



FILED
8-29-16
04:59 PM

ATTACHMENT 1

DATA WORKING GROUP

R. 15-03-010

Mina Botros
Utilities Engineer



Summary

- ❖ Out approximately 891,000 households in the San Joaquin Valley, approximately 862,000 have gas service and 29,000 do not.
 - ❖ 97% of Households currently have gas service available.
- ❖ Data Working Group is making progress, yet discovery and clarifications are still ongoing. (See slide 6).
- ❖ Guidance from the CPUC is needed to be able to move towards Phase 2 of the proceeding (cost effectiveness). (See slide 15).





ORA Current Efforts

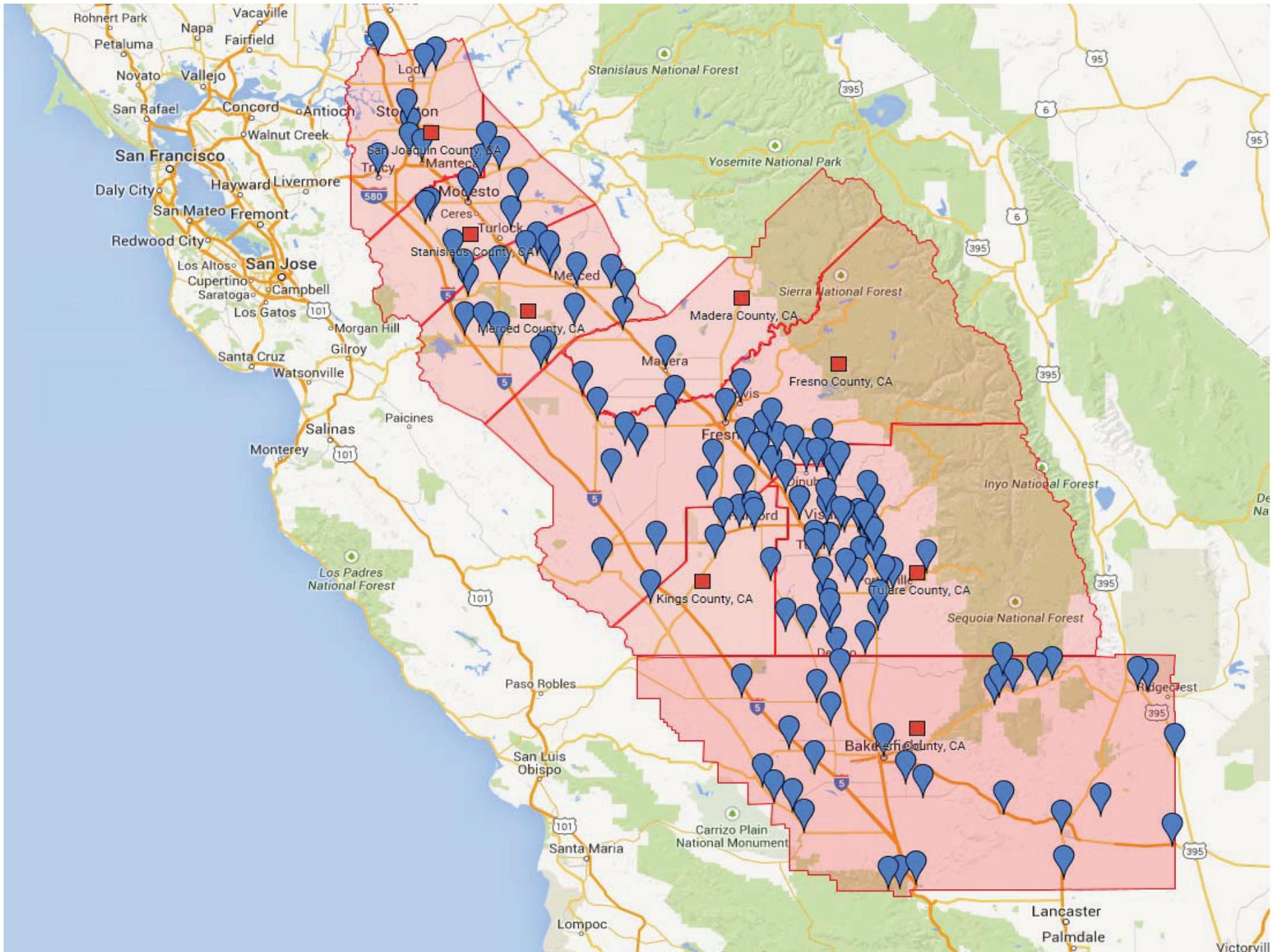
- ❖ Within the Data Working Group, ORA has taken initiative to categorize the disadvantaged communities identified by the utilities in the following ways:
 - » Fully served by natural gas;
 - » Partially served and if so, the known service level;
 - » Not served at all.





Assumptions

- ❖ All **170** communities meet the criteria in the PU Code §783.5, and represent the complete list provided by the utilities.
- ❖ Due to possible census data statistical errors, households receiving electric service were used as the baseline of comparison to households receiving gas service to determine the gas service level.
 - ❖ Exception: 14 communities within PG&E's service boundaries that are electrically served by municipalities or irrigation districts had the census household count used as the baseline of comparison.





Data Gathering

- ❖ ORA has focused its efforts on categorizing the gas service levels of the communities meeting the requirements of Public Utilities Code Section 783.5. (See slide 8.)
- ❖ ORA primary challenge was getting consistent data across geographic divisions, customer bases, utility service territories, etc.
- ❖ ORA is still undergoing discovery and working with the Data Working Group to organize and structure the data.
- ❖ ORA thanks the utilities for their active cooperation during the data gathering process.





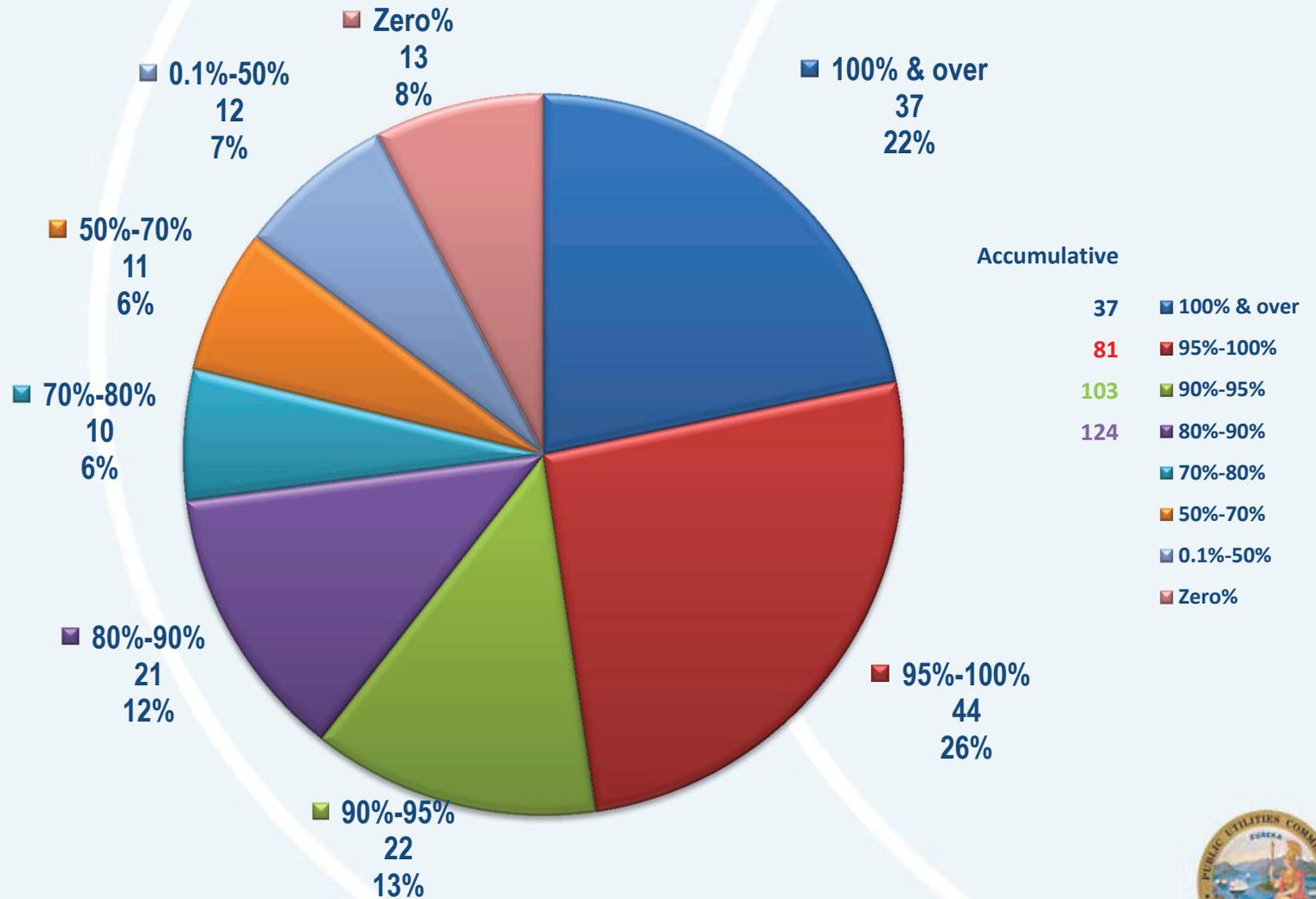
Data Sources & Limitations

- ❖ 2015-2016 Annual Low Income Program Demographic Eligibility Estimation prepared by Athens Research, provided to ORA through the Utilities.
- ❖ Data is generally reported and collected at the household level, not by population.



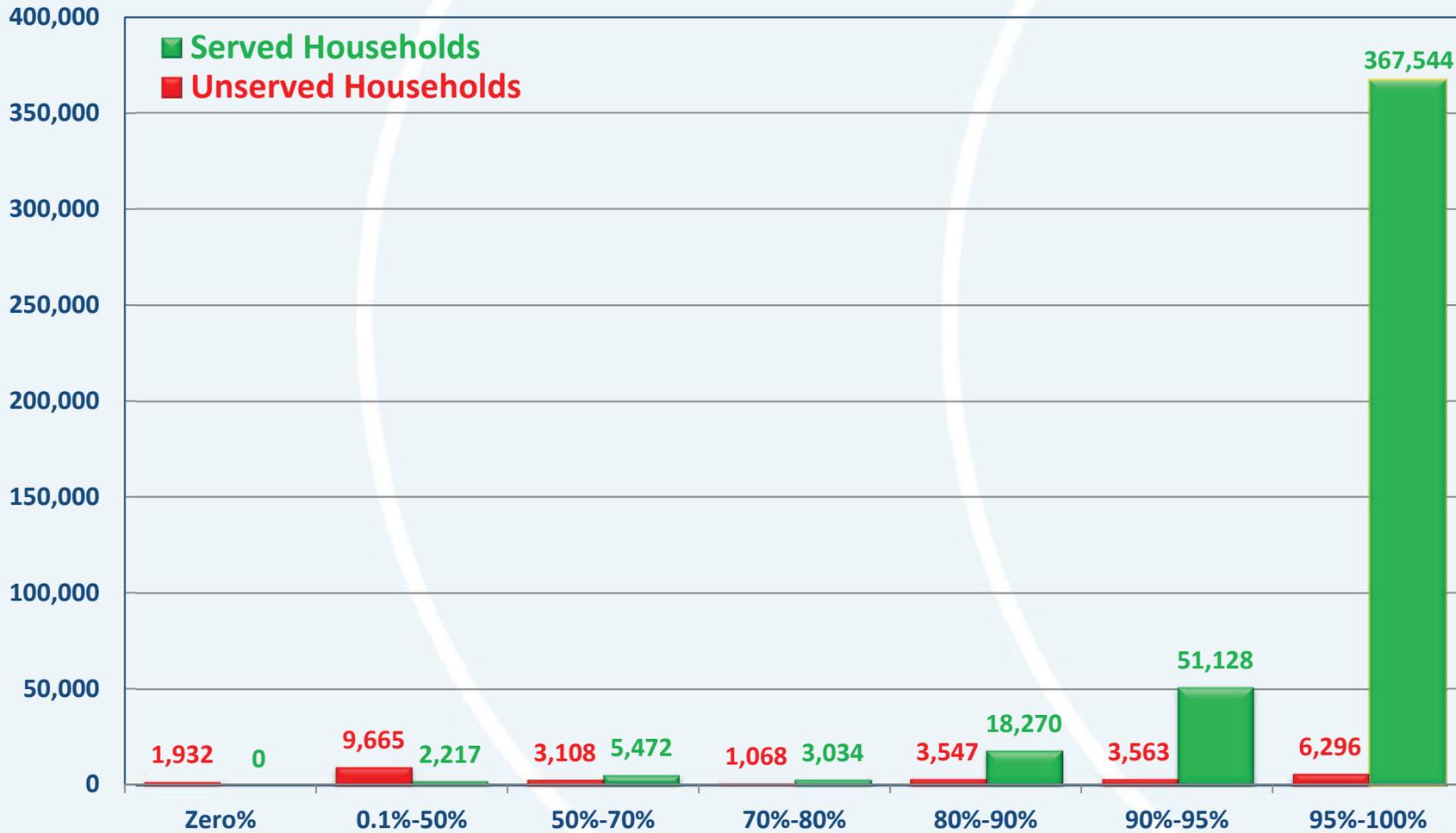


Communities Gas Service level Categorization



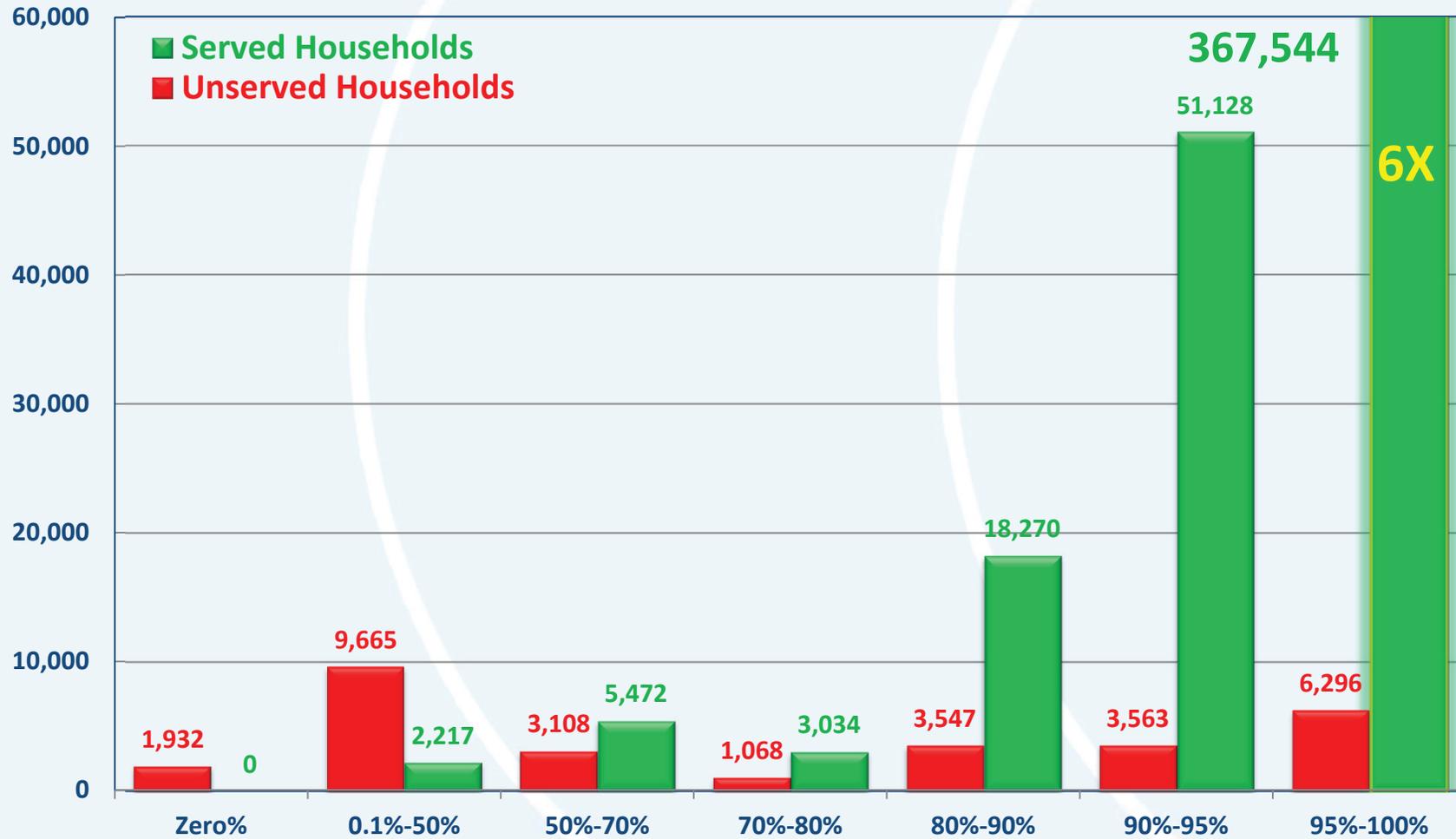


Unserved(29K)/served households for each category



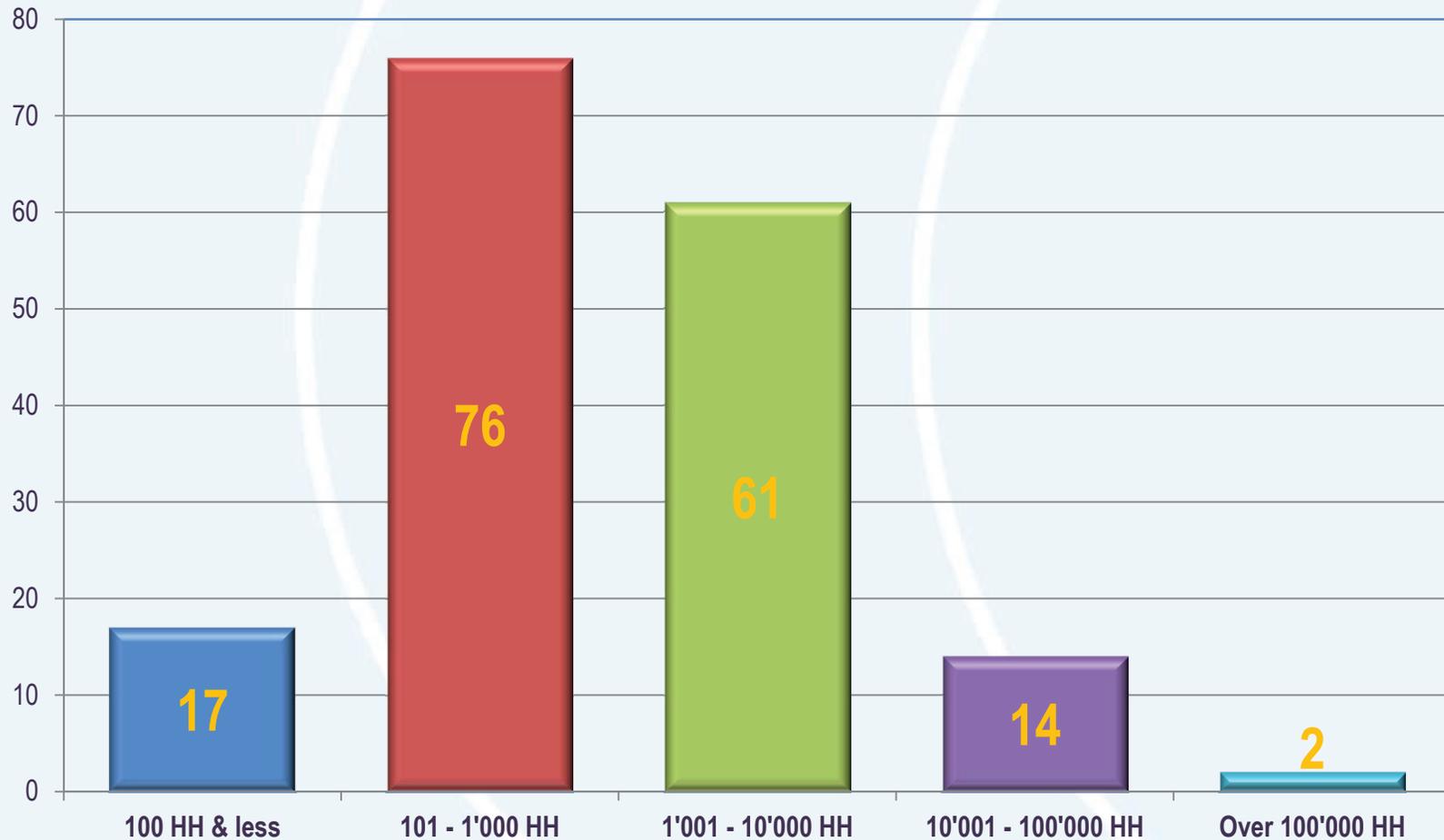


Unserved(29K)/served households for each category





Communities size categorization





Communities categorized by service level and size

Categorization	100 HH & less	101 - 1'000 HH	1'001 - 10'000 HH	10'001 - 100'000 HH	Over 100'000 HH
100% & over	4	12	15	5	1
95%-100%	1	12	22	8	1
90%-95%	2	5	14	1	
80%-90%	3	13	5		
70%-80%	2	7	1		
50%-70%	2	8	1		
0.1%-50%	1	8	3		
Zero%	2	11			





29K Unserved households categorized by service level and size

Categorization	100 HH & less	101 - 1'000 HH	1'001 - 10'000 HH	10'001 - 100'000 HH	Over 100'000 HH
100% & over					
95%-100%	2	125	1,725	4,200	244
90%-95%	8	170	2,431	954	
80%-90%	27	1,054	2,466		
70%-80%	25	609	434		
50%-70%	40	1,311	1,757		
0.1%-50%	69	1,572	8,024		
Zero%	164	1,768			





Average unserved HH categorized by service level and size

Categorization	100 HH & less	101 - 1'000 HH	1'001 - 10'000 HH	10'001 - 100'000 HH	Over 100'000 HH
100% & over					
95%-100%	2	10	78	525	244
90%-95%	4	34	174	954	
80%-90%	9	81	493		
70%-80%	13	87	434		
50%-70%	20	164	1,757		
0.1%-50%	69	197	2,675		
Zero%	82	161			





Questions for CPUC & Parties

Clarification is needed regarding the following:

- ❖ If the Commission decides upon an appropriate cut off level in response to the question below, what are the next steps for communities that are sufficiently served by gas?
- ❖ Is a cut off level appropriate to consider if a community is sufficiently served by gas?
- ❖ If these clarifications are appropriate, how can the CPUC build the record?









The Law



California Public Utilities Code §783.5.

- A. For purposes of this section, the following terms have the following meanings:
1. "Disadvantaged community" means a San Joaquin Valley community that meets all of the following criteria:
 - a. At least 25 percent of residential households with electrical service are enrolled in the CARE program pursuant to Section 739.1.
 - b. Has a population greater than 100 persons within its geographic boundaries as identified by the most recent United States Census or a community survey.
 - c. Has geographic boundaries no farther than seven miles from the nearest natural gas pipeline operated by a gas corporation.
 2. "San Joaquin Valley" means the counties of Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare.
- B. No later than March 31, 2015, the commission shall initiate a new proceeding to do all of the following:
1. **Identify disadvantaged communities based on the criteria specified in subdivision (a).**
 2. Analyze the economic feasibility of the following options:
 - a. Extending natural gas pipelines to those disadvantaged communities.
 - b. Increasing subsidies for electricity for residential customers in those disadvantaged communities.
 - c. Other alternatives that would increase access to affordable energy in those disadvantaged communities that the commission deems appropriate.
- C. The commission shall determine whether any of the options analyzed in the proceeding would increase access to affordable energy in a cost-effective manner. For these options, the commission shall take appropriate action and determine appropriate funding sources.



ATTACHMENT 2
(Confidential)

ATTACHMENT 3



A  Sempra Energy utility



Project Cost Workshop

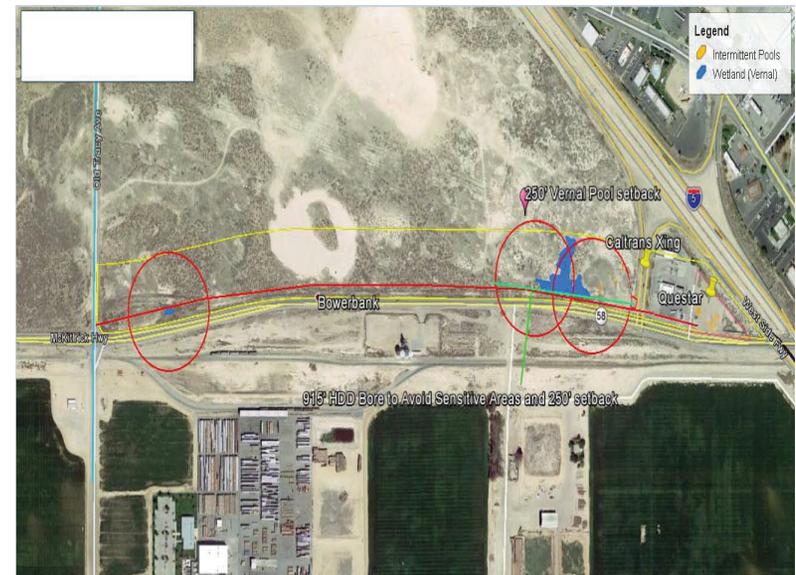
San Joaquin Valley Disadvantaged Communities
August 31, 2016



Project Cost One



- **Project Title:** Buttonwillow Pressure Betterment for CNG Customer
- **Project Type:** Pressure Betterment
- **Project Scope:**
 - Pipeline Extension of 4000' 6" High Pressure Main to serve a CNG Fueling Station at Highway 58 (MCKITTRICK HWY) in the city of Buttonwillow.
 - No Regulator Station Installation Required
 - Completed in 2015
- **Crew Type:** Bid
- **Considerations:**
 - Environmental (Vernal Pools)
 - Right of Way (4 Land Owners)
 - Caltrans Permitting (Crossing Freeway off Ramp)



Pressure	Diameter	Total Footage	Total Loaded Cost per Foot
High	6" STL	4,000'	\$239.90



Reg Station Example Costs



- Various New Business & Replacement Reg Stations Projects

Install Year	WR District	WR City	<u>New Business</u> Reg Station Jobs	Total Loaded Cost Per Station	Inlet/Outlet Footage	Cost Per Inlet/Outlet Footage (w/ RS)
2009	San Bernardino	Phelan	RS - BALDY MESA ROAD	\$233,812	41'	\$5,703
2007	Santa Ana	Tustin	RS - TUSTIN RANCH RD. @ BARRANCA PKWY.	\$313,322	790'	\$397
2006	Lancaster	Lancaster	RS - 90TH STREET WEST	\$125,856	87'	\$1,447
Install Year	WR District	WR City	<u>Replacement</u> Reg Station Jobs	Total Loaded Cost Per Station	Inlet/Outlet Footage	Cost Per Inlet/Outlet Footage (w/ RS)
2014	Bakersfield	McFarland	RS - WHISLER RD	\$487,993	118'	\$4,135
2013	Bakersfield	Bakersfield	RS - CALLOWAY/NORRIS	\$479,993	428'	\$1,121
2010	Visalia	Kingsburg	RS - BETHEL & CONEJO	\$190,015	111'	\$1,712





APPENDIX



A Sempra Energy utility

Glad to be of service.®



Estimated Costs



Community of Ducor (~137 Households)			
Facilities	Quantity	\$/Unit	Cost (\$)
District Regulator Station	1 unit	\$400,000	\$400,000
2" HP steel main	100ft	\$450 per ft	\$45,000
6" MP plastic main	28000ft	\$200 per ft	\$5,600,000
2" MP plastic main	11700ft	\$125 per ft	\$1,462,500
		Total	\$7,507,500

Community of Lindcove (~76 Households)			
Facilities	Quantity	\$/Unit	Cost (\$)
District Regulator Station	1 unit	\$400,000	\$400,000
2" HP steel main	100ft	\$450 per ft	\$45,000
6" MP plastic main	18000ft	\$200 per ft	\$3,600,000
4" MP plastic main	5300ft	\$150 per ft	\$795,000
2" MP plastic main	36000ft	\$125 per ft	\$4,500,000
		Total	\$9,340,000



A Sempra Energy utility

Glad to be of service.[®]

Estimated Costs



Community of Allensworth (~306 Households)			
Facilities	Quantity	\$/Unit	Cost (\$)
District Regulator Station	1 unit	\$400,000	\$400,000
2" HP steel main	100ft	\$450 per ft	\$45,000
6" MP plastic main	12000ft	\$200 per ft	\$2,400,000
2" MP plastic main	11500ft	\$125 per ft	\$1,437,500
		Total	\$4,282,500

Community of Seville (~312 Households)			
Facilities	Quantity	\$/Unit	Cost (\$)
6" MP plastic main*	5500ft	\$225 per ft	\$1,237,500
6" MP plastic main	7400ft	\$200 per ft	\$1,480,000
2" MP plastic main	11000ft	\$125 per ft	\$1,375,000
*Pressure betterment		Total	\$4,092,500

Estimated Cost for New Service Connection from Main	\$2,675
---	---------



GAS DISTRIBUTION SYSTEM: SUPPLY LINES



- Approx. 3,400 miles of Supply Lines
- Still at high pressures, but lower than Transmission lines
- Distribute gas to the individual Pressure Districts
- Diameters range from 30" down to 2"



Alteration on SCG's 12" H SL 41-05

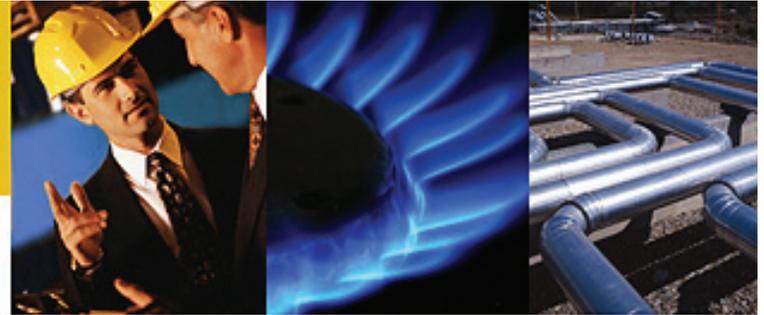


A Sempra Energy utility

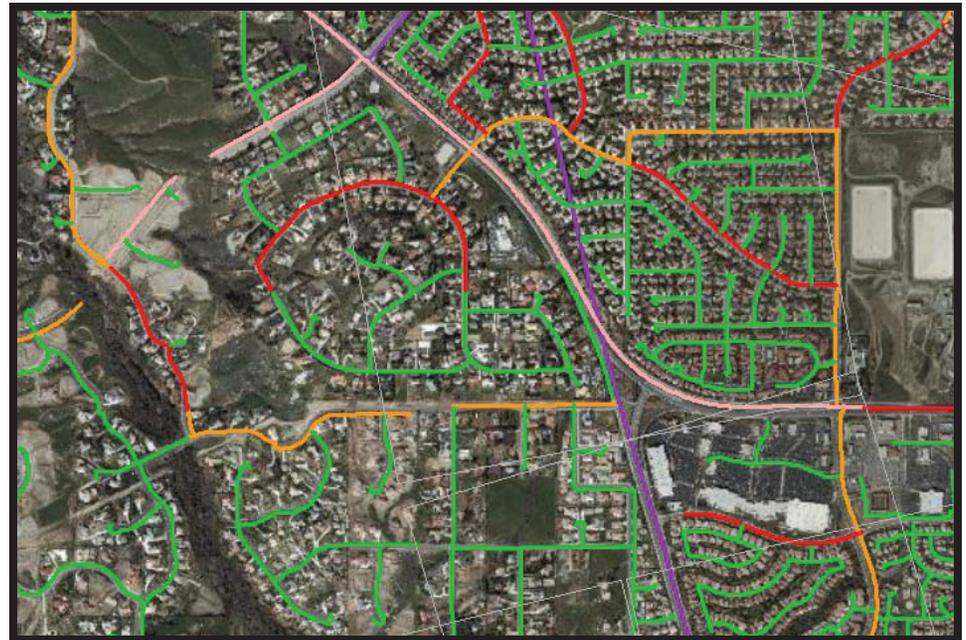
Glad to be of service.[®]

© 2016 SoCalGas all copyright and trademark rights reserved.

MEDIUM PRESSURE ZONE



- Supplied by District Regulator Stations
- Maximum Allowable Operating Pressure less/equal to 60 psig
- Gas is distributed throughout cities via distribution lines or “mains”
- Color-coded mains in GIS



Source: SCG GIS Web-viewer.

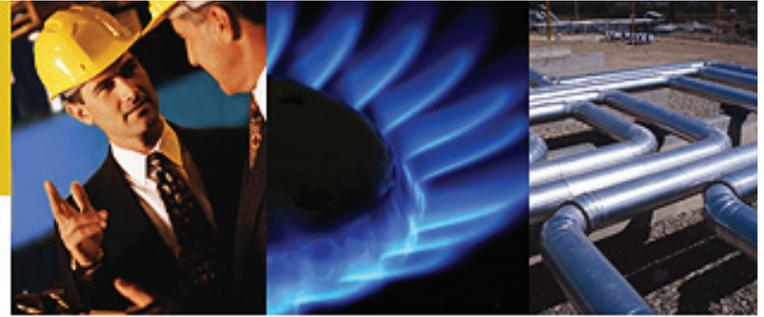


A Sempra Energy utility

Glad to be of service.[®]

© 2016 SoCalGas all copyright and trademark rights reserved.

REGULATOR STATIONS



- Supplied by HP Supply Lines
- Regulates pressure from Supply Line levels to Medium Pressure e.g. 385 psig in and 45 psig out



Above Ground Station



Below Ground Station



A Sempra Energy utility

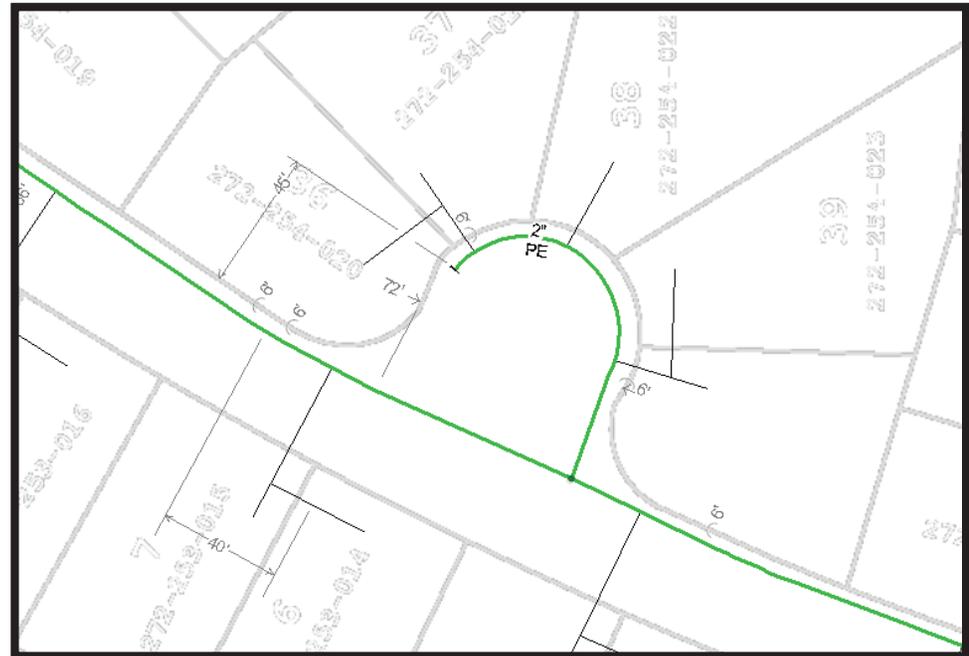
Glad to be of service.[®]

© 2016 SoCalGas all copyright and trademark rights reserved.

GAS DISTRIBUTION SYSTEM: SERVICE LINE



- Distribution main brings gas to customer's street
- Medium pressure service line is tapped off of main and run to customer's meter set assembly (MSA)
- Service lines are shown in black in the image



Source: SCG GIS Web-viewer.



A Sempra Energy utility

Glad to be of service.®

© 2016 SoCalGas all copyright and trademark rights reserved.