BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Continue Oversight of Electric Integrated Resource Planning and Procurement Processes.	Rulemaking 25-06-019 (Filed June 26, 2025)

PIONEER COMMUNITY ENERGY'S 2026 INTEGRATED RESOURCE PLAN [PUBLIC VERSION]

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August 10, 2026

On behalf of Pioneer Community Energy

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In compliance with the requirements of California Public Utilities Code Sections 454.51 and 454.52, California Public Utilities Commission ("Commission") Decision ("D.") 22-02-004 and *Assigned Commissioner and Assigned Administrative Law Judges' Ruling Identifying Issues and Schedule of Review for 2026 Renewables Portfolio Standard Procurement Plans* ("ACR"), issued on January 16, 2026, the *Email Ruling Granting Joint Request for Extension of Load Serving Entity ('LSE') Integrated Resource Plan ('IRP') Filings*, issued on March 9, 2026, and other rulings and guidance in the above-captioned proceeding, Pioneer Community Energy ("Pioneer") hereby provides its 2026 Integrated Resource Plan ("IRP") to the Commission for certification.

I. IRP DOCUMENTS INCLUDED AS ATTACHMENTS TO THIS FILING

Pioneer is e-filing this document in the instant Rulemaking and serving it to all parties identified in this Rulemaking's service list. Attached to this Filing are the following IRP related documents:

- *Attachment A* – Pioneer's IRP Verification
- *Attachment B* – Pioneer's IRP Narrative Template
- *Attachment C* – Pioneer's Resource Data Template Version 3 (Public Version)

- *Attachment D* - Clean Power System Calculator
- *Pioneer's Notice of Availability* – Pioneer's Notice of Availability of public versions of its IRP documents

II. REQUEST FOR CONFIDENTIAL TREATMENT OF NON-PUBLIC DOCUMENTS

Pioneer has developed both public (redacted) and confidential (unredacted) versions of its Resource Data Template (RDTv3). Pioneer has posted the public version of its RDTv3 on its website and is submitting the confidential version of this document to the Energy Division through the Commission's file transfer protocol ("FTP") site. Concurrently with the submission of this IRP, Pioneer is filing a Motion to File Under Seal setting forth the basis for protecting of confidential information redacted from the public version of the RDTv3.

III. CONCLUSION

Pioneer thanks the Commission for its time and effort in the 2024-2027 IRP cycle and for its review of Pioneer's IRP. Pioneer respectfully requests that the Commission certify its IRP.

Dated: August 10, 2026

Respectfully submitted,

/s/ Justin Wynne

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On behalf of Pioneer Community Energy

Attachment A
Verification

VERIFICATION

I, Sam Kang, am the Chief Operating Officer of Pioneer Community Energy ("PCE") and I am authorized to make this verification on behalf PCE. The statements and information in PCE's Integrated Resource Plan and all attachments thereto are true and accurate of my own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 10, 2026 at Rocklin, California.

s/ Sam Kang
Sam Kang
Chief Operating Officer
For: Pioneer Community Energy

Attachment B
Pioneer's IRP Narrative Template

Standard LSE Plan

PIONEER COMMUNITY ENERGY

2026 INTEGRATED RESOURCE PLAN

AUGUST 10, 2026

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I. Executive Summary

Description of Pioneer Community Energy

Pioneer Community Energy ("Pioneer") is a Joint Powers Authority ("JPA") formed by the communities of Rocklin, Lincoln, Auburn, Colfax, Loomis and Placer County in July 2017 to provide Community Choice Aggregation ("CCA") service.

As a JPA, Pioneer is a local government agency. Pioneer is governed by an eleven-member board composed of representatives of its member local governments. Through these representatives Pioneer is controlled by and accountable to the communities Pioneer serves. Pioneer began serving load in February 2018. In January 2022, Pioneer expanded its service to Placerville and unincorporated El Dorado County, and in January 2024 service was expanded to the cities of Grass Valley and Nevada City.

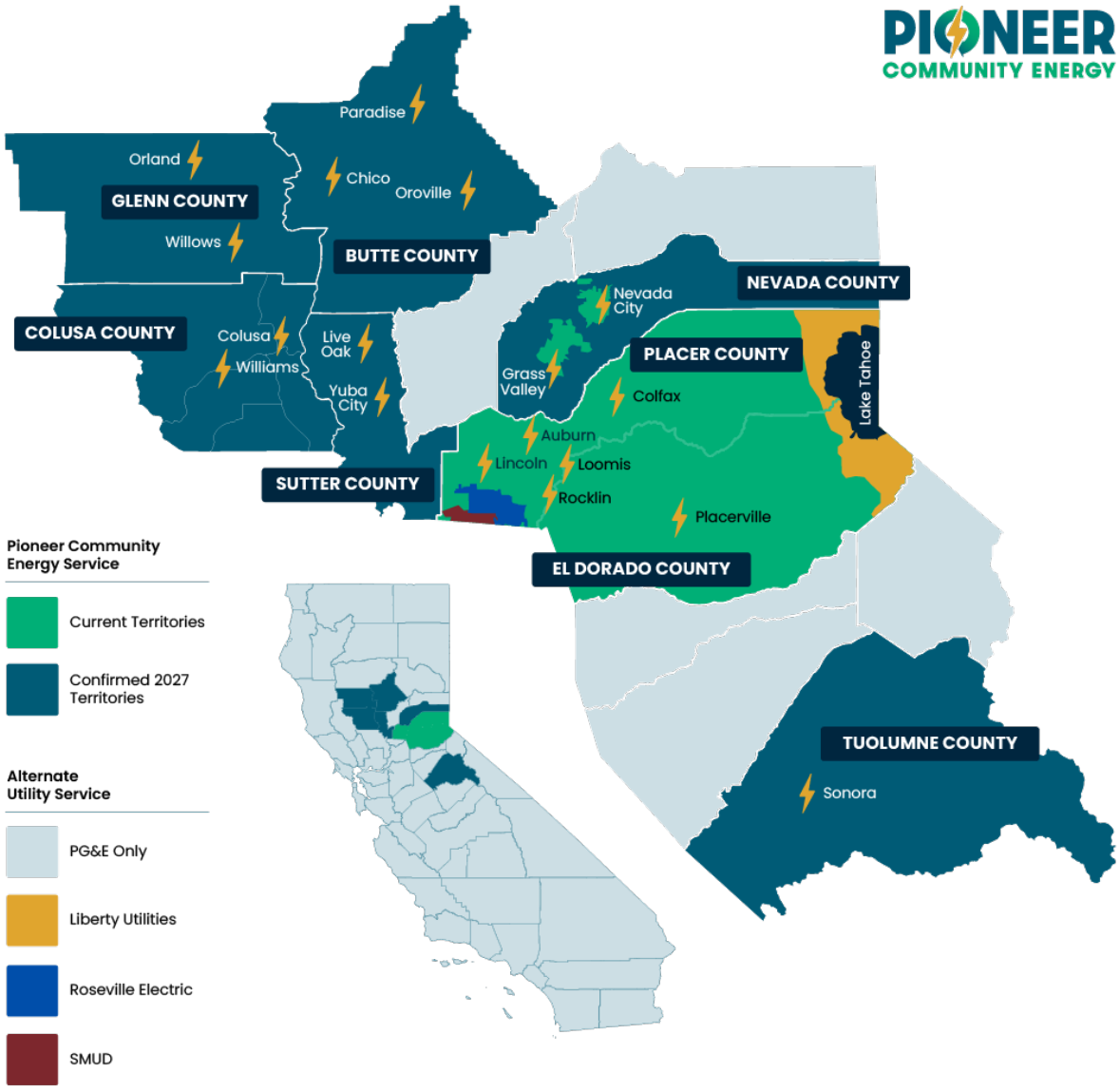
Pioneer currently provides retail electric generation services and complementary energy programs to customers in Pacific Gas and Electric Company ("PG&E") service territory within the municipal boundaries of the following communities:

- City of Rocklin
- City of Lincoln
- City of Auburn
- City of Colfax
- Town of Loomis
- City of Placerville
- Unincorporated Placer County
- Unincorporated El Dorado County
- City of Grass Valley
- Nevada City

Additionally, Pioneer is planning to expand its service to 16 new territories including the cities of Chico, Colusa, Live Oak, Orland, Orville, Sonora, Williams, Willows, and Yuba City; the Town of Paradise; and the counties of Butte, Colusa, Glenn, Nevada, Sutter, and Tuolumne, with service beginning in October 2027. In June 2025, Pioneer received certification from the California Public Utilities Commission ("CPUC") on its implementation plan for expansion. In March 2026, Pioneer received certification from the CPUC on its amended implementation plan to include the cities of Colusa and Williams, and the county of Colusa. The planned expansion will effectively double Pioneer's current service territory and require a proportionate doubling of the size of our procurement portfolio, which Pioneer staff are currently working to procure to serve our future load.

Pioneer's service area is identified in the following map:

Figure 1: Service Area Map



Pioneer currently serves approximately 148,000 residential accounts and 21,500 commercial and industrial accounts. Pursuant to its most recent Integrated Energy Policy Report ("IEPR") filing, Pioneer's 2026 forecasted peak load is 476 MW, with total energy usage of 1,753 GWh.

Pioneer's Mission

Pioneer was formed for the express purpose of empowering its member communities to choose the generation resources that reflect their specific values and needs. Pioneer seeks to provide reliable

electric service at a lower cost than offered by the incumbent electric utility and prioritizes economic development and environmental stewardship in its service territories.

Consistent with California Public Utilities Code ("PUC") Sections 366.2(a)(5) and 454.52 (b)(3)[1], all procurement by Pioneer, including the portfolios set forth in this Integrated Resource Plan ("IRP"), must comply with policy direction provided by Pioneer's governing board.

Introduction to Pioneer's IRP

In accordance with the requirements of California Public Utilities Code ("PUC") Sections 454.51 and 454.52 and California Public Utilities Commission ("Commission") Decisions ("D.") D.18-02-018 and D.22-02-004, Administrative Law Judge's Ruling Setting Requirements for Individual Integrated Resource Plans Due June 1, 2026[2], and guidance provided by the Commission's Energy Division[3], Pioneer is providing its load-serving entity ("LSE")-specific IRP to the Commission for certification and use in the Commission's statewide planning process.

In addition to this narrative, Pioneer's IRP includes the following documents:

- Pioneer's Resource Data Template
- Pioneer's Clean System Power Calculator
- Pioneer's IRP Verification

Pioneer is submitting a single Preferred Conforming Portfolio in this IRP, which achieves emissions that are equal to or less than the LSE's proportional share of the 8 million metric ton ("MMT") greenhouse gas ("GHG") target by 2045.

Projecting resource needs over the planning horizon covered by the IRP is a fluid process and Pioneer expects changes over time. The future resources identified in Pioneer's IRP represent Pioneer's current good-faith projection of the resource mix that will be procured over the IRP planning horizon. Such projections are based on best available information regarding planning directives, Pioneer policy, resource availability and other key considerations. The resources identified in future iterations of Pioneer's IRP may change due to new information and evolving circumstances, and the ultimate resource mix that Pioneer actually procures (in future years) may differ from what is reflected in this plan due to a number of variables, including availability of supply, technology changes, price of supply, and/or other market or regulatory developments.

Board Council Approval of IRP

In compliance with Public Utilities Code Section 454.52(b)(3), this IRP was formally submitted to the Pioneer's governing board for approval based on the IRP's compliance with Sections 454.51 and 454.52

[1] All further citations to statute are to the California Public Utilities Code ("PUC") unless otherwise noted.

[2] Rulemaking ("R.") 25-06-019, Administrative Law Judge's Ruling Setting Requirements for Individual Integrated Resource Plans Due June 1, 2026 ("Final Ruling"), January 16, 2026.

[3] Energy Division Guidance can be accessed at: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/2024-26-irp-cycle-events-and-materials.

(the "IRP Statute") and all relevant council-adopted procurement requirements of Pioneer's governing council. On July 23, 2026, the Pioneer's board adopted a Resolution which formally approved this IRP and adopted Pioneer's Preferred Conforming Portfolio ("PCP"). Pioneer's Resolution also made the following determinations regarding Pioneer's PCP:

- Pioneer's PCP is expected to achieve economic, reliability, environmental, security, and other benefits and performance characteristics that are consistent with the goals set forth in Section 454.52(a)(1)(A-I).
- Pioneer's PCP includes a diversified procurement portfolio consisting of both short-term and long-term electricity and electricity-related and demand reduction products.
- Pioneer's PCP achieves the resource adequacy (RA) requirements established pursuant to Public Utilities Code Section 380.
- Pioneer's PCP is consistent with the procurement timing, resource mix, and operational attributes of the 2025-2026 Transmission Planning Process Portfolio with updates ("System Reference Plan" or "TPP Portfolio").[4]
- Pioneer's PCP is compliant with all Pioneer board-adopted procurement directives.

A copy of the final Resolution is available on the Pioneer website.[5]

Request for Certification
Pioneer respectfully requests that the Commission certify this IRP.

As both the Legislature and the Commission have recognized, the Legislature has granted CCAs broad authority to procure resources on behalf of their respective customers, an authority limited only where "other generation procurement arrangements have been expressly authorized by statute."[6] Likewise, the Legislature has granted CCAs autonomy in setting their own rates and managing interactions with their customers.[7] Pioneer understands that the Commission has three primary interests in the CCA IRP process:

- Ensuring that CCA IRPs provide requisite procurement information needed by the Commission to develop its statewide plan.[8]

[4] In Decision 22-02-004 at 105 and Ordering Paragraph ("OP") 8, the Commission adopted the 30 MMT Core Portfolio with 2020 IEPR Demand and High Electric Vehicle ("EV") Penetration Scenario.

[5] *See Key Documents*, available at https://pioneercommunityenergy.org/about-us/key-documents/.

[6] PUC Section 366.2(a)(5).

[7] D.05-12-041 at 9-11 ("Nothing in the statute directs the CPUC to regulate the CCA's program except to the extent that its programs may affect utility operations and the rates and services to other customers. For example, the statute does not require the CPUC to set CCA rates or regulate the quality of its services… We are confident that existing law protects CCA customers. Entities of local government, such as CCAs, are subject to numerous laws that will have the effect of protecting CCA customers and promoting accountability by CCAs…").

[8] D.19-04-040 at 17-18 ("The Commission's portfolio aggregation and evaluation process, which relies of fulfillment of IRP filing requirements by LSEs, is the only process capable of assessing the overall needs

- Ensuring that CCAs' current and planned procurement is consistent with the RA requirements established pursuant to PUC Section 380.5.[9]
- Ensuring that CCAs' current and planned procurement satisfies the CCA's share of renewables integration resources identified in the Commission's System Reference Plan, and that the CCA either self-provides or pays for investor-owned utility ("IOU") procurement to support its share of any renewable integration shortfall.[10]

Pioneer has prepared its IRP with these interests in mind, and thanks the Commission for recognizing and preserving CCA procurement autonomy as well as the benefits of a collaborative planning approach with CCA organizations in its certification review of Pioneer's IRP.

Plan Summary

This narrative provides a detailed description of the development and content of Pioneer's PCP, the portfolio's compliance with applicable requirements, and an action plan detailing Pioneer's next steps (to promote conformance with such requirements).

Pioneer developed its IRP through the following steps:

- Pioneer compiled data for its existing energy contracts, including Voluntary Allocation Market Offer contracts from PG&E and GHG-free allocations from the Diablo Canyon Nuclear Power Plant, RA capacity contracts, and its share of capacity for allocated Cost Allocation Mechanism ("CAM") resources.
- For each IRP planning year, Pioneer identified its short positions relative to known planning targets and its assigned load forecast.
- Pioneer populated the Resource Data Template with all current contracts.
- Pioneer compiled detailed information on projects for which it is currently negotiating power purchase agreements, including information regarding project status and timing.
- Pioneer identified future contracts it expects to secure for new solar, storage, geothermal, hybrid and wind generation. Pioneer prioritized the selection of future resources to ensure that Pioneer's overall portfolio of new resources is varied, is feasible in terms of resource availability, meets all regulatory goals, meets the goals expressed by Pioneer's governing board, and is estimated to minimize costs to customers, subject to applicable mandates. Pioneer added generic future contracts with existing resources, including renewable and large hydroelectric generators, to help fill its remaining open positions.
- Pioneer used the Commission's Clean System Power Calculator Tool to check the GHG emissions associated with the resulting portfolio to ensure that these emissions are less than Pioneer's assigned GHG emissions benchmarks in 2035 and 2045; Pioneer added planned purchases of additional energy from renewable or GHG-free resources in sufficient volume to ensure that portfolio emissions were less than Pioneer's assigned GHG benchmark.

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of the CAISO grid and meeting the statewide GHG, reliability, and least-cost goals collectively. While LSEs may use their IRP process to meet local planning needs as well, the statewide planning function is the statutorily required process . . .").

[9] Section 454.52(b)(3)(C).

[10] Section 454.51.

- Pioneer evaluated the portfolio for reliability by comparing the total portfolio capacity against Pioneer's RA requirements as shown in the Reliability tab in the RDT and adding sufficient RA capacity contracts to ensure reliability. Pioneer further established that its planned incremental capacity procurement met or exceeded its assigned shares of the various incremental capacity procurement obligations.
- Pioneer identified the resulting portfolio as its PCP.

Pioneer reached the following findings regarding its PCP:

- Pioneer's PCP includes the procurement of the following new resources throughout the planning period:
    - New solar resources totaling 2,113 MW
    - New battery storage resources totaling 1,677 MW
    - New wind resources totaling 466 MW
    - New geothermal resources totaling 15 MW
    - New biomass resources totaling 50 MW

- Pioneer's PCP provides for the following overall resource mix in 2045:
    - 401 GWh of Large Hydro
    - 188 GWh of Hybrid/Collocated
    - 113 GWh of Geothermal
    - 377 GWh of Biomass
    - 1,384 GWh of Wind
    - 4,979 GWh of Solar
    - 9,237 GWh of Battery Storage Discharge Capability
    - 125 MW of utility capacity resources allocated under the Cost Allocation Mechanism

- Pioneer's PCP is consistent with procurement timing, resource quantities, and general resource attributes identified in the System Reference Plan.
- Pioneer's PCP would have GHG emissions of 0.344 MMT, 0.222 MMT, 0.181 MMT, and 0.122 MMT in 2030, 2035, 2040, and 2045, respectively, which is equivalent to or less than Pioneer's assigned GHG benchmarks for those years.
- Pioneer's PCP meets all relevant reliability metrics.
- Pioneer's PCP is consistent with the Commission's System Reference Plan and can be used in an 8 MMT (2045) consolidated statewide portfolio.

To implement its PCP, Pioneer is adopting the action plan described in Section IV, below. This action plan consists of the following steps:

- Pioneer will periodically solicit offers for new renewable generation and storage projects. These resources are typically secured through long-term power purchase agreements. Pioneer expects to secure power purchase agreements for new projects in multiple solicitations conducted over the next several years.
- Periodically throughout the year, Pioneer will solicit offers for short-term renewable energy, resource adequacy, system energy, and other products needed to balance the portfolio and

adhere to position limits established through Pioneer's risk management policy and practices. These solicitations may take the form of a formal request for offers processes, bilateral discussions, and/or transactions arranged through broker markets.

- Pioneer will continue to procure resources to meet any remaining assigned requirements from D.19-11-016, D.21-06-035, D.23-02-040, and D.26-02-057 as well as the specific sub-categories from those decisions.

II. Study Design

a. Objectives

Pioneer had the following objectives in performing the analytical work to develop its IRP:

1. Identify a PCP with lower emissions than Pioneer's assigned GHG emissions benchmarks, as determined using the Commission's emissions calculator.
2. Identify a PCP that achieves economic, reliability, environmental, security, and other benefits and performance characteristics that are consistent with the goals set forth in Section 454.52(a)(1)(A-I).
3. Identify diverse and balanced PCP that includes both short-term and long-term electricity products as well as electricity-related demand reduction products.
4. Identify a PCP that achieves the resource adequacy requirements established pursuant to PUC Section 380 and provide Pioneer's share of system reliability and renewable integration resources.
5. Identify a PCP that complies with all of Pioneer's Board-adopted procurement directives.
6. Identify a PCP that is compliant with Pioneer's obligations under the Renewables Portfolio Standard ("RPS") program.
7. Identify a PCP that is cost-effective and minimizes rate impacts on Pioneer's customers.

b. Methodology

i. Modeling Tool(s)

In developing its planned portfolios, Pioneer used the inputs, assumptions, and modeling performed by the Energy Division using RESOLVE and SERVM to identify candidate resources and portfolio characteristics needed to meet the assigned GHG benchmarks. Internal models were used to assess open positions and to incorporate RESOLVE/SERVM planning assumptions to specify a mix of planned resources, including considerations relating to the timing of resource acquisition, the type of resources acquired, and the assumed mix of procurement of new vs. existing resources. The RDTv3 and CSP templates were used to test the portfolio for reliability and GHG emissions. Pioneer assessed its resulting physical and financial positions for conformance with Pioneer's risk management policies and business practices.

Pioneer utilizes a commercial energy trading and risk management system to monitor its positions, market exposure, credit exposure, value-at-risk, and other risk management metrics. Pioneer used the

outputs of its energy trading and risk management system to develop reports and data which were then analyzed to assess annual, monthly, and hourly open positions by considering all forecasted electric loads and expected deliveries from Pioneer's resource portfolio. Pioneer also used a proprietary financial model to project power supply costs based on existing and planned procurements as well as an overall financial assessment of revenues, costs, and cash flows. Current market conditions were considered when compiling any costs associated with expected/planned purchases; actual costs, based on existing procurement contracts, were incorporated as appropriate, and RESOLVE cost assumptions were used for new candidate resources.

ii. Modeling Approach

The modeling approach was to identify a portfolio of resources that meets the objectives outlined above and that considers resource availability under the assumption that other LSEs would procure in a manner consistent with the 2025-2026 TPP Portfolio with updates. Pioneer relied on the 2025 Inputs and Assumptions documentation for information on expected cost and availability of new candidate resources and used this information to guide selection of technology types and timing of procurement for the new resources in the portfolio. Overall renewable energy and carbon-free energy content follows a trajectory towards 98% and 112% by 2045, which were the levels deemed necessary to meet or beat the assigned GHG limits.

Load Forecast

Pioneer developed this IRP using its assigned load forecast from the file Load Forecasts + GHG Benchmarks document published by the CPUC on 1/16/26[11] (also contained in the CSP templates), as directed in the *Final Ruling*. This forecast is shown in Table 1 below.

Table 1: Pioneer's 2026-2045 Load Forecast (GWh)

Year	Load Forecast
2026	1,768.05
2027	2,234.26
2028	3,644.54
2029	4,112.03
2030	4,311.92
2031	4,499.41
2032	4,698.84
2033	4,904.00
2034	5,120.84
2035	5,334.68
2036	5,505.49
2037	5,660.41
2038	5,802.94
2039	5,934.16
2040	6,055.84

[11] See *Load Forecasts + GHG Benchmarks* (January 16, 2026) (hereinafter, "GHG Benchmarks"), *available at* https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/2024-26-irp-cycle-events-and-materials.

2041	6,166.34
2042	6,279.04
2043	6,378.30
2044	6,455.04
2045	6,519.29

Load Shape

In developing its portfolio Pioneer used the default load shape from the Clean System Power Calculator. Use of this load shape does not change Pioneer's total annual energy volumes for both load and load modifiers, and these energy volumes remain consistent with Pioneer's assigned load forecast.

Load-Proportional GHG Emissions Benchmark

Pioneer's modeling was assessed against its 2030, 2035, 2040 and 2045 assigned GHG emissions benchmarks, which are shown below in Table 2:

Table 2: Pioneer's Assigned Shares of GHG Reduction Benchmarks (MMt/yr)

2030	2035	2040	2045
0.348	0.276	0.236	0.123

Compiling Existing Resources

To populate its baseline resource templates, Pioneer included existing resources from the following procurement categories:

- Energy contracts.
- Capacity (Resource Adequacy) contracts.
- Pioneer's assigned share of capacity for CAM resources.
- Pioneer's selected Voluntary Allocation and Market Opportunities ("VAMO") allocation of RPS resources from Pacific Gas and Electric Company ("PG&E")
- Pioneer's allocation of GHG-free resources from the PG&E Hydro and Diablo Canyon Nuclear Power Plant

Contracts using existing resources are a combination of those currently under contract (existing contracts) and potential future contracts (planned contracts). Reliance on planned purchases from existing resources was constrained to a small portion of the overall portfolio in recognition of the need that significant development of new resources will be necessary to meet the State's GHG reduction goals and that contracting opportunities with existing resources may become increasingly scarce.

Selecting New Resources

To identify its new resource procurement opportunities, Pioneer first determined the new resource capacity it intends to add each year and considered candidate resources based on assessments of availability, cost, and portfolio fit. Planned purchases were grouped into distinct tranches for modeling purposes, although actual procurement will likely occur on a more continuous basis. A variety of factors were considered in determining the size and composition of the new resource procurement tranches reflected in the plan. These factors include resource needs (i.e., open positions relative to planning

targets), renewable portfolio standards including long-term renewable contracting requirements, resource adequacy requirements, the need for incremental resource adequacy capacity to contribute to system reliability and renewable integration needs (e.g., incremental procurement orders), the potential for technological improvements over time, cost/customer impacts, and risk considerations. Pioneer assessed resource availability based on the CPUC's planning assumptions and inputs and used this information to help guide the timing of procurement of various generation resource types. The CPUC's RESOLVE modeling helped guide Pioneer's selection of new resource types, as did its experience with competitive solicitations for new renewable and storage resources and its experience in procuring resource adequacy resources.

Confirming Reliability

Pioneer's portfolios were evaluated to ensure that sufficient dependable capacity (net qualifying capacity) would be available to meet peak load requirements, as shown in the RDTv3. These requirements include procuring sufficient net qualifying capacity to meet the Planning Reserve Margins applicable to each year of the planning period. Pioneer used technology-specific Effective Load Carrying Capacity ("ELCC") factors from the RDT to assess the contribution of each resource to system reliability. The ELCCs for battery storage resources degrade precipitously during the planning period, which means that battery resources provide less net qualifying capacity per MW of nameplate capacity. To ensure that its portfolio met the reliability requirements in each year of the planning period, Pioneer added sufficient short-term RA capacity as needed to supplement capacity from its long-term portfolio. Pioneer's portfolio was designed to ensure that current incremental resource adequacy capacity obligations from the various CPUC procurement orders will be met.

Calculating GHG Emissions

Pioneer calculated the emissions associated with its PCP using the Commission's Clean System Power calculator. The assigned load forecast and default load shapes and behind-the-meter adjustments were used for this assessment, along with the planned supply portfolios. Pioneer used standard resource profiles from the Clean System Power calculator. The resulting emissions in each year were checked against the assigned GHG benchmarks.

iii. Alternative Assumptions

Pioneer did not use alternative assumptions in developing its PCP.

III. Study Results

a. Conforming and Alternative Portfolios

As required by the Commission, Pioneer is submitting a preferred conforming portfolio that achieves Pioneer's share of the 2030, 2035, 2040, and 2045 GHG targets. Pioneer is not submitting alternative portfolios.

Pioneer's Preferred Conforming Portfolio

Table 3 provides a summary of Pioneer's PCP, identifying resources by type and distinguishing between the following procurement categories:

- Existing resources (energy and capacity) that Pioneer owns or contracts with, consistent with definitions provided in the Resource Data Template.
- Existing resources (energy and capacity) that Pioneer plans to contract with in the future.
- Existing resources (capacity) that Pioneer partially pays for through CAM.
- New Resources (energy and capacity) that are under development that Pioneer is planning to procure.
- Future new resources (energy and capacity) that Pioneer is planning to procure.

Table 3: Summary of 2045 PCP

Resource Category	Under Development	Online	Planned Existing	Planned New	Under Review	Total
Battery Storage (GWh Energy Capacity)	—	—	—	9,237	—	9,237
Biogas (GWh)	—	0	—	61	—	61
Biomass (GWh)	—	—	—	316	—	316
Geothermal (GWh)	—	0	—	113	—	113
Hybrid or Paired Solar and Battery (GWh)	188	—	—	—	—	188
Large Hydro (GWh)	—	0	401	—	—	401
Solar California (GWh)	—	—	248	4,732	—	4,980
Wind California (GWh)	—	1	62	368	—	431
Wind New Mexico (GWh)	—	—	—	413	—	413
Wind Wyoming (GWh)	—	—	—	541	—	541

In summary, to meet Pioneer's projected 2045 energy demand, Pioneer has selected a Conforming Portfolio composed primarily of the following resources by 2045:

- Solar, planned existing: 248 GWh
- Solar, planned new: 4,732 GWh
- Hybrid/Collocated: in development 188 GWh
- Wind, planned existing: 62 GWh
- Wind, CA, planned new: 368 GWh

- Wind, New Mexico, planned new: 413 GWh
- Wind, Wyoming, planned new; 541 GWh
- Large Hydro, planned existing: 401 GWh
- Geothermal, planned new: 113 GWh
- Biomass/biogas, planned new: 377 GWh
- Battery storage, new: 9,237 GWh dispatch capability

Additionally, Pioneer's PCP includes capacity-only resources composed primarily of the following resources:

- Cost Allocation Mechanism (CAM) capacity resources: 125 MW

Pioneer's portfolio includes a mix of existing and new resources, with new resources dominating the portfolio by 2045. Pioneer's PCP is comprised of a mix of resources in which Pioneer can minimize customer rate impacts while still achieving the State's GHG-reduction targets.

Pioneer's PCP Is Consistent with the 2025-2026 TPP Portfolio

The new resources included in Pioneer's CPP are consistent with the 2025-2026 TPP Portfolio new resource mix as demonstrated in the following table:

Table 4: Comparison of Pioneer's PCP New Build Resources to the 2025-2026 TPP Portfolio

Resource Category	TPP Portfolio (MW)	Pioneer's Proportional Share of TPP New Resources (MW)	Pioneer's PCP (MW)
Geothermal	3,230	78	15
Geothermal (Enhanced)	674	16	0
Biomass	12	0	50
In-State Wind	10,949	263	160
Out-of-State Wind	19,036	457	307
Offshore Wind	-	0	0
Solar	82,732	1,986	2,113
Li-ion Battery (4-hr)	6,758	162	677
Li-ion Battery (8-hr)	21,102	506	1,000
Location Constrained Storage (12-hr)	8,499	204	0

Overall, Table 4 shows that Pioneer's PCP is broadly consistent with Pioneer's proportional share of the TPP new-resource build, with the same core technology set (solar, wind, and storage) providing the bulk of new supply. The primary differences are that: (1) the PCP includes more biomass than the proportional TPP share; (2) the PCP relies materially more on battery storage—both 4-hour and longer-duration (8-hour) storage; and (3) the PCP includes less in-state wind and out-of-state wind than does the proportional share. The PCP also does not assume Enhanced Geothermal (0 MW versus a small proportional share) and does not include the location-constrained 12-hour storage category included in the TPP due to uncertain cost and availability considerations. Taken together, these differences reflect Pioneer's emphasis on resources that best match its expected net-load profile and reliability needs as well as resource availability, while maintaining overall alignment with the statewide planning direction reflected in the TPP.

The contracted and planned resources for Pioneer's PCP are summarized as follows:

- **CAM - DR Allocation** — Pacific Gas & Electric CAM allocation, existing demand response, online, 2023-2045.
- **CAM - Storage** — Pacific Gas & Electric CAM allocation, existing generic battery storage, online, 2023-2045.
- **Other CAM** — Pacific Gas & Electric CAM allocation, existing combined-cycle gas, online, 2023-2045.
- **Edwards Sanborn Solar IV_PCC1_LT_1_Pioneer** — TERRAGEN, existing generic 1-axis solar, online, 2021-2036.
- **Enterprise V_PCC1_1_LT_Pioneer** — TERRAGEN, new generic 2-axis solar (paired solar+storage project), SCE area, in development, 2027-2042.
- **Enterprise V_PCC1_BESS_Pioneer** — TERRAGEN, new generic battery storage (paired solar+storage project), SCE area, in development, 2027-2042.
- **Chalan_PCC1_1_LT_Pioneer** — ORIGIS, new generic 2-axis solar (paired solar+storage project), PG&E area, in development, 2026-2046.
- **Chalan_PCC1_BESS_LT_Pioneer** — ORIGIS, new generic battery storage (paired solar+storage project), PG&E area, in development, 2026-2046.
- **Janus_PCC1_1_LT_Pioneer** — RWE, new generic 2-axis solar (paired solar+storage project), PG&E area, in development, 2027-2042.
- **Janus_PCC1_BESS_LT_Pioneer** — RWE, new generic battery storage (paired solar+storage project), PG&E area, in development, 2037-2042.
- **Yellow Pine_PCC1_LT_Pioneer** — NEXTERA, new generic 2-axis solar (paired solar+storage project), SCE area, online, 2024-2044.
- **Yellow Pine_PCC1_BESS_Pioneer** — NEXTERA, new generic battery storage (paired solar+storage project), SCE area, online, 2024-2044.
- **Lockhart_PCC1_1_LT_Pioneer** — JUNIPER, new generic 2-axis solar (paired solar+storage project), SCE area, in development, 2027-2047.
- **Lockhart_PCC1_BESS_Pioneer** — JUNIPER, new generic battery storage (paired solar+storage project), SCE area, in development, 2027-2047.
- **Harper_PCC1_1_LT_Pioneer** — JUNIPER, new generic 2-axis solar (paired solar+storage project), SCE area, in development, 2027-2047.
- **Harper_PCC1_BESS_Pioneer** — JUNIPER, new generic battery storage (paired solar+storage project), SCE area, in development, 2027-2047.
- **SENA_PCC1_1_LT_Pioneer** — SHELL, existing generic wind, California, online, 2019-2030.
- **Calpine_PCC1_LT_1_Pioneer** — CALPINE, existing generic geothermal, California, online, 2022-2031.
- **SENA_PCC1_1_LT_Option_Pioneer** — SHELL, existing generic 2-axis solar, California, online, 2020-2031.
- **EID_PCC1_LT_1_Pioneer** — EID, existing in-state small hydro, California, online, 2021-2031.
- **SENA_PCC1_2_LT_Pioneer** — SHELL, existing generic 2-axis solar, California, online, 2024-2037.

- **SENA_PCC1_3_Pioneer** — SHELL, existing generic 2-axis solar, California, online, calendar year 2026.
- **CALPINE_RA_12_NCF_Pioneer** — CALPINE, SMUDGO_7_UNIT 1, online, 2022-2031.
- **CALPINE_RA_15_NS_Pioneer** — CALPINE, GILRPP_1_PL3X4, online, 2022-2028.
- **EID_RA_1_Si_Pioneer** — EID, ELDORO_7_UNIT 1, online, 2021-2031.
- **LEAP_RA_2_NS_Pioneer** — LEAPFROG, DR - TBD, online, 2022-2032.
- **CALPINE_RA_28_NSF_Pioneer** — CALPINE, LMEC_1_PL1X3, online, 2023-2030.
- **CALPINE_RA_29_NS_Pioneer** — CALPINE, GILROY_1_UNIT, online, 2022-2030.
- **SENA_RA_4_NS_Pioneer** — SHELL, SANDRN_2_SS2SR2, online, 2024-2037.
- **Marsh Landing LLC_RA_1_BAF_Pioneer** — MARSH LANDING, COCOPP_2_CTG4, online, 2023-2026.
- **NRG_RA_5_NS_Pioneer** — FIFTH STANDARD, FIFTHS_2_FSSBT, Fresno County, Greater Fresno area, online, 2023-2033.
- **SENTINEL_RA_1_LF_Pioneer** — SENTINEL, SENTNL_2_CTG1, online, 2024-2027.
- **DIRECT_RA_5_NSF_Pioneer** — NRG, FIFTHS 2 FSSBT, online, 2023-2033.
- **DIRECT_RA_6_NSF_Pioneer** — NRG, FIFTHS 2 FSSBT, online, 2023-2026.
- **LongBeach_RA_1_SSF_Pioneer** — LONG BEACH, HINSON_6_LBECH1, online, 2025-2030.
- **CALPINE_RA_39_NS_Pioneer** — CALPINE, GEYS20_7_UNIT20, online, 2026-2035.
- **CALPINE_RA_39_NSF_Pioneer** — CALPINE, GEYS20_7_UNIT20, online, 2026-2035.
- **WGP_RA_1_SS_Pioneer** — WGP, BDGRCK_1_UNITS, online, 2026-2030.
- **BALSAM_RA_1_SSF_Pioneer** — BALSAM, new generic battery storage, in development, 2028-2048.
- **GASKELL_RA_1_SS_Pioneer** — GASKELL, new generic battery storage, in development, 2026-2036.
- **SENA_RA_6_NSF_Pioneer** — SHELL, FIFTHS_2_FSSBT, online, calendar year 2026.
- **PG&E_Nuke_1_Pioneer** — existing nuclear, online, 2025-2030.
- **PG&E_Hydro_2_Pioneer** — existing in-state large hydro, online, 2025-2045.
- **SENA_CF_2_Pioneer** — SHELL, existing in-state large hydro, online, calendar year 2026.
- **PG&E VAMO PCC0 allocation** — PG&E VAMO/CAM allocation, basket of existing resources (2-axis solar, biogas / landfill gas, biomass / wood, in-state small hydro, wind), online, 2023-2045.
- **PG&E VAMO PCC1 allocation** — PG&E VAMO/CAM allocation, basket of existing resources (2-axis solar, biogas / landfill gas, geothermal, in-state small hydro, wind), online, 2023-2043.
- **Generic CCGT RA (2026–2034)** — Annual generic combined-cycle gas RA placeholders, planned existing-resource procurement, one-year terms covering 2026-2034.
- **LT Storage_D.26_4** — D.21-06-035 / mid-term reliability battery storage procurement, planned new build, 2030-2052.
- **LT LD Storage_D.26_8** — D.21-06-035 / mid-term reliability long-duration battery storage procurement, planned new build, 2032-2052.

- **LT Storage (long-term tranches)** — Series of long-term new generic battery storage procurements, planned new build, with COD years 2030-2045 and contract end years 2050-2060.
- **LT Geothermal 2** — Long-term new generic geothermal procurement, planned new build, 2035-2055.
- **LT Biomass (long-term tranches)** — Series of long-term new generic biomass procurements, planned new build, 2035-2055.
- **LT Biogas** — Series of long-term new generic biogas procurements, planned new build, 2035-2055.
- **LT Solar (long-term tranches)** — Series of long-term new generic 1-axis solar procurements, planned new build, with COD years 2030-2045 and contract end years 2050-2060.
- **LT Wind CA 2** — Long-term new generic in-state wind procurements planned new build, 2035-2055.
- **LT Wind Out of State (long-term tranches)** — Series of long-term new generic out-of-state wind (New Mexico and Wyoming) procurements, planned new build, with COD years 2030-2045 and contract end years 2050-2060.
- **ST (short-term) existing-resource procurements** — Planned short-term procurement of existing 1-axis solar, in-state large hydro, wind, 2028-2045.

b. Preferred Conforming Portfolio

As stated above, in accordance with Section 454.51(b)(3), Pioneer's governing board has determined that the resource mix in its PCP achieves "economic, reliability, environmental, security, and other benefits and performance characteristics that are consistent with the goals set forth in [Section] 454.51(a)(1)]." These benefits and characteristics are discussed as follows. These benefits and characteristics are discussed in the following sections.

GHG Reduction Goals

Pioneer's PCP achieves results and performance characteristics consistent with the Section 454.52(a)(1)(A) goal of meeting the Commission's GHG reduction benchmarks. The 2030, 2035, 2040 and 2045 emissions from Pioneer's PCP are below Pioneer's assigned emissions targets. Pioneer's GHG targets and PCP GHG portfolio emissions are shown in the table below:

Table 5 GHG Emissions Benchmark (MMT)

2030	2035	2040	2045
0.348	0.276	0.236	0.123

Renewable Energy

Pioneer's PCP achieves results and performance characteristics consistent with the Section 454.52(a)(1)(B) goal of ensuring that portfolios are composed of at least 60% eligible renewable resources. In 2030 Pioneer's PCP portfolio would consist of 67% eligible renewable generation, after accounting for resource curtailments, which exceeds the 60% requirement. In 2045, Pioneer's PCP portfolio would consist of 98% eligible renewable generation after accounting for resource curtailments.

Enable Each Electrical Corporation to Fulfill Its Obligation to Serve Customers at Just and Reasonable Rates

Not applicable.

Minimizing Bill Impact

Pioneer's PCP achieves results and performance characteristics consistent with the Section 454.52(a)(1)(D) goal of minimizing the impact of planned procurement on ratepayers' bills. Pioneer's PCP portfolio consists primarily of renewable resources that generally support a least-cost, best-fit procurement strategy.

Pioneer prioritizes cost competitiveness, reliability, use of renewable energy and local economic development amongst its primary concerns. Pioneer anticipates that bill impacts will be minimized during its planned portfolio transition through the pursuit of a diversified resource mix that seeks to minimize exposure(s) that could otherwise occur by overemphasizing resources located within specific geographic areas, relying on a limited subset of technology types and/or purchasing from a limited pool of suppliers/developers, amongst other considerations.

Pioneer also considers the risks associated with certain renewable-only generating configurations that limit the buyer's ability to re-shape deliveries to times of the day when negative prices and, possibly, curtailments are less likely to occur. With this concern in mind, Pioneer has carefully considered and incorporated energy storage opportunities within its resource mix, which should promote grid reliability during California's transition to an increasingly clean/renewable energy mix while reducing the potential for unforeseen costs (due to negative pricing) and/or reduced renewable energy deliveries related to curtailment. For example, coupling new-build solar with battery storage increases the capacity value of such projects and provides limited dispatchability for the solar generation, reducing risks related to curtailment and negative pricing. Pioneer's predominantly fossil-free PCP reduces exposure to volatile natural gas prices as well as bill impacts that may result from periodic spikes in fossil fuel prices.

Ensuring System and Local Reliability

Pioneer's PCP achieves results and performance characteristics consistent with the Section 454.52(a)(1)(E) goal of ensuring system and local reliability. The PCP meets system resource adequacy requirements as detailed in Section III.f. Pioneer's portfolio assumes CAM allocations and CAM resources, consistent with what is described in the most recently issued CAM allocations. When possible, Pioneer prioritizes procurement in local areas to strengthen local reliability.

As it has done in the past, and as shown in most state planning studies, Pioneer anticipates that it will meet a portion of its reliability needs during the planning period through capacity-only contracts with natural gas plants. This finding is consistent with the CPUC's RESOLVE/SERVM modeling showing the need to maintain existing fossil-fueled resources online for reliability purposes as well as the declining ELCC factors for storage resources shown by these studies. Pioneer's PCP includes a significant expansion of grid-connected battery storage resources which will support system and local reliability.

Ensure that at least 65% of RPS Procurement is From Long-Term Contracts

Consistent with Section 454.52(a)(1)(F), Pioneer is on pace to meet the requirement that 65% of its RPS procurement must come from contracts of 10 years (long-term or more for each compliance period.

Additionally, the significant majority of the resources shown in Pioneer's PCP are expected to be acquired through long-term contracts. Pioneer will continue to procure renewable energy through short-term contracts when opportunities present themselves for cost-efficient procurement and when doing so would reduce any remaining dependency on system power, but the bulk of the portfolio is planned to be secured via long-term contracts.

Strengthen the diversity, sustainability, and resilience of the bulk transmission and distribution systems, and local communities

Pioneer's PCP achieves results and performance characteristics that strengthen the diversity, sustainability and resilience of the bulk transmission and distribution systems, as well as local communities, meeting Section 454.52(a)(1)(G). Pioneer's PCP relies on procurement from a variety of resource types as well as storage resources incorporated in hybrid solar and storage configuration. Pioneer believes that the complementary nature of the solar and storage in hybrid resources makes better use of the existing transmission system. Pioneer carefully evaluates the long-term generation load-matching and congestion risks of new resources and weighs its options in the context of its existing supply and net demand on an hourly basis for the full duration of any contract period.

As described below, Pioneer is actively pursuing the procurement of or has recently purchased capacity to meet the sub-category requirements of D.21-06-035 and D.26-02-057, which includes long-duration storage, clean-firm resources like geothermal, and resources to replace the Diablo Canyon Power Plant. Additionally, Pioneer has recently procured demand response capacity resources, providing additional system diversity. Finally, the significant transition away from use of fossil fuels enhances the sustainability of all communities impacted by pollution from these resources.

Distribution Systems Demand-Side Energy Management

Pioneer's PCP achieves results and performance characteristics consistent with the Section 454.52(a)(1)(G) goal of enhancing distribution systems and demand-side energy management. Pioneer continues to explore and pursue demand-side management programs such as demand response, energy efficiency, and behind the meter energy storage solutions. These resources help reduce the strain on distribution systems as can help defer capital expansion needs. As part of Pioneer's procurement toward D.21-06-035, as discussed in more detail in Section IV.a.ii., Pioneer has contracted for demand response resources to meet a portion of its requirements.

Distribution system energy generation: As a CCA operating in the PG&E service territory, Pioneer does not own or operate transmission or distribution facilities. We therefore rely on materials provided by PG&E and CAISO – and collaborate with project developers – to identify interconnection locations that can use existing transmission and distribution capacity with minimal upgrades. Consistent with Pioneer's organizational goals, in our 2026 IRP, Pioneer will continue to pursue and prioritize new resources sited in or near our service area and more broadly within Northern California.

Pioneer's efforts with distribution system energy generation include microgrid projects, its GridGen program, and participation in the Bioenergy Market Adjusting Tariff (BioMAT) program.

Pioneer's customers are heavily burdened with reliability issues associated with Public Safety Power Shutoffs (PSPS), Enhanced Powerline Safety Settings (EPSS), and other extreme weather events. Pioneer sees microgrids as the solution. In 2025, Pioneer applied to Pacific Gas & Electric's (PG&E's) Microgrid Incentive Program (MIP) to develop microgrids in Pioneer communities that are disadvantaged and vulnerable, are in high-fire threat zones, and are prone to power outages. Pioneer submitted four

applications for projects in Georgetown, Foresthill, Nevada City, and Grass Valley. The projects in Georgetown and Foresthill utilize biomass and battery storage, and the projects in Nevada City and Grass Valley utilize solar and battery storage. Although Pioneer is uncertain if any of its applications will receive a MIP award grant funding, it is hopeful that one or two projects will receive a MIP award and grant funding. Pioneer will continue to evaluate locations, funding mechanisms, and developers and organizations for microgrid development that will allow communities affected by power outages to be grid resilient. For Pioneer, microgrids offer an opportunity to prioritize resources in its communities by procuring the excess energy from microgrids while helping to enable energy resilience in areas that would most benefit from it. Pioneer is focused on deployment of biomass baseload generation or solar-plus-storage systems which can directly serve the local load, fulfilling some of Pioneer's baseload and peak load obligations.

Pioneer's GridGen program is designed to support residential customers interested in installing energy storage distributed energy resources. GridGen provides a solar-plus-storage system, or battery retrofit to a current system, with no up-front cost and no credit underwriting. The program focuses on deploying battery packs at the residential level which provides residents with storage resources that can be island for enhanced reliability at the customer level. This program actively looks to reduce Pioneer Community Energy's peak load demand while benefiting its customers by providing rate stability and added reliability over 25 years.

Lastly, Pioneer has executed six BioMAT PPAs for biomass projects in and around its service territory. The projects are in the counties of Nevada, Butte, Yuba, Mariposa, Plumas, and Calaveras, and consist of five Category 3 biomass facilities and one Category 2 (other Ag) biomass facility. These biomass projects will not only generate power but also help mitigate wildfires by removing excess, high-fire risk vegetation from forests.

We will continue to work with member agencies to identify sites that align with local zoning, climate action plans, and community preferences while minimizing interconnection costs and construction impacts, despite the current constraints and limitations with existing distributed generation interconnection processes in our service area. Pioneer solicits distribution connected systems both through our Local Solar Feed-in Tariff program and through RFPs, and also finds grants to match locations and developers for potential distribution connected systems projects. Pioneer will continue to aggressively pursue such opportunities where aligned with Pioneer's broader mission and goals.

Demand side management: Our 2026 IRP treats demand-side energy management as a planning tool in Pioneer's toolbox. Pioneer currently offers an event-based demand response program for its residential customers called PowerShift Rewards. PowerShift Rewards is a program which incentivizes customers to reduce demand in the peak hours in response to Pioneer-called events or to larger scale events-based CAISO Flex Alerts. Pioneer also offers its Hourly Flex Pricing pilot program, to its agricultural customers. Hourly Flex Pricing is a dynamic rate program where electricity prices vary hourly based on a seven-day forecast. While PowerShift Rewards aims to address the most critical demand spikes by residential customers, Hourly Flex Pricing aims to shape load on a regular basis with its agricultural customers.

Pioneer is looking to offer additional demand-side management programs to its customers in 2027, building off our current suite of programs. Overall, these programs aim to shift load off the peak hours throughout the year and during extreme seasonal events. Current programs under evaluation, but not implemented, include:

- Commercial building event-based load management and energy efficiency.
- Commercial EV charging management leveraging dynamic rates and participation incentives.
- Residential EV charging management leveraging dynamic rates and participation incentives.
- Bidirectional electric school bus charging management and grid support pilot program.
- exploring the expansion of its GridGen program to commercial customers and to a broader strategy of evaluating Virtual Power Plant (VPP) opportunities, leveraging distributed energy resources to create value for customers while supporting grid reliability and flexibility.

Pioneer's goals with these initiatives are consistent with the State's broader goals for demand side management, including improving local reliability and lowering costs for customers in the local area, with particular focus on disadvantaged and climate-vulnerable communities. Pioneer also anticipates analyzing time-of-use rates in the coming years to determine if further shifts in usage – away from net-peak hours and reducing reliance on system power – can be achieved through rate design. Pioneer's programs are currently in the early stages of implementation and do not yet offer material adjustments to load or power supply, but we continue to review program and rate performance and adjust procurement efforts to reflect the impacts of these programs on an ongoing basis. Additionally, as a part of Pioneer's procurement toward D.21-06-035, as discussed in more detail in Section [IV.a.ii.], Pioneer has contracted for demand response resources to meet a portion of its Mid-Term Reliability requirements.

Minimizing Localized Air Pollutants with Emphasis on Disadvantaged Communities ("DACs")

Pioneer's PCP achieves results and performance characteristics consistent with the Section 454.52(a)(1)(I) goal of minimizing localized air pollutants and other GHG emissions with early priority on disadvantaged communities. Pioneer's PCP relies primarily on renewable generation, and this portfolio is expected to exhibit relatively low GHGs and localized air pollution emissions. Pioneer's PCP minimizes Pioneer's reliance on unspecified system power, instead opting for renewable and hydroelectric generation procurement and/or development whenever feasible. Results from the CSP tool indicate the following localized air pollutants associated with Pioneer's PCP in 2045:

- PM 2.5: 144 tonnes/year
- SO2: 59 tonnes/year
- NOx: 334 tonnes/year

These emissions are expected to result from the planned use of small quantities of system energy as well as emissions from Combined Heat and Power ("CHP") resources and system energy assigned to the Pioneer portfolio by the CSP tool.

Resource Diversity

Pioneer's PCP prioritizes resource diversity among numerous dimensions (technology, location, procurement timing, counterparty) as a fundamental risk management strategy and which yields a portfolio with production characteristics that generally align with Pioneer's load shape. Close alignment reduces reliance on system energy with resulting emissions, while also reducing CAISO market exposure. These considerations are necessarily balanced against cost and availability concerns – clean baseload resources are limited in availability and come with high costs. Consequently, while the PCP includes a diverse portfolio of resources, it leans heavily on solar and storage, consistent with the System Reference Plan. Potential technological improvements or incorporation of resources procured by the

Department of Water Resources can be accommodated and may displace resources currently planned for the various procurement tranches. The staggered procurement timing articulated in the PCP provides flexibility to adapt to such changes.

Comparison to the 2022 IRP portfolio

The PCP is much larger than Pioneer's preferred 25 MMT by 2035 portfolio from the 2022 integrated resource plan due to the significant expansion of Pioneer's customer base and the significant load growth inherent in the assigned load forecast. The PCP shows greater reliance on solar and storage, which is primarily a function of resource availability and is consistent with the current RESOLVE/TPP results. Solar makes up the bulk of the build. California baseline wind is also substantial and supplemented by New Mexico and eventually Wyoming wind. Offshore wind is not included in the PCP, whereas the 2022 plan included off-share wind beginning in 2035.

c. GHG Emissions Results

The CSP calculator shows estimated GHG emissions as reported in the table below.

Table 6: GHG Emissions

2030	2035	2040	2045
0.344	0.222	0.181	0.122

These portfolio emissions are equal to or below the assigned GHG limits as required for a conforming portfolio.

d. Local Air Pollutant Minimization and Disadvantaged Communities

i. Local Air Pollutants

The CSP calculator estimates the following PM2.5, SO2, and NOx emissions associated with Pioneer's PCP:

Table 7: PCP Air Pollutants

Pollutant	2030	2035	2040	2045
PM2.5	22	150	146	144
SO2	3	60	59	59
NOx	34	347	343	334

The tables below show the portion of the load that is being served from net system power each year for the PCP.

Table 8: PCP Demand and System Power

	2030	2035	2040	2045
Retail Sales	4,312	5,335	6,056	6,519
Net System Power	742	462	506	326
% of Load Served by System Power	17%	9%	8%	5%

Pioneer discusses its plans to reduce reliance on system power in Section IV., Action Plan.

ii. Focus on Disadvantaged Communities

In our 2026 IRP, Pioneer uses the Clean System Power calculator to quantify both GHG and criteria pollutant emissions (NOx, PM2.5, SO2) associated with our preferred portfolio as reported in Section III.c and III.d.i. above. Pioneer's current service area includes two disadvantaged communities (DAC) per the 2026 IRP set of definitions which is inclusive of lands under the control of federally recognized tribes. After its expansion in 2027, Pioneer's service area will include more disadvantaged communities and lands belonging to federally recognized tribes.

DAC Census Tract / Land Controlled by a Federally Recognized Tribe	***County***	***Area Located in Pioneer's Territory****
Shingle Springs Rancheria	El Dorado	Yes
Auburn Rancheria	Placer	Yes
Berry Creek Rancheria	Butte	Expansion - Oct 2027
Enterprise Rancheria	Butte	Expansion - Oct 2027
Mooretown Rancheria	Butte	Expansion - Oct 2027
Colusa Rancheria	Colusa	Expansion - Oct 2027
Cortina Indian Rancheria	Colusa	Expansion - Oct 2027
Grindstone Indian Rancheria	Glenn	Expansion - Oct 2027
Chicken Ranch Rancheria	Tuolumne	Expansion - Oct 2027
Tuolumne Rancheria	Tuolumne	Expansion - Oct 2027
Census Tract: 6007001300	Butte	Expansion - Oct 2027
Census Tract: 6021010400	Glenn	Expansion - Oct 2027
Census Tract: 6101050101	Sutter	Expansion - Oct 2027
Census Tract: 6101050202	Sutter	Expansion - Oct 2027
Census Tract: 6101050201	Sutter	Expansion - Oct 2027
Census Tract: 6101050302	Sutter	Expansion - Oct 2027
Census Tract: 6007003700	Butte	Expansion - Oct 2027

**An area being located within Pioneer's service territory does not indicate if specific customers are opted into being Pioneer customers.*

Our planning objective is to minimize unspecified system power usage and prioritize clean resources that reduce local pollution burdens across the State. Where grid capacity exists within our communities, we are particularly conscious of local areas with high cumulative pollution scores. In procurement practice, this involves prioritizing biomass facilities in areas heavily burdened by the threat of wildfire and renewable generation with the greatest potential for displacement of fossil fuels, wherever practical. Overall, these practices aim to benefit DACs by reducing wildfire risk and stimulating the local economy for biomass projects and reducing emissions with other renewable projects. In its solicitations Pioneer requests respondents to identify how the submitted projects may replace or supplant existing generation and to quantify the expected emissions impacts of this transition.

As required in this 2026 IRP submission, Pioneer has also analyzed its existing portfolio of long-term contracts and their relationship to DACs within a 5-mile radius. While Pioneer does not have direct data showing emissions reductions as a result of these projects (many are not yet operational), Pioneer's long-term portfolio is comprised of renewable resources – solar, wind, geothermal, biomass – and battery storage capacity which all are anticipated to have either a positive impact or negligible impact on emissions and have the potential to displace emitting generation.

Project Type	Project Location	Census Tract	DACs in 5-mile radius
Solar + BESS	Kern County	6029006500	Yes (6029006500)
Solar + BESS	Kern County	6029004500	Yes (6029004500)
Solar + BESS	Colusa County	6011000300	Yes (Cortina Indian Rancheria)
Biomass	Nevada County	6057000600	No
Biomass	Yuba County	6115040901	Yes (6115040400)
Biomass	Mariposa County	6043000101	No
Biomass	Plumas County		
Biomass	Butte County	6007003600	Yes (6007003700)
Biomass	Calaveras County	6009000501	No
Solar + BESS	San Bernardino County	6071011600	No
Solar + BESS	San Bernardino County	6071011600	No

e. Cost and Rate Analysis

In selecting resources for its portfolio, Pioneer carefully considered the cost implications of specific resource selections and procurement timing. This analysis was informed by Pioneer's procurement experience and the standard assumptions and results of the Commission's RESOLVE/SERVM modeling.

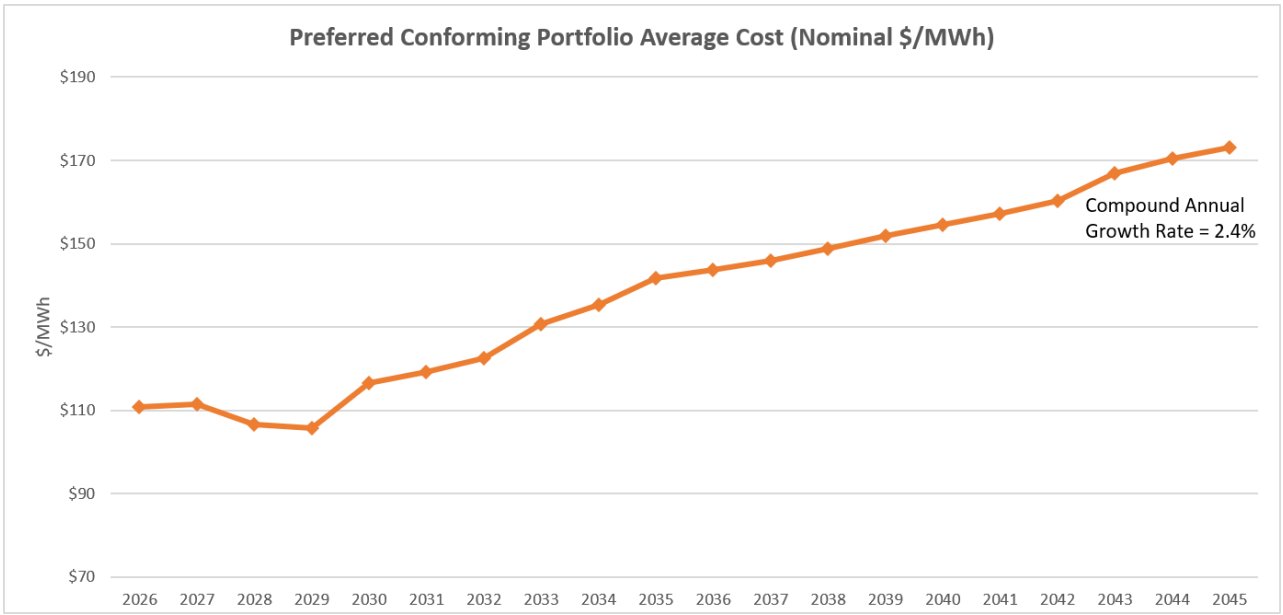
Pioneer strives to keep customer costs as low as possible as a matter of community interest, and we also have a competitive incentive to do so because customers can voluntarily leave the program. This objective is reflected both in the resources procured and in the timing of those procurements. Pioneer employs risk-management principles that consider risk associated with under-procurement, as well as risks of potential over-procurement which could occur from unforeseen changes in load going forward. Risk management also involves assessing the currently available technologies, expected technological developments, and potential for radically different technologies in the future. The assessment of potential resources is not strictly limited to cost but includes information on how well the resources match the specific needs of Pioneer's customers' load. For example, solar resources are often the least expensive on a simple cost per MWh basis, but other resources which may cost more on a simple MWh

basis may provide additional benefits in terms of RA capacity, better matching Pioneer's load profile, or serving the needs of the Pioneer service area.

Pioneer generally sought to balance timely procurement needed to address LSE-specific shortfalls and Commission-identified system resource needs against the potential cost savings from delaying renewable and storage procurement as projected costs decline. Pioneer also recognizes that future resource costs are highly uncertain, and technological advancement can happen unexpectedly; Pioneer's procurement cycle is designed to take advantage of technological and cost improvements by incrementally adding new resource commitments over time.

Pioneer continuously monitors the energy markets and reassesses current market prices, expected future prices, technological progress, and its expected needs. When opportunities arise Pioneer will take advantage of them.

Pioneer's portfolio cost analysis quantifies the expected power supply costs associated with the PCP through 2045. The cost analysis incorporates expected generation costs, resource value (energy, resource adequacy, and renewable energy, as applicable), and the costs associated with resource curtailments. Marginal ELCC values from RESOLVE were used to quantify expected net qualifying capacity values from the portfolio. As these ELCC factors decline significantly for battery storage resources over the planning period and remain low for solar resources, relatively little RA value is obtained from the solar and battery portfolio elements of the portfolio, despite large increased in nameplate capacity. Average portfolio costs are projected to decline through 2029 and then begin increasing as new resources must be added to the portfolio to keep up with GHG emissions limits and reliability metrics. The average nominal portfolio cost is projected to increase by a compound average growth rate of 2.4% annually from 2026 through 2045. The yearly average portfolio cost is shown in the following figure.

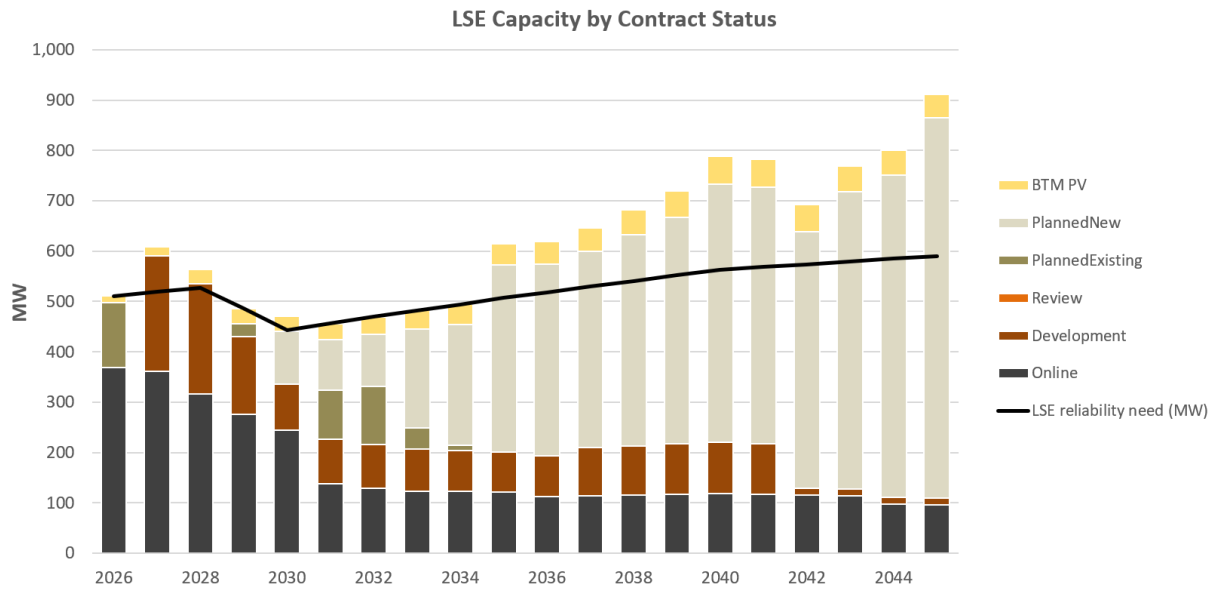


f. System Reliability Analysis

Pioneer's PCP meets applicable reliability standards and will contribute Pioneer's fair share to system reliability needs. The following table and chart from the Reliability – Planning sheet of the RDT show load and resource by contract status for the PCP that includes total reliability need (effective MW), total supply (effective MW), and net capacity position (effective MW) for all study years.

Table 9: Load and Resource Table by Contract Status

Load and Resource Table by Contract Status																					
		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
LSE reliability need (MW)		**511**	**519**	**527**	**486**	**443**	**456**	**469**	**482**	**495**	**507**	**518**	**529**	**541**	**552**	**563**	**568**	**574**	**579**	**585**	**590**
ELCC by contract status (effective MW)																					
Online		369	361	316	275	245	138	130	123	122	122	113	114	115	117	118	117	115	114	97	96
Development		-	230	219	155	91	89	87	84	82	79	81	96	98	100	102	100	14	14	13	13
Review		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PlannedExisting		128	-	-	25	-	96	116	42	10	-	-	-	-	-	-	-	-	-	-	-
PlannedNew		-	-	-	-	104	101	103	195	240	371	380	389	418	450	512	511	510	590	640	755
BTM PV		14	18	28	30	30	32	35	38	40	42	45	47	50	53	56	54	53	51	49	47
LSE total supply (effective MW)		**511**	**608**	**563**	**486**	**470**	**456**	**470**	**482**	**495**	**614**	**618**	**646**	**682**	**720**	**788**	**782**	**692**	**769**	**800**	**912**
Net capacity position (+ve = excess, -ve = shortfall) (effective MW)		**-**	**89**	**36**	**0**	**27**	**0**	**0**	**0**	**0**	**107**	**100**	**117**	**141**	**168**	**225**	**213**	**118**	**189**	**215**	**321**



As demonstrated in Table 10, Pioneer's PCP provides total effective capacity equal to or greater than its designated reliability need in all years.

g. Existing Resource Planning

Over the planning period the majority of supply in the PCP portfolio is planned to be from new resources, with minimal reliance on existing resources. Planned contracts with existing resources are generally for resource types that have been historically available and utilized by Pioneer. Pioneer has chosen these resources because of their lower delivery risks compared to new resources (i.e., existing resources are not subject to development risks that often result in delays or outright cancellation of planned new resources) and in recognition of the beneficial role that short-term purchases from existing resources play in facilitating portfolio flexibility. However, Pioneer recognizes the possibility that these existing resources may not be available to meet Pioneer's plans. Pioneer's portfolio attempts to balance out these competing risks, and, as Pioneer has explained elsewhere in this document, Pioneer does not view its proposed portfolio as prescriptive, but as a flexible planning framework that can be adapted as market conditions evolve. If expected existing resources are not available, Pioneer will consider other possible alternatives. Even if the existing resources are available, Pioneer may procure new resources if doing so would reduce emissions or reduce costs for its customers.

In Pioneer's portfolio, the primary existing resources not already under contract are in-state large hydro, wind and solar resources. These are resources that have been generally available to date and that have met the needs of Pioneer's customers for carbon-free energy at competitive prices with minimal risks.

The current PCP relies considerably more on new resources than the 25 MMT by 2035 PCP from the 2022 IRP did. Focusing on 2035, the last year of the 2022 planning period, existing resources made up about 52% of supply in the 2022 IRP versus only about 24% in the current PCP — roughly 1,134 GWh existing versus 1,057 GWh new in the 2022 IRP (a roughly 50/50 split), and roughly 1,408 GWh existing versus 4,383 GWh new in the current PCP. The shift reflects both a meaningfully larger overall portfolio in 2035 (about 5,791 GWh in the current PCP versus 2,190 GWh in the 2022 IRP)

and a much larger planned procurement of new solar and wind. By 2045, the PCP becomes overwhelmingly a new-resource portfolio: existing baseline supply declines to about 713 GWh, while new builds dominate at roughly 6,731 GWh (~10% / 90%).

h. Hydro Generation Risk Management

In developing its PCP, Pioneer took several steps to manage the risk of reduced hydro availability that may result from future in-state drought. First, Pioneer has developed a network of Pacific Northwest-based hydroelectric power suppliers, including entities that have substantial Asset Controlling Supplier ("ACS") supply and are thus able to sell firm low-carbon supply to Pioneer. Pioneer's PCP includes hydroelectric resources located within California, but this could be augmented with imported hydroelectric power from the Pacific Northwest if needed. Second, Pioneer prioritizes hydroelectric contracts with marketers that provide firm delivery volumes, helping to reduce the planning uncertainty associated with drought and variable hydroelectric conditions within California. Third, Pioneer's planned use of hydroelectric supply within its PCP declines over the planning period and makes up only 5% of total planned supply by 2045. Due to Pioneer's relatively small hydroelectric needs, Pioneer does not anticipate significant hydro-electric availability risk on its ability to meet its GHG limits or its portfolio costs. Under a drought scenario or in the event that other factors restrict the availability of hydroelectricity and Pioneer is unsuccessful in filling related shortfalls through short-term contracting opportunities, Pioneer would plan to substitute with renewable energy resources to ensure it meets its assigned GHG benchmark. This is generally the same approach and conclusions Pioneer presented in its 2022 IRP.

i. Long-Duration Storage Planning

Pioneer observed that the System Reference Plan includes increasing amounts of eight-hour battery storage and relatively static amounts of four-hour battery storage over the planning period. Pioneer has similarly planned to increase its use of long-duration storage over time. Planned solar plus storage projects beginning with the 2035 procurement tranche include eight-hour battery storage. This represents a change from the 2022 IRP in which most of the battery storage was planned as four-hour duration. Current cost estimates are high for long duration storage, and this puts upward pressure on portfolio costs. The relatively low ELCC factors for battery storage in the RDT means that relatively little resource adequacy value is obtained, despite the high costs. As additional technologies are market-proven and more developers offer long-duration storage with potentially lower costs, Pioneer will consider further procurement of these resources. Pioneer sees the possibility for substantial benefits from long-duration storage to the grid and for aiding LSEs in compliance with the Slide-of-Day Resource Adequacy program.

j. Clean Firm Power Planning

Pioneer views clean firm generation as a valuable element of its resource mix as it provides reliable and predictable generation with low emissions. The challenge to greater utilization of this resource type is availability and cost. The primary large scale clean firm resources are geothermal and nuclear generation. Other clean firm generation types, such as biomass and especially biogas, are typically

smaller-scale projects. None of these resources are abundant, and costs exceed $100 per MWh, limiting their role in the planned portfolio. The PCP includes new biogas contracted and planned to come online in 2028, meeting Pioneer's D.21-06-035 clean firm energy requirement, and planned new biomass and geothermal in 2035. Pioneer restricted its planned use of geothermal based on the RESOLVE modeling that shows conventional geothermal fully built out by 2035. The PCP assumes other LSEs are similarly procuring from the pool of available geothermal resources, further limiting how much is assumed to be available to Pioneer. The amounts of geothermal included in the PCP is similar to the amounts included in the 2022 IRP.

k. Non-CAISO, including Out-of-State, Wind Planning

Pioneer's planned contracting for new out-of-state wind energy projects generally follows the timeline and relative size for selected builds of this resource type from the CPUC's RESOLVE modeling results. To date, Pioneer has observed opportunities to contract with New Mexico wind resources delivered via the SunZia transmission project. Availability of IARs remains a constraining factor for New Mexico wind, and transmission limitations appear to be constraining availability of wind from other states. As compared to the 2022 IRP, the current PCP includes similar amounts out-of-state wind after adjusting for the larger load reflected in the current PCP. Transmission remains the most significant risk to Pioneer's planned use of out-of-state wind.

l. Offshore Wind Planning

Pioneer did not include plans for offshore wind in its PCP pending further progress on development of this resource type. Potential Department of Water Resources contracts of offshore wind energy have not been assumed, but Pioneer could adapt future plans as needed to incorporate these resources.

m. Transmission Planning

In identifying resource locations for all portfolios, Pioneer was guided by the following considerations:

- Pioneer has a general preference for resources located within its service area and the community it serves, but more generally, within Southern California.
- Pioneer prefers projects located in areas that can utilize existing transmission infrastructure with minimal upgrade/modification costs.
- Pioneer prefers low-impact renewable energy projects that provide economic benefit to DACs, subject to community interest in siting projects within such locations.

Pioneer is not a transmission and distribution ("T&D") system operator and does not have detailed knowledge of expansion requirements on PG&E's T&D system or the CAISO grid. Pioneer is not in the best position to identify optimal resource locations and does not have the expertise in house to determine the best locations for new resources. In practice, Pioneer relies on project developers to conduct the research and technical studies necessary for siting potential generation projects. Pioneer evaluates projects offered by developers based on a variety of criteria, including transmission availability, nodal prices and potential for congestion, project viability, environmental, workforce, and other factors. As such, Pioneer generally utilized the RESOLVE modeling and assumptions as a guide for

likely resource locations in its PCP. These should be treated as general expectations based on the aforementioned considerations, not definitive selections – actual project locations will be selected during Pioneer's future solicitation processes. Pioneer believes that the best way to keep costs down during resource solicitations is to not limit the potential locations of the resources. Competition among the responders to resource solicitations ensures that Pioneer can avail itself of the best possible resources, including allowing developers to explore different locations and select what they feel is the best location for their resource taking into account numerous factors, including the costs of any potential transmission upgrades or curtailment issues. Like most LSEs, Pioneer doesn't have the necessary resources to examine all possible resource locations to find optimal ones from a transmission perspective but relies on the developers of projects doing just that.

As discussed in prior sections, Pioneer is very nimble in administering pertinent resource planning processes. More specifically, if Pioneer's expected resource locations become infeasible due to various constraints, or if the Commission's modeling efforts happen to indicate that certain resource locations are no longer feasible/desirable, then Pioneer would ultimately locate and contract for alternative resources that fall in preferred locations. Pioneer also remains open to interesting opportunities, and should developers find locations that have not been anticipated but through the developer's analysis offer benefits Pioneer will consider them without feeling locked into the existing expected locations.

None of the contracted new resources require additional transmission expansion. These were vetted during the project evaluation stage to ensure transmission interconnection agreements deliverability status were in place or imminent within a reasonable milestone schedule. The planned new resources in the PCP are not location specific, so transmission status cannot be determined.

IV. Action Plan

a. Proposed Procurement Activities and Potential Barriers

Pioneer has a well-established procurement process that it uses and will continue to use to steadily achieve its PCP over the planning period. Pioneer's procurement process includes the following key activities:

- Identification of planned resources by type, desired online date, and capacity.
- Planning for procurement activities in consideration of Pioneer's risk management policy; resource acquisition lead times including, where applicable, development timelines; staff capacity; and financial considerations.
- Design and administration of resource solicitations. For new resources, these typically take the form of periodic request for offers processes, while for existing resources, procurement activity is more frequent and routinized.
- Careful negotiation of contract terms to ensure positive outcomes for Pioneer customers with appropriate risk mitigation.
- Ongoing contract management, including where applicable, careful monitoring of development milestones.
- Ongoing contract management, including where applicable, careful monitoring of generator performance after a resource has achieved commercial operation date ("COD").

Pioneer expects to use competitive solicitations to procure contracts for the new build resources contained in the PCP. Standard power purchase agreement terms are expected to range from ten to twenty years. A summary of the expected solicitation timelines is described below.

Tranche	COD	Resources	RFO Release
1	2030	LT Solar 1a + LT Storage 1a, LT Storage D.26_4, LT Wind OOS 1	2027 (kickoff Q4 2026 for OOS wind)
2	2032	LT LD Storage D.26_8	2028
3a	2033	LT Solar 2a + LT Storage 2a	2030
3b	2034	LT Solar 2b + LT Storage 2b	2031
3c	2035	LT Solar 2c + LT Storage 2c, LT Geothermal 2, LT Wind CA 2, Bio tranche: 6 biomass units + Biomass TBD + 8 landfill-gas biogas units	2032 (geothermal: 2030–2031; bioenergy: 2032–2033)
4a	2038	LT Solar 3a + LT Storage 3a	2035
4b	2039	LT Solar 3b + LT Storage 3b	2036
4c	2040	LT Solar 3c + LT Storage 3c, LT Wind OOS 3	2037 (OOS wind: 2034–2035)
5a	2043	LT Solar 4a + LT Storage 4a	2040
5b	2044	LT Solar 4b + LT Storage 4b	2041
5c	2045	LT Solar 4c + LT Storage 4c, LT Wind OOS 4	2042 (OOS wind: 2039–2040)

i. Resources to meet IRP mandated procurement requirements, including D.21-06-035 and D.23-02-040:

All of Pioneer's required resources under the D.21-06-035 and D.23-02-040 procurement orders are under contract. Pioneer is in regular communication with its project development counterparts to monitor development progress for those resources not yet operational. The recent D.26-02-057 procurement order obligates additional incremental procurement totaling 54 MW by 2032, of which 14 MW is long duration storage and/or clean firm generation. Pioneer has existing contracts with new four-hour battery and eight-hour battery storage projects in development to meet this obligation and is currently negotiating a contract for clean firm generation projects totaling 8 MWs.

ii. Plans for resources that are currently non-candidate in CPUC's IRPs not described above

Not applicable.

iii. Other renewable and/or zero carbon resources not described above

As previously mentioned, Pioneer's PCPs are not set in stone. Pioneer continually monitors the renewable energy space through RFOs and discussions with developers, as well as monitoring various news reports, and regulatory proceedings, Pioneer is ready to modify its expected portfolio if new resources or specific opportunities arise. Pioneer has expressed openness to alternative potential emissions reduction opportunities in its RFPs and has encouraged such offers from respondents. This has not resulted in any viable opportunities to date, but Pioneer will continue to pursue various approaches to explore the potential value of a wide range of options. Pioneer strives to be a nimble and adaptable energy buyer in order to offer its customers the lowest cost power.

iv. Other energy storage not described above

Pioneer expects that except for the long-duration storage required under D.21-06-035 and future procurement orders, the storage it will acquire will mostly be from paired solar and storage resources and/or standalone storage resources that help balance Pioneer's very high behind-the-meter solar penetration. Pioneer remains open to considering other possibilities, especially if new technologies arise that reduce the costs of storage or in situations where storage can help fulfill other needs, such as reducing the need for new transmission or distribution, or promoting local area reliability. Pioneer will continue to monitor developments in the energy storage markets and adjust its portfolio if advantageous opportunities arise.

v. Other demand response not described above

Pioneer has already contracted for a modest amount of demand response resources as a part of our efforts to meet our D.21-06-035 obligations. Pioneer remains open to other opportunities should they arise, consistent with the current maximum cumulative capacity ("MCC") bucket requirements and where competitive with other options. Pioneer also has initiated its own pilot demand response program PowerShift Rewards and will determine whether to expand or modify the program at the end of the year. Pioneer's PowerShift Rewards program is focused on serving its residential customers, future programs may consider expansion to serve other customers within the commercial and industrial classes.

vi. Other energy efficiency not described above

Pioneer offers energy efficiency programs that can provide reliable savings at affordable prices to its customers. Pioneer's AC Tune-Up Program provides residential and commercial customers a rebate to inspect, clean, and service their air conditioning system making it more efficient. Having AC units running efficiently and reliably helps keep customer costs low in the summer and at scale relieves peak demand in extreme heat events.

Pioneer's other energy efficiency programs include LED lighting discounts to provide customers with cost savings on both the procurement of new lighting, as well as the efficiency gain of LED lighting. Pioneer is evaluating new program initiatives including a Strategic Energy Management (SEM) Program, designed to support commercial and industrial customers identify and implement energy performance improvement activities, as well as integrated demand side management. and is not being implemented.

To further support residential energy efficiency, Pioneer is evaluating the potential of a home energy advisory program designed to assist homeowners and residents with identifying energy saving measures, and to act as a resource guide to other Pioneer cost saving programs.

vii. Other distributed generation not described above

As noted earlier in this document, Pioneer is actively engaging in opportunities to expand its efforts associated with distributed energy resources through programs and procurement of resources dealing with biomass generation, microgrids, and behind-the-meter storage.

Pioneer also offers a unique thermal energy storage system with its Ice Energy program. The system is integrated with a site's AC unit and converts liquid fluid into ice when energy is less expensive, then directly provides the cooling in place of the compressor during times where energy is more expensive. This DER resource is available to commercial and industrial customers and is a tool for Pioneer to reduce Pioneer's peak demand.

viii. Transportation electrification, including any investments that correspond to different levels than what is included in Integrated Energy Policy Report (IEPR)

Pioneer does not currently have any transportation electrification investment plans which would suggest a different forecast than what is included in IEPR but may consider these proposals in the future. Transportation electrification is anticipated to be a component of Pioneer's Programs Plan, which is currently in late stages of development.

ix. Building electrification, including any investments that correspond to different levels than what is included in Integrated Energy Policy Report (IEPR)

To date, Pioneer's primary means to participate in building electrification is through connecting its customers with local incentives offered by other community resources including the cities and counties that form Pioneer Community Energy. Pioneer's Incentive Finder helps customers identify multiple incentives that are available to them based on their location and income; incentives range across a wide variety of electrification strategies including heat pump installation rebates, EV charger credits, and kitchen appliance replacement incentives.

x. Potential Centralized Procurement, pursuant to AB-1373

LSEs should describe and provide specific details on any changes to their preferred conforming portfolio and contract planning strategy should the Department of Water Resources (DWR) be successful in conducting the centralized procurement of long lead time (LLT) resources as set forth in D.24-08-064.

If DWR successfully procures long lead time resources, and the benefits are allocated to load serving entities, Pioneer would likely reduce planned procurement of new battery and storage resources. The PCP stages procurement through various tranches over time, leaving flexibility to adjust if DWR resources become available. There is insufficient information at this time to incorporate specific assumptions for DWR procured resources into the PCP.

xi. Other

With solicitation practices described further above regarding inclusion of other zero emissions resources in Pioneer's RFPs, Pioneer continuously explores new methods of lowering electricity demand and increasing clean energy supply.

b. Disadvantaged Communities (DACs)

While Pioneer has previously been able to serve low-income customers with competitive rates, it will begin serving more DACs designated census tracts after the expansion in October 2027. Pioneer is very interested in working with state agencies to bring resiliency and electrification programs to these critical areas. Pioneer is tracking state programs and partner organizations including the CEC's EPIC program, CEC's Clean Transportation Program, Strategic Growth Council solicitations, and CARB opportunities that can collaborate with Pioneer to provide funding and programmatic support to strategically uplift DACs.

c. LSEs' Tribal Customers

Pioneer is expecting to have an increased number of tribal customers with its expansion in October of 2027. Pioneer has been actively engaging with entities to determine the best way to uplift Tribal Customers and is particularly interested in being a resource to these customers who are considering deployment of biomass generation resources, DERs, and other energy related efforts that aim to stimulate economic development and energy affordability.

d. Procurement Products

Pioneer intends to utilize the following physical energy products in procurement activities associated with its PCP. Contracts are expected to be conducted bilaterally rather than via commodities exchanges.

Product	Description
Physical energy, RPS qualifying	Renewable energy qualified to meet California RPS
Physical energy, other carbon free	Non-carbon emitting energy that does not meet California RPS; e.g., large hydro
Physical energy, CAISO energy	Energy delivered to the CAISO grid from unspecified sources
Capacity, Net Qualifying Capacity	Capacity qualified to meet California Resource Adequacy program standards

e. Commission Direction of Actions

If applicable, describe any direction that the LSE seeks from the Commission, including consideration in the IRP Procurement Track, new spending authorizations, changes to existing authorizations, or changes to existing programmatic goals or budgets. Draw clear connections between any requested direction and the study results, proposed activities, and barrier analysis presented above.

Not applicable

V. Lessons Learned

LSEs may use this section to document any suggested changes to the IRP process for consideration by the Commission. LSEs should explain how the change would facilitate the ability of the Commission and LSEs to achieve state policy goals.

Pioneer appreciates the opportunity to contribute to the long-term planning towards California's energy and climate goals through the IRP process. Recognizing the importance of meeting the state's GHG-reduction and grid reliability targets, Pioneer would like to emphasize the equal importance of balancing these goals with the realities of energy affordability. Below are considerations that Pioneer believes should be considered to improve the IRP process:

- *Need for Clean Firm Resources (Biomass) - In the CPUC RESOLVE-selected portfolio, 70% of the selected builds are solar and storage, which are intermittent resources that cannot meet grid reliability needs at all hours of the day. Furthermore, solar and storage are experiencing decreasing effective load carrying capacity (ELCC) over time, making additional build-out of these resources more costly and less effective at meeting grid reliability needs. The Commission should consider including more clean firm resources in the IRP to fortify grid resiliency. Currently, the main clean firm resource included in the CPUC RESOLVE-selected portfolio is geothermal. While geothermal has great potential for future build-out, the state already has an abundance of biomass material and existing biomass facilities that can be used to generate bioenergy. Many of Pioneer's service territories are in high wildfire-risk areas, making bioenergy a key tool in reducing forest fuel, mitigating wildfire risk, and providing clean firm energy to support grid resiliency. In the current IRP planning cycle, the CPUC's RESOLVE model did not select any new bioenergy resources to serve future energy needs, which is not aligned with the rest of California's climate goals surrounding forest management and wildfire risk. Pioneer highly recommends that future IRP modelling takes into account state mandates related to bioenergy, including the California Wildfire & Forest Resilience Task Force's goal to treat one million acres annually. Given the significant threat that wildfires pose to California's environmental health and energy infrastructure which has direct impacts on energy affordability, the IRP model should consider the multi-beneficial characteristics of biomass energy, which can generate clean firm power while simultaneously mitigating wildfire risk.*
- *Diablo Canyon Power Plant (DCPP) Extension and Inclusion in IRP – DCPP represents a significant portion of the state's energy portfolio, producing approximately 2 GW of baseload zero-carbon power and supplying 9% of California's total electricity. Excluding this resource from the IRP causes equally significant affordability implications. Given that DCPP is being considered for another extension, any continuation of the power plant and its generation should be accurately reflected in the IRP.*
- *Load Forecast Uncertainty with Data Centers – Recent IEPR load forecasts from the CEC show unprecedented load growth in the coming years in California. This forecasted load growth is being driven primarily by the growth of data centers. However, much of data center load growth is speculative, due to the infantile and unpredictable nature of the artificial*

intelligence industry. Considering the significant amount of load forecast uncertainty, the CPUC should consider more robust modeling of different load growth scenarios, to prepare for a range of possible futures, including one in which this significant amount of load growth does not materialize.

- *Need to Finalize Development of the Reliable and Clean Power Procurement Program (RCPPP) – This program has been in development for years and is intended to replace ad-hoc procurement orders that have come out of the IRP proceeding, providing LSEs with more long-term planning capability. The current RCPPP process is contemplating multiple issues critical to providing LSEs with a stable, long-term, cost-effective procurement framework that is aligned across California's three procurement programs (IRP, RPS, RA). Pioneer urges the Commission to prioritize the development of RCPPP, so LSEs can have the long-term certainty needed to enable cost-effective procurement, instead of relying on ad-hoc procurement orders that cause market disruptions which drive up energy costs, that are then borne by ratepayers.*

Glossary of Terms

Alternative Portfolio: *LSEs are permitted to submit "Alternative Portfolios" developed from scenarios using different assumptions from those used in the Preferred System Plan with updates. Any deviations from the "Conforming Portfolio" must be explained and justified.*

Approve (Plan)*: the CPUC's obligation to approve an LSE's integrated resource plan derives from Public Utilities Code Section 454.52(b)(2) and the procurement planning process described in Public Utilities Code Section 454.5, in addition to the CPUC obligation to ensure safe and reliable service at just and reasonable rates under Public Utilities Code Section 451.*

Balancing Authority Area (CAISO): *the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.*

Baseline resources: *Those resources assumed to be fixed as a capacity expansion model input, as opposed to Candidate resources, which are selected by the model and are incremental to the Baseline. Baseline resources are existing (already online) or owned or contracted to come online within the planning horizon. Existing resources with announced retirements are excluded from the Baseline for the applicable years. Being "contracted" refers to a resource holding signed contract/s with an LSE/s for much of its energy and capacity, as applicable, for a significant portion of its useful life. The contracts refer to those approved by the CPUC and/or the LSE's governing board, as applicable. These criteria indicate the resource is relatively certain to come online. Baseline resources that are not online at the time of modeling may have a failure rate applied to their nameplate capacity to allow for the risk of them failing to come online.*

Candidate resource: *those resources, such as renewables, energy storage, natural gas generation, and demand response, available for selection in IRP capacity expansion modeling, incremental to the Baseline resources.*

Capacity Expansion Model: *a capacity expansion model is a computer model that simulates generation and transmission investment to meet forecasted electric load over many years, usually with the objective of minimizing the total cost of owning and operating the electrical system. Capacity expansion models can also be configured to only allow solutions that meet specific requirements, such as providing a minimum amount of capacity to ensure the reliability of the system or maintaining greenhouse gas emissions below an established level.*

Certify (a Community Choice Aggregator Plan)*: Public Utilities Code 454.52(b)(3) requires the CPUC to certify the integrated resource plans of CCAs. "Certify" requires a formal act of the Commission to determine that the CCA's Plan complies with the requirements of the statute and the process established via Public Utilities Code 454.51(a). In addition, the Commission must review the CCA Plans to determine any potential impacts on public utility bundled customers under Public Utilities Code Sections 451 and 454, among others.*

Clean System Power (CSP) methodology*: the methodology used to estimate GHG and criteria pollutant emissions associated with an LSE's Portfolio based on how the LSE will expect to rely on system power on an hourly basis.*

Community Choice Aggregator*: a governmental entity formed by a city or county to procure electricity for its residents, businesses, and municipal facilities.*

Conforming Portfolio*: the LSE portfolio that conforms to IRP Planning Standards, the 2045 LSE-specific GHG Emissions Benchmark, use of the LSE's assigned load forecast, use of inputs and assumptions matching those used in developing the Reference System Portfolio, as well as other IRP requirements including the filing of a complete Narrative Template, a Resource Data Template and Clean System Power Calculator.*

Effective Load Carrying Capacity*: a percentage that expresses how well a resource is able avoid loss-of-load events (considering availability and use limitations). The percentage is relative to a reference resource, for example a resource that is always available with no use limitations. It is calculated via probabilistic reliability modeling and yields a single percentage value for a given resource or grouping of resources.*

Effective Megawatts (MW): *perfect capacity equivalent MW, such as the MW calculated by applying an ELCC % multiplier to nameplate MW.*

Electric Service Provider*: an entity that offers electric service to a retail or end-use customer, but which does not fall within the definition of an electrical corporation under Public Utilities Code Section 218.*

Filing Entity*: an entity required by statute to file an integrated resource plan with CPUC.*

Future*: a set of assumptions about future conditions, such as load or gas prices.*

GHG Benchmark (or LSE-specific 2045 GHG Benchmark)*: the mass-based GHG emission planning targets calculated by staff for each LSE based on the methodology established by the California Air Resources Board and required for use in LSE Portfolio development in IRP.*

GHG Planning Price: *the systemwide marginal GHG abatement cost associated with achieving a specific electric sector GHG planning target.*

Integrated Resources Planning Standards (Planning Standards)*: the set of CPUC IRP rules, guidelines, formulas and metrics that LSEs must include in their LSE Plans.*

Integrated Resource Planning (IRP) process*: integrated resource planning process; the repeating cycle through which integrated resource plans are prepared, submitted, and reviewed by the CPUC*

Long term*: more than 5 years unless otherwise specified.*

Load Serving Entity*: an electrical corporation, electric service provider, community choice aggregator, or electric cooperative.*

Load Serving Entity (LSE) Plan*: an LSE's integrated resource plan; the full set of documents and information submitted by an LSE to the CPUC as part of the IRP process.*

Load Serving Entity (LSE) Portfolio*: a set of supply- and/or demand-side resources with certain attributes that together serve the LSE's assigned load over the IRP planning horizon.*

Loss of Load Expectation (LOLE): *a metric that quantifies the expected frequency of loss-of-load events per year. Loss-of-load is any instance where available generating capacity is insufficient to serve electric demand. If one or more instances of loss-of-load occurring within the same day regardless of duration*

are counted as one loss-of-load event, then the LOLE metric can be compared to a reference point such as the industry probabilistic reliability standard of "one expected day in 10 years," i.e., a LOLE of 0.1.

Maximum Import Capability: a California ISO metric that represents a quantity in MWs of imports determined by the CAISO to be simultaneously deliverable to the aggregate of load in the ISO's Balancing Authority (BAA) Area and thus eligible for use in the Resource Adequacy process. The California ISO assess a MIC MW value for each intertie into the ISO's BAA and allocated yearly to the LSEs. A LSE's RA import showings are limited to its share of the MIC at each intertie.

Net Qualifying Capacity (NQC): *Qualifying Capacity reduced, as applicable, based on: (1) testing and verification; (2) application of performance criteria; and (3) deliverability restrictions. The Net Qualifying Capacity determination shall be made by the California ISO pursuant to the provisions of this California ISO Tariff and the applicable Business Practice Manual.*

Non-modeled costs*: embedded fixed costs in today's energy system (e.g., existing distribution revenue requirement, existing transmission revenue requirement, and energy efficiency program cost).*

Nonstandard LSE Plan*: type of integrated resource plan that an LSE may be eligible to file if it serves load outside the CAISO balancing authority area.*

Optimization*: an exercise undertaken in the CPUC's Integrated Resource Planning (IRP) process using a capacity expansion model to identify a least-cost portfolio of electricity resources for meeting specific policy constraints, such as GHG reduction or RPS targets, while maintaining reliability given a set of assumptions about the future. Optimization in IRP considers resources assumed to be online over the planning horizon (baseline resources), some of which the model may choose not to retain, and additional resources (candidate resources) that the model is able to select to meet future grid needs.*

Planned resource: *any resource included in an LSE portfolio, whether already online or not, that is yet to be procured. Relating this to capacity expansion modeling terms, planned resources can be baseline resources (needing contract renewal, or currently owned/contracted by another LSE), candidate resources, or possibly resources that were not considered by the modeling, e.g., due to the passage of time between the modeling taking place and LSEs developing their plans. Planned resources can be specific (e.g., with a CAISO ID) or generic, with only the type, size and some geographic information identified.*

Qualifying capacity*: the maximum amount of Resource Adequacy Benefits a generating facility could provide before an assessment of its net qualifying capacity.*

Preferred Conforming Portfolio*: the conforming portfolio preferred by an LSE as the most suitable to its own needs; submitted to CPUC for review as one element of the LSE's overall IRP plan.*

Preferred System Plan: *the Commission's integrated resource plan composed of both the aggregation of LSE portfolios (i.e., Preferred System Portfolio) and the set of actions necessary to implement that portfolio (i.e., Preferred System Action Plan).*

Preferred System Portfolio: *the combined portfolios of individual LSEs within the CAISO, aggregated, reviewed and possibly modified by Commission staff as a proposal to the Commission, and adopted by the Commission as most responsive to statutory requirements per Pub. Util. Code 454.51; part of the Preferred System Plan.*

Short term*: 1 to 3 years (unless otherwise specified).*

***Staff**: CPUC Energy Division staff (unless otherwise specified).*

***Standard LSE Plan**: type of integrated resource plan that an LSE is required to file if it serves load within the CAISO balancing authority area (unless the LSE demonstrates exemption from the IRP process).*

***Transmission Planning Process (TPP)**: process conducted by the California Independent System Operator (CAISO) to identify potential transmission system limitations and areas that need reinforcements over 10-year and 15-year horizons.*

Attachment C

Pioneer's Resource Data Template Version 3 (Public Version)

Attachment C is Submitted per Notice of Availability

Attachment D

Clean Power System Calculator

Attachment D is Submitted per Notice of Availability