Physicians for Social Responsibility - Los Angeles	Alex	Jasset
Go Green Initiative	Jill	Buck
Chinatown Service Center	Daisy	Ma
Chinatown Service Center	Kerry	Situ
Soledad Enrichment Action	Enrique	Aranda
Soledad Enrichment Action	Nathan	Aranda
Communities for Responsible Community Development	Ricardo	Mendoza
Communities for Responsible Community Development	Kenta	Estrada-Darley
Watts/Century Latino Organization	Autumn	Ybarra
Little Tokyo Community Council	Kristin	Fukushima
Little Tokyo Community Council	Chris	Fukushima
Reimagine LA Foundation	Rashad	Trapp
Reimagine LA Foundation	Shawna	Andrews
Reimagine LA Foundation	Raul	Claros
Mexican American Opportunity Foundation	Ciriaco "Cid"	Pinedo
Watts Labor Community Action Committee	Timothy	Watkins
Watts Labor Community Action Committee	Thelmy	Alvarez
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
LA Black Workers Center/Care at Work, UCLA Labor Center	Deja	Thomas
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater
Alma Family Services	Lourdes	Caracoza
Alma Family Services	Aida	Vega
Alma Family Services	Diego	Rodriguez
Southside Coalition of Community Health Centers	Andrea	Williams
Southside Coalition of Community Health Centers	Lucy	Castro
Greater Zion Church Family	Michael	Fisher
Greater Zion Church Family	Danny	Harrison
Greater Zion Church Family	Aquyla	Walker
Faith and Community Empowerment (FACE)	Hyepin	Im
YMCA of Greater Los Angeles	Gerry	Salcedo
Parents, Educators/Teachers, and Students in Action (PESA)	Seymour	Amster
Parents, Educators/Teachers, and Students in Action (PESA)	Ella	Cavlan
Parents, Educators/Teachers, and Students in Action (PESA)	Olivia	Fike
Parents, Educators/Teachers, and Students in Action (PESA)	Araksya	Nordikyan
Los Angeles Indigenous People's Alliance	Luis R.	Pena

CBOSG June 18th Q2 Invitee List		
Organization	First Name	Last Name
Los Angeles Indigenous People's Alliance	Jamie	Patino
California Native Vote Project	Rene	Williams
Comunidades Indigenas en Liderazgo (CIELO)	Odilia	Romero

CBOSG June Q2 Meeting Attendees

CBOSG				
Organization	First Name	Last Name	In Person	Zoom
Ballona Wetlands Institute	Marcia	Hanscom	X	
California Greenworks	Michael	Berns	X	
Coalition for Responsible Community Development	Ricardo	Mendoza		X
Coalition for Responsible Community Development	Kenta	Estrada-Darley	X	
Defend Ballona Wetlands	Roy	van de Hoek	X	
Faith and Community Empowerment (FACE)	Hyepin	Im		X
Food and Water Watch	Andrea	Vega	X	
Go Green Initiative	Jill	Buck		X
Little Tokyo Community Council	Kristin	Fukushima		X
Watts Labor Community Action Committee	Ava	Post		X
Reimagine LA	Rashad	Rucker-Trapp	X	
Soledad Enrichment Action	Enrique	Aranda		X
Southeast Rio Vista YMCA	Gerry	Salcedo		X
Southside Coalition of Community Health Centers	Andrea	Williams		X
Watts Labor Community Action Committee	Thelmy	Alvarez		X
Protect Playa Now	Faith	Myhra	X	
Communities for Better Environment	Jay	Parpelly		X
Communities for Better Environment	Roslyn	Tovar		X
Communities for Better Environment	Lauren	Gallagher		X
Breathe Southern California	Tigran	Agdaian		X
Alma Family Services	Lourdes	Caracoza		X
LA Black Workers Center/Care at Work, UCLA Labor Center	Andrea	Slater		X
Non CBOSG				
California Public Utilities Commission	Christopher	Arroyo		X
Insignia Environmental	Armen	Keochekian	X	
Insignia Environmental	Julie	Roshala	X	
Insignia Environmental	Anniken	Lydon		X
ARCHES	Joy	Langford	X	
New Ways to Work	Robert	Sainz	X	
Los Angeles World Airports Capital Improvement Program	Veronica	Soto	X	
TOTAL CBOs				18

PAG June Invitee List

Organization	First name	Last name
Agricultural Energy Consumers Association	Michael	Boccardo
Air Products	JP	Gunn
Air Products	Lorraine	Paskett
Air Products	Seth	Hilton
Air Products	Miles	Heller
Air Products	Vince	Wiraatmadja
ARCHES	Angelina	Galiteva
ARCHES	Tyson	Eckerle
Bizfed	Sarah	Wiltfong
Bloom Energy	Christina	Tan
California Air Resources Board	Steve	Cliff
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Manufacturers and Technology Association	Lance	Hastings
California Manufacturers and Technology Association	Robert	Spiegel
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Christopher	Myers
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Jack	Chang
California Public Utilities Commission	Sasha	Cole
California Public Utilities Commission	Nick	Zanjani
California Public Utilities Commission	Nathaniel	Skinner
California Public Utilities Commission	Kaj	Peterson
California Public Utilities Commission	Benjamin	Tang
California Water Data Consortium	Deven	Upadhyay
City of Burbank	Anthony	D'aquila
City of Long Beach - Long Beach Water	Diana	Tang
City of Long Beach - Utilities	Tony	Foster
City of Long Beach - Utilities	Dennis	Burke
City of Long Beach - Utilities	Heather	Hamilton
City of Long Beach*	Mario	Cordero
Clean Energy	Nora	Sheriff
Clean Energy Strategies representing the Utility Consumers' Acti	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Shara	Burwell
Communities for a Better Environment	Roberto	Cabrales
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Earth Justice	Sara	Gersen
Energy Independence Now	Brian	Goldstein
Environmental Defense Fund	Joon Hun	Seong
Environmental Defense Fund	Michael	Colvin
Environmental Justice League	Russell	Lowery

Fernandeno Tataviam Band of Mission Indians	Ray	Salas
GoBiz	Deedee	Myers
Green Hydrogen Coalition	Hope	Fasching
Green Hygroden Coalition	Sergio	Dueñas
Green Hydrogen Coalition	Janice	Lin
Harbor Trucking Association	Karla	Sanchez
Harbor Trucking Association	Matthew	Schrap
Independent Energy Producers Association*	Jan	Smutny Jones
Independent Energy Producers Association*	Sara	Fitzsimon
International Longshore and Warehouse Union Local 13	Sal	DiConstanzo
International Longshore and Warehouse Union Local 13	Mark	Jurisc
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
LAWDP	Joseph	Ortiz
Local Union 250	Nathaniel	Williams
Local Union 250	Hector	Carbajal
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Marty	Adams
Los Angeles Department of Water and Power	Paul	Habib
Los Angeles Department of Water and Power	Nermina	Rucic
Los Angeles Department of Water and Power	Jesse	Vismonte
Los Angeles Department of Water and Power	Xinhe	Le
Los Angeles Department of Water and Power	Eric	Hill
Metropolitan Water District	Deven	Upadhyay
Natural Resources Defense Council	Pete	Budden
Pasadena Water & Power	Erik	Johnson
Port of Los Angeles	Mike	Galvin
Port of Los Angeles	Tim	DeMoss
Protect our Communities Foundation	Malinda	Dickenson
Reimagine LA	Rashad	Rucker-Trapp
Reimagine LA	Raul	Claros
Sierra Club	Monica	Embrey
Sierra Club	Julia	Dowell
Sierra Club	Teresa	Cheng
South Coast AQMD	Maryam	Hajbabaei
South Coast AQMD	Sam	Cao
South Coast AQMD	Aaron	Katzenstein
South Coast AQMD	Vasileios	Papapostolou
Southern CA Water Coalition	Charley	Wilson
Southern California Association of Governments	Kome	Ajise
Southern California Generation Coalition	Norman	Pedersen
Southern California Leadership Council	Richard	Lambros
Southern California Pipe Trades	Rodney	Cobos
Southern California Public Power Authority	Charles	Guss
The United Association	Aaron	Stockwell
UC Davis Insitute of Transportation Studies	Lukas	Wernert
UC Davis Sustainable Transportation Energy Pathways	Lew	Fulton
UCI Advanced Power and Energy Program	Jack	Brouwer

University of CA Riverside	Arun	Raju
UC Davis Sustainable Transportation Energy Pathways	Stefania	Mitova
Utility Reform Network (TURN)	Marcel	Hawiger
Utility Reform Network (TURN)	Marna	Paintsil Anning
Utility Workers Union of America 483	Ernest	Shaw
Utility Workers Union of America 483	Robin	Downs
Utility Workers Union of America 483	Anthony	Flores
Utility Workers Union of America Local 132	Joe	Moreno

PAG Q2 Meeting - June 21, 2024

PAG		
Organization	First name	Last name
Air Products	JP	Gunn
Air Products	Miles	Heller
Bizfed	Sarah	Wiltfong
California Energy Commission	Rizaldo	Aldas
California Hydrogen Business Council	Katrina	Fritz
California Public Utilities Commission	Arthur (Iain)	Fisher
California Public Utilities Commission	Christopher	Arroyo
California Public Utilities Commission	Matthew	Taul
California Public Utilities Commission	Benjamin	Tang
City of Burbank	Anthony	D'aquila
City of Long Beach - Utilities	Heather	Hamilton
Clean Energy Strategies representing the Utility Consumers' Action Network	Tyson	Siegele
Communities for a Better Environment	Theo	Caretto
Communities for a Better Environment	Jay	Parepally
Communities for a Better Environment	Lauren	Gallagher
Environmental Defense Fund	Joon Hun	Seong
Green Hydrogen Coalition	Janice	Lin
International Longshore and Warehouse Union Local 13	Sophia	Dubrovich
LAWDP	Joseph	Ortiz
Los Angeles Department of Water and Power	Aaron	Guthrey
Los Angeles Department of Water and Power	Jesse	Vismonte
Natural Resources Defense Council	Pete	Budden
Port of Los Angeles	Mike	Galvin
Sierra Club	Julia	Dowell
South Coast AQMD	Sam	Cao
Southern California Generation Coalition	Norman	Pedersen
UCI Advanced Power and Energy Program	Jack	Brouwer
UC Davis Sustainable Transportation Energy Pathways	Stefania	Mitova
Utility Workers Union of America 483	Ernest	Shaw
Non PAG		
Arellano Associates*	Chester	Britt
Arellano Associates*	Stevie	Espinoza
Arellano Associates*	Keven	Michele
Insignia Environmental	Armen	Keochekian
Insignia Environmental	Anniken	Lydon
Insignia Environmental	Julie	Roshala
Lee Andrews Group*	Alma	Marquez
Lee Andrews Group*	Keshanna	Wiley
SoCalGas*	Emily	Grant
SoCalGas	Andy	Carrasco
SoCalGas*	Frank	Lopez
SoCalGas*	Amy	Kitson

SoCalGas*
SoCalGas*
SoCalGas*
SoCalGas*
SoCalGas*

Jessica	Foley
Shirley	Arazi
Yuri	Freedman
Neil	Navin
Chanice	Allen

Exhibit CC



Angeles Link – Phase 1 Quarterly Report (Q2 2024)

For the period of April 1, 2024 through June 30, 2024

August 2024



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I. BACKGROUND

On December 15, 2022, the California Public Utilities Commission (CPUC) adopted Decision (D.) 22-12-055 (Decision) authorizing the establishment of SoCalGas's Angeles Link Memorandum Account (Memorandum Account) to track costs for advancing the first phase of Angeles Link. SoCalGas established the Memorandum Account on December 21, 2022.

The objective of Angeles Link is to develop a non-discriminatory pipeline system that is dedicated to public use to transport clean renewable hydrogen¹ from regional third-party production and storage sites to end users in Central and Southern California, including the Los Angeles Basin. The CPUC recognized clean renewable hydrogen "has the potential to decarbonize the state and the Los Angeles Basin's energy future and bring economic opportunities and new jobs to the region."²

To increase transparency and gain valuable feedback, SoCalGas proposed in its Phase 1 Application for Angeles Link to submit interim reports to the CPUC and the public regarding status and updates. Pursuant to Ordering Paragraph (OP) 3(h) of the Decision,³ SoCalGas hereby submits this Quarterly Report, for the period April 1, 2024 through June 30, 2024 (Q2-2024). In compliance with the Decision, this report is also served on the service list for the Angeles Link proceeding⁴ and is publicly available at: <https://www.socalgas.com/sustainability/hydrogen/angeles-link>.

II. PLANNING ADVISORY GROUP AND COMMUNITY BASED ORGANIZATION STAKEHOLDER GROUP ACTIVITY SUMMARY

During this reporting period, in compliance with the Decision's directive to conduct quarterly stakeholder engagement meetings, one joint virtual update meeting and two quarterly meetings were held, one with the Planning Advisory Group (PAG) and one with the Community Based Organization Stakeholder Group (CBOSG). In addition, throughout April and June 2024, the Angeles Link team expanded their Regional Outreach Efforts. These were informational meetings with a diverse group of organizations representing agriculture, business/economic development, community-based organizations, environmental justice organizations, environmental non-governmental organizations, and local government officials. Meetings were held in-person and virtually over Zoom. These meetings are discussed in further detail below.

April 2024 Virtual Joint Update Meeting

SoCalGas hosted one virtual joint update meeting in the month of April, where SoCalGas provided a status update on Angeles Link Phase 1 Studies and provided an overview of a new streamlined process for releasing and taking input on preliminary findings and draft reports. SoCalGas also reviewed proposed revisions to the CBOSG compensation plan and presented a proposed meeting calendar for the remainder of Phase 1.

¹ Per the Decision (D.22-12-055) at 9, "clean renewable hydrogen" is defined as hydrogen produced with a carbon intensity equal to or less than four kilograms of carbon dioxide-equivalent produced on a lifecycle basis per kilogram and does not use any fossil fuel in its production process.

² D.22-12-055 at 2.

³ *Id.* at 74-75.

⁴ A.22-02-007

June 2024 Quarterly Meetings

SoCalGas hosted two quarterly meetings (one PAG and one CBOSG) in the month of June. At the June 18 CBOSG and June 21 PAG quarterly meetings, SoCalGas presented draft reports for the Project Options and Alternatives Study (Alternatives Stud) and the High-Level Economics and Cost Effectiveness Study (Cost Effectiveness Study), and the preliminary findings of the Environmental Analysis. The CBOSG meeting included a third-party panel discussion on community benefits, featuring experts in community benefit plans, workforce, and economic development.

Expanded Regional Outreach Efforts

In response to PAG and CBOSG feedback, SoCalGas expanded its engagement beyond the CBOSG members to reach out to organizations within the broader region of SoCalGas territory, including the San Joaquin Valley, Santa Clarita Valley, Antelope Valley, and San Fernando Valley to provide information about Angeles Link and offer them opportunities to stay informed. Over the Q2 2024 reporting period, SoCalGas met with 29 organizations as part of the expanded engagement efforts. In accordance with the Phase 1 Decision,⁵ costs associated with these activities will not being recorded to the Angeles Link Memorandum Account for cost recovery.

Preliminary Findings & Draft Reports

During this reporting period, SoCalGas shared the preliminary data and findings for several Phase 1 studies. This included information on the Preliminary Routing/Configuration Analysis (Routing Analysis), which also included Right-of-Way (ROW) and Franchise information, Production Planning & Assessment (Production Study), Plan for Applicable Safety Requirements (Safety Study), Workforce Planning & Training Evaluation (Workforce Study), High-Level Feasibility Assessment & Permitting Analysis (Permitting Study), Pipeline Sizing & Design Criteria (Design Study), Alternatives Study, Cost Effectiveness Study, and Environmental Analysis & the Environmental Social Justice (ESJ) Analysis (which was separated into two independent studies: Environmental Analysis and t ESJ Plan and Screening). Additionally, SoCalGas provided the draft Hydrogen Leakage Assessment (Leakage Study) and Safety Study. The preliminary findings and draft Reports provided during the reporting period are provided in Appendix 1. Comment letters received during the reporting period are provided in Appendix 2, and SoCalGas responses to those comment letters are provided in Appendix 3.

⁵ D.22-12-055.

Table 1: Index of Comment Letters Received During Q2 2024

Comment Letter	Date of Letter	Commenter
Preliminary Data and Findings (Routing Analysis, Production Study, Safety Study, Workforce Study, and Permitting Analysis) (Comment Period April 17 – May 3, 2024)		
1	May 3	Air Products
2	May 3	Cal Advocates
3	May 3	Communities for a Better Environment
4	May 3	Food and Water Watch
5	May 3	Protect Playa Now
Preliminary Data and Findings (Design Study, Alternatives Study, and Cost Effectiveness Study) (Comment Period May 21 – June 4, 2024)		
6	May 30	Green Hydrogen Coalition
7	June 4	Cal Advocates
8	June 4	Communities for a Better Environment
9	June 4	Food and Water Watch
10	June 4	Protect Playa Now
Preliminary Data and Findings (Environmental Analysis & the ESJ Screening) (Comment Period June 11 – June 25, 2024)		
11	June 25	Communities for a Better Environment
Draft Study (Leakage Study) (Comment Period May 29 – June 26, 2024)		
12	June 26	Environmental Defense Fund and Natural Resources Defense Council
13	June 26	Communities for a Better Environment
14	June 26	Food and Water Watch

III. COMMENTS AND RESPONSES TO STAKEHOLDER FEEDBACK

In compliance with D.22-12-015, Ordering Paragraph (OP) 3(h), SoCalGas sought feedback from the PAG and CBOSG (Appendix 2 – PAG/CBO Written Comments), summarized in this Quarterly Report, and provided responses to comments (Appendix 3 - SoCalGas Responses to Comments). SoCalGas appreciates the continued engagement of the PAG and CBOSG throughout the stakeholder engagement process and the continued active participation in the stakeholder workshops and meetings. Completion of the draft Phase 1 studies continues to be an iterative process and the feedback and insights provided by members of the PAG and CBOSG at various junctures have been and will continue to be carefully considered.

SoCalGas received PAG and CBOSG member input verbally, through in-person and virtual attendee comments and discussions at workshops or via Zoom, or in writing through email. Feedback was often relayed as part of a PAG and CBOSG discussion, and, in many cases, responses were provided in real time. As noted above, formal written communications have been included as Appendix 2 and SoCalGas provided responses to written comments in Appendix 3.

A complete list of meeting participants is included in Appendix 4 - Attendee list for PAG and CBOSG meetings, as well as those invited who were not in attendance. For additional details on verbal feedback and meeting discussions, please refer to court reporter transcripts of second quarter meetings (Appendix 5 - Transcripts). CBOSG and PAG meeting materials are provided in Appendices 6 and 7, respectively. Links to PAG and CBOSG meeting recordings are in Appendix 8, and summaries of CBOSG and PAG stakeholder meetings are in Appendix 9 and 10, respectively.

A. Summary of General Comments

This summary provides an overview of key topics that were raised during the meetings and workshops and in written comments during the Q2 2024 period. General responses, referred to as “global responses,” together with detailed responses to written comments received during the Q2 2024 period are included in Appendix 3.

- **Stakeholder Engagement Process:** Some commenters stated that SoCalGas did not include details or analysis in its preliminary findings, did not provide adequate time for comments, and used marketing and/or promotional language in the preliminary findings.
- **Hydrogen Leakage:** Some commenters stated the assessment did not include detailed information or information regarding potential leakage associated with end use, last mile delivery or a large leakage event.
- **Preliminary Routing/Configuration Analysis (including ROW and Franchise):** Some commenters stated that the transmission ROW analysis was too narrow, pipeline routes needed to avoid traversing disadvantaged communities (DACs), and the Routing Analysis preliminary findings may not align with the Alliance for Renewable Clean Energy Systems (ARCHES).
- **Production:** Some commenters stated that the Production Study should provide assumptions for the amount of land required; address land availability constraints; consult with local, state and federal governments on the feasibility of production areas; and assess the role of storage and curtailed renewable generation.

- **Economic Analysis & Cost Effectiveness:** Some commenters inquired about assessing potential ratepayer impacts, especially on low-income communities, storage requirements, overall project cost, and how potential funding is addressed.
- **ESJ Screening:** Commenters expressed a concern around lack of providing detailed data, including more granular maps and routes.

IV. ALLIANCE FOR RENEWABLE CLEAN HYDROGEN ENERGY SYSTEMS

ARCHES is California's public-private hydrogen hub consortium to accelerate the development and deployment of clean, renewable energy sources to reduce Greenhouse Gas (GHG) emissions and advance to a zero-carbon economy.⁶ Consistent with D.22-12-055, SoCalGas joined ARCHES in October 2022 and was included in the proposal under ARCHES application to the U.S. Department of Energy (DOE) for federal funding of a clean hydrogen hub. On October 13, 2023, the DOE announced that, after a rigorous application and review process, ARCHES was one of seven hydrogen hubs selected to receive up to \$1.2 billion in federal funding.⁷ On July 17, 2024, outside the time period of activities addressed in this Q2 report, ARCHES and the DOE announced the signing of a formal \$12.6 billion cooperative agreement, including up to \$1.2 billion of cost share from the DOE and \$11.4 billion in public and private matching funds, to build and expand clean energy infrastructure across California.

V. PHASE 1 FEASIBILITY STUDIES UPDATE

SoCalGas is required to submit Quarterly Reports to the Commission's Deputy Executive Director for Energy and Climate Policy on the progress of the Phase 1 activities and to report any preliminary results and findings regarding the feasibility studies included in Phase 1.⁸ This section provides key updates from this reporting period on the status of the feasibility studies being undertaken in compliance with the Decision, in furtherance of Angeles Link. The study updates provided herein may be subject to further modification given PAG and CBOSG input and may also change based on results from other studies, and/or other variables.

The summary provided in the table below include activities that occurred within the current quarter (i.e., April to June 2024), activities that occurred prior to this quarter related to key milestones (preliminary findings and draft report), and activities that occurred after the close of the quarter but prior to the release of this quarterly report (shown in parenthesis). SoCalGas expects to publish all of the final studies with the PAG and CBOSG in Q3 2024.

⁶ Regional Clean Hydrogen Hubs. Accessible at: <https://www.energy.gov/oced/regional-clean-hydrogen-hubs-0>

⁷ California wins up to \$1.2 billion from feds for hydrogen Accessible at: <https://archesh2.org/california-wins-up-to-1-2-billion-from-feds-for-hydrogen/>

⁸ D.22-12-055 at 74-75, OP 3(h).

A. Market Assessment & Alternatives

Demand Study	
Overview	The Decision requires SoCalGas to identify hydrogen demand, end uses, and potential end-users (including current natural gas customers and future customers) of Angeles Link. ⁹ SoCalGas is evaluating potential clean renewable hydrogen demand and assessing adoption in the Mobility, Power Generation, and Industrial sectors.
Progress Summary	<p>Over the reporting period, SoCalGas made progress on the Final Demand Study, incorporating feedback from PAG and CBOSG gathered over current and previous quarters.</p> <p>Previously, SoCalGas issued preliminary findings to PAG and CBOSG on August 21, 2023. Feedback on the preliminary findings was due September 25, 2023. SoCalGas shared the draft study with the PAG and CBOSG on January 17, 2024. Feedback on the draft study was due on February 23, 2024.</p>

⁹ *Id.* at 75-76, OP 6 (a) and OP 6 (c).

Production Planning & Assessment (Production Study)	
Overview	The Decision requires SoCalGas to identify the potential sources of hydrogen generation for Angeles Link ¹⁰ and its plans to ensure the quality of the hydrogen gas meets the clean renewable hydrogen standards. ¹¹ SoCalGas is evaluating potential sources of clean renewable hydrogen production from renewable sources such as solar and wind, input requirements, estimated cost of production, and policies and procedures.
Progress Summary	<p>Over the reporting period, SoCalGas continued to advance the Production Study to include content and findings for the draft report. In addition, feedback received regarding land availability assumptions, the role of storage, and the role of electric curtailments were further considered in the report.</p> <p>(The draft study was issued to the PAG and CBOSG on July 19, 2024, and was presented to CBOSG and PAG on July 23 and July 24, 2024, respectively. Feedback is due on August 14, 2024.)</p> <p>Previously, SoCalGas issued the preliminary findings to PAG and CBOSG on April 11, 2024. Feedback on the preliminary findings was due May 3, 2024.</p>

¹⁰ *Id.* at 75-76, OP 6 (b).

¹¹ *Id.* at 75-76, OP 6 (j).

Project Options and Alternatives Study (Alternatives Study)	
Overview	The Decision required SoCalGas to consider and evaluate project alternatives, including a localized hydrogen hub or other decarbonization options such as electrification. ¹² SoCalGas is also required to study a localized hydrogen hub solution under the specifications required to be eligible for federal funding as part of Phase 1. ¹³ SoCalGas is evaluating project options and alternatives, including other hydrogen delivery alternatives and non-hydrogen alternatives.
Progress Summary	Over the reporting period, SoCalGas continued the evaluation of options and alternatives for non-hydrogen alternatives as well as other hydrogen delivery alternatives. SoCalGas issued the preliminary findings to PAG and CBOSG on May 21, 2024. Feedback on the preliminary findings was due June 4, 2024. SoCalGas presented a preview of the draft study to PAG and CBOSG on June 21 and June 18, 2024, respectively. (The draft study was issued to PAG and CBOSG on July 26, 2024. Feedback is due on August 23, 2024.)

¹² *Id.* at 75-76, OP 6 (d).

¹³ *Id.* at 73-74, OP 3 (c).

High-Level Economic Analysis & Cost Effectiveness Study (Cost Effectiveness Study)	
Overview	The Decision requires SoCalGas to evaluate the cost effectiveness of Angeles Link against alternatives and determine a methodology to measure cost effectiveness between alternatives. ¹⁴ SoCalGas is developing methodology used to measure cost effectiveness, including gathering cost estimates, performing an economic analysis to estimate at a high level the levelized cost of clean renewable hydrogen (LCOH), and comparing the cost effectiveness of Angeles Link against various project alternatives.
Progress Summary	<p>Over the reporting period, SoCalGas made further progress to measure cost effectiveness of Angeles Link and alternatives, including a comparative analysis to determine the cost effectiveness of hydrogen delivery alternatives and non-hydrogen alternatives. SoCalGas issued the preliminary findings to PAG and CBOSG on May 21, 2024. Feedback on the preliminary findings was due June 4, 2024. SoCalGas presented a preview of the draft study to PAG and CBOSG on June 21 and June 18, 2024, respectively.</p> <p>(The draft study was issued to PAG and CBOSG on July 26, 2024. Feedback is due on August 23, 2024.)</p>

¹⁴ *Id.* at 75-76, OP 6 (d).

B. Regulatory, Policy & Environmental

Water Resource Evaluation (Water Study)	
Overview	The Decision requires SoCalGas to identify the potential sources of clean renewable hydrogen generation and water and estimate the costs of the hydrogen for Angeles Link. ¹⁵ SoCalGas is evaluating the availability of water resources for third-party clean renewable hydrogen production in the Central and Southern California regions.
Progress Summary	<p>Over the reporting period, SoCalGas continued to finalize the draft Water Study by incorporating stakeholder feedback.</p> <p>(The draft study was issued to PAG and CBOSG on July 5, 2024. Feedback is due on August 2, 2024.)</p> <p>Previously, SoCalGas issued the preliminary findings to PAG and CBOSG on March 1, 2024. Feedback on the preliminary findings was due on March 29, 2024.</p>

Hydrogen Leakage Assessment (Leakage Study)	
Overview	The Decision directs SoCalGas to assess the risks and mitigations for hydrogen leakage. ¹⁶ SoCalGas is evaluating potential hydrogen leakage associated with third-party production, third-party storage, compression, and transmission of hydrogen. The assessment will also identify and evaluate potential mitigation measures.
Progress Summary	<p>Over the reporting period, SoCalGas finalized the draft Leakage Study for issuance to the PAG and CBOSG. SoCalGas issued the draft study to the PAG and CBOSG on May 29, 2024. Feedback on the draft Report was due on June 26, 2024.</p> <p>Previously, SoCalGas presented a preview of the draft study to PAG and CBOSG on February 15, 2024, and issued the preliminary findings to PAG and CBOSG on February 27, 2024. Feedback on the preliminary findings was due on March 29, 2024.</p>

¹⁵ *Id.* at 75-76, OP 6 (b).

¹⁶ *Id.* at 75-76, OP 6 (g).

Nitrogen Oxide (NOx) and other Air Emissions Assessment (NOx Study)	
Overview	The Decision requires SoCalGas to assess potential NOx emissions associated with Angeles Link, including appropriate controls to mitigate emissions. ¹⁷ SoCalGas is evaluating NOx associated with third-party production, third-party storage and transmission of hydrogen, as well as NOx emissions associated with displacement of fossil fuels by hydrogen at end users. Key areas of focus include the Mobility, Power Generation, and Hard-to-Electrify Industrial end use sectors. SoCalGas is also identifying and evaluating potential opportunities to minimize NOx emissions. Finally, SoCalGas is evaluating anticipated VOC and PM emission reductions at end users.
Progress Summary	<p>Over the reporting period, SoCalGas continued to progress the Nitrogen Oxide (NOx) and other Air Emissions Assessment.</p> <p>(The draft study was issued to PAG and CBOSG on July 16, 2024. Feedback is due on August 13, 2024.)</p> <p>Previously, SoCalGas presented a preview of the draft study to PAG and CBOSG on December 12 and December 15, 2023, respectively. SoCalGas issued the preliminary findings to PAG and CBOSG on March 21, 2024. Feedback on the preliminary findings was due on April 5, 2024.</p>

¹⁷ *Id.* at 75-76, OP 6 (h).

Greenhouse Gas (GHG) Emissions Evaluation (GHG Study)	
Overview	<p>The Decision directs SoCalGas to provide the findings from Phase 1 feasibility studies demonstrating compliance with environmental laws and public policies.¹⁸ To support evaluation of environmental laws and public policies, SoCalGas is conducting an evaluation of anticipated GHG reductions associated with Angeles Link. To conduct this evaluation, SoCalGas is estimating GHG emissions associated with third-party production, third-party storage, and transmission of hydrogen, as well as GHG emissions associated with the displacement of fossil fuels by hydrogen at end users. Key areas of focus include the Mobility, Power Generation, and Hard-to-Electrify Industrial end use sectors.</p>
Progress Summary	<p>Over the reporting period, SoCalGas continued to progress the GHG Emissions Evaluation report.</p> <p>(The draft study was issued to PAG and CBOSG on July 10, 2024. Feedback was due on August 7, 2024.)</p> <p>Previously, SoCalGas issued the GHG emissions evaluation preliminary findings to PAG and CBOSG on February 27, 2024. Feedback on the preliminary findings was due on March 29, 2024. SoCalGas presented a preview of the study to CBOSG/PAG on December 13 and December 15, 2023, respectively.</p>

¹⁸ *Id.* at 75-77, OP 6 (n).

Environmental Analysis	
Overview	The Decision directs SoCalGas to consider how the planning process considers and evaluates project alternatives, including a localized hydrogen hub or other decarbonization options such as electrification, their costs and their environmental impacts, ¹⁹ as well as to identify and compare possible routes and configurations, ²⁰ and to provide the findings from Phase 1 feasibility studies demonstrating compliance with California environmental law and public policies. ²¹
Progress Summary	<p>Over the reporting period, work continued to progress for the Environmental Analysis, including impact evaluations for the proposed pipeline system and alternatives. The preliminary findings for the Environmental Analysis and Environmental Social Justice (ESJ) Analysis (renamed to ESJ Screening and subsequently broken out from the Environmental Analysis as explained further herein) were issued to PAG and CBOSG on June 11, 2024. Feedback on the preliminary findings was due on June 25, 2024. SoCalGas also presented the Environmental Analysis preliminary findings to the CBOSG and PAG on June 18 and June 21, 2024, respectively.</p> <p>During the reporting period and in response to stakeholder feedback, the ESJ Screening was broken out from the Phase 1 Environmental Analysis and was made part of the Environmental Social Justice (ESJ) Community Engagement Plan (described further below). The ESJ Screening will guide the identification of stakeholders and ESJ Communities to engage in Phase 2 of Angeles Link.</p> <p>(The draft analysis was issued to PAG and CBOSG on July 26, 2024. Feedback is due on August 23, 2024.)</p>

¹⁹ *Id.* at 75-77, OP 5 (e).

²⁰ *Id.* at 75-77, OP 6 (i).

²¹ *Id.* at 75-77, OP 6 (n).

ESJ Plan and ESJ Screening	
Overview	The Decision requires SoCalGas to address and mitigate impacts to disadvantaged communities and other environmental justice concerns. ²² SoCalGas is preparing an ESJ Plan to engage communities living near potential preferred routes and to create an opportunity to hear from the community. SoCalGas is also preparing an ESJ Screening. The ESJ Screening was initially part of the Environmental Analysis; however, given that the ESJ Screening will guide SoCalGas’s future stakeholder engagement efforts summarized in the ESJ Plan, the ESJ Screening was subsequently made part of the ESJ Plan.
Progress Summary	<p>Over the reporting period, the preliminary findings of the ESJ Screening were issued to PAG and CBOSG on June 11, 2024 (included with the preliminary findings of the Environmental Analysis).²³ Feedback on the preliminary findings was due on June 25, 2024.</p> <p>(The draft ESJ Plan and Screening was issued to PAG and CBOSG on July 19, 2024. Feedback is due on August 13, 2024. The draft ESJ Plan was presented to the CBOSG and PAG and CBOSG on July 23 and July 24, 2024, respectively.)</p>

²² *Id.* at 75-77, OP 6 (I).

²³ The ESJ Plan primarily serves as a stakeholder engagement document that outlines strategies and goals for engagement in Phase 2; as such, the ESJ Plan did not lend itself to preliminary findings.

High-Level Feasibility Assessment & Permitting Analysis (Permitting Analysis)	
Overview	The Decision requires SoCalGas to identify and compare possible routes and configurations for Angeles Link. ²⁴ SoCalGas is conducting a high-level assessment of potential environmental and regulatory approvals, including federal, state, and local environmental permitting and regulatory approvals, regulatory approval timing, and environmental constraints.
Progress Summary	<p>Over the reporting period, SoCalGas continued the process of evaluating potential environmental and regulatory approvals that could be needed for Angeles Link at state and federal levels. SoCalGas published preliminary findings to PAG and CBOSG on April 11, 2024. Feedback was due on May 3, 2024.</p> <p>(The draft analysis was issued to PAG and CBOSG on July 19, 2024 and the draft analysis was discussed at the CBOSG and PAG meetings on July 23 and July 24, 2024, respectively. Feedback on the draft analysis is due on August 16, 2024.)</p>

²⁴ *Id.* at 75-76, OP 6 (i).

C. Engineering Design

Preliminary Routing/Configuration Analysis (including ROW and Franchise) (Routing Analysis)	
Overview	<p>The Decision requires SoCalGas to identify and compare possible routes and configurations for Angeles Link.²⁵ The study aims to:</p> <ol style="list-style-type: none">1. Determine several preferred routing/configuration alternatives for the hydrogen system for Phase 1.2. Evaluate technical considerations, and other potential geographical and urban challenges.3. Consider existing pipeline corridors or rights-of-way, other known existing rights-of-way, franchise rights, designated federal energy corridors or rights-of-way.²⁶
Progress Summary	<p>Over the reporting period, SoCalGas performed the following:</p> <ol style="list-style-type: none">1. Preliminary Routing: identification of routing features and the integration of information from other studies continued. Possible preferred routes were developed to include two SoCalGas pipeline segments (one located in San Joaquin Valley and one from Lancaster to LA Basin) included in the ARCHES H2Hub Application. Additionally, one route variation was identified in alignment with ESJ Screening findings and response to stakeholder comments.2. Integration of Land Rights Information: integrated information related to land rights, including preliminary identification of existing Direct Land Rights and rights to use Rights of Way pursuant to a municipal franchise agreement for preliminary pipeline segments. <p>SoCalGas published the preliminary findings to PAG and CBOSG on April 11, 2024. Feedback was due on May 3, 2024.</p> <p>(The draft analysis was issued to PAG and CBOSG on July 19, 2024. The study was presented to PAG and CBO on July 24 and July 23, 2024, respectively. Feedback on the draft analysis is due on August 16, 2024.)</p> <p>Previously, SoCalGas presented a preview of the draft study preliminary findings to CBOSG and PAG on March 4 and 5, 2024, respectively.</p>

²⁵ *Id.* at 75-76, OP 6 (i).

²⁶ Given the relationship with the routing analysis, right-of-way and franchise information will be integrated within the Routing Analysis.

Pipeline Sizing & Design Criteria (Design Study)	
Overview	The Decision requires SoCalGas to compare possible routes and configurations. ²⁷ SoCalGas is estimating potential range of pipeline sizes for the pipeline route from production to end-use, identifying potential materials for pipeline, fittings, and differences in operational equipment, discussing pressures and maintenance operations associated with design, and evaluating compression characteristics and options.
Progress Summary	<p>Over the reporting period, SoCalGas continued data collection and analysis from other studies (e.g., Demand Study, Production Study) to develop hydraulic modeling cases. The hydraulic models were used to evaluate preliminary pipeline sizing, pressure, and flow, compression requirements, and pipeline material selection. SoCalGas published preliminary findings to PAG and CBOSG on May 21, 2024. Feedback was due on June 4, 2024.</p> <p>(SoCalGas issued the draft report to PAG and CBOSG on July 19, 2024. Feedback is due on August 16, 2024.)</p>

²⁷ *Id.* at 75-76, OP 6 (i).

Plan for Applicable Safety Requirements (Safety Study)	
Overview	The Decision requires SoCalGas to evaluate safety concerns involved in pipeline transmission, storage, and transportation of hydrogen applicable to Angeles Link. ²⁸ SoCalGas is evaluating safety concerns and developing an assessment of applicable safety requirements for employee, contractor, system, and public safety.
Progress Summary	Over the reporting period, SoCalGas continued to assess and review applicable safety requirements to evaluate how those requirements may apply to Angeles Link. SoCalGas published the preliminary findings to PAG and CBOSG on April 11, 2024. Feedback was due on May 3, 2024. SoCalGas published the draft Report on June 21, 2024. Feedback on the draft Report was due on July 19, 2024. Third-party review of this evaluation is being conducted by the Department of Energy (DOE) Hydrogen and Fuel Cells Technology Office's established Hydrogen Safety Panel.

Workforce Planning & Training Evaluation (Workforce Study)	
Overview	The Decision requires SoCalGas to evaluate workforce planning and training. ²⁹ SoCalGas is evaluating operations and maintenance protocols for utility workers regarding hydrogen infrastructure and workforce needs in terms of staging and growth for Angeles Link.
Progress Summary	Over the reporting period, SoCalGas continued to evaluate potential planning and workforce training applicable to Angeles Link, which includes a preliminary assessment of jobs created. SoCalGas published preliminary findings to PAG/CBOSG on April 11, 2024. Feedback was due on May 3, 2024. (The draft report was issued to PAG and CBOSG on July 5, 2024. Feedback was due on August 2, 2024.) Previously, on March 4 and 5, 2024, SoCalGas presented the draft study to CBOSG and PAG, respectively.

²⁸ *Id.* at 75-76, OP 6 (f).

²⁹ *Id.* at 75-76, OP 6 (e).