



Pioneer Community Energy New Board Member Overview

2021 Edition



- General Board Information
- CCA Development & Updates
- Pioneer Overview, Organization and Key Highlights
- Customer Care & Programs
- Finance & Administration
- Energy Procurement
- Regulatory and Legislative



GENERAL BOARD INFORMATION



New Board Member Checklist

- Form 700 Filing



- Oath of Office



- Joint Powers Agreement – Lists powers of the authority, participation and governance
 - Amendment No. 1 – Admission of El Dorado County and the City of Placerville
 - Amendment No. 2 – Eliminated Weighted Voting
 - Amendment No. 3 – Address Treasurer and Auditor (April)
- By-Laws – Appointment of Chair/Vice Chair, committees, and meetings
 - Amendment No. 1 – Eliminated requirement Placer County Counsel as General Counsel
 - Amendment No. 2 – Board Clerk named Secretary (April)
 - Amendment NO. 3 – Address Treasurer/Auditor (April)

- Board Meeting Logistics
 - 3rd Thursday of the month, 3pm (virtual until further notice)
 - No Board or Committee meetings in August
 - Materials distributed Friday before Board meetings
 - Deadline is 3pm the Monday before Board meetings
- Committees
 - Audit & Finance Committee (Brown Act)
 - Expansion Committee
 - Energy Procurement Committee

Pioneer Community Energy Board

Nine-member Board:

- 1 from each City/Town
- 2 from Placer County
- 1 from El Dorado County

Board sets:

- Policy
- Rates
- Goals
- Platforms – Legislative and Regulatory
- Programs

Additional Oversight

Legislature

- Variety of laws around energy usage, climate change, power mixture, etc.

California Public Utilities Commission (CPUC)

- Power Charge Indifference Adjustment
- Time of Use
- Resource Adequacy
- Integrated Resource Plans
- Resiliency

California Air Resources Board (CARB)

- Greenhouse Gas Reduction Targets
- Emissions Controls

California Energy Commission (CEC)

- Power Content
- Conservation Programs

California Independent Systems Operator (CAISO)

- Grid Reliability
- Load Forecasting and Scheduling

- Business
 - Electricity provider to residents & businesses
 - Competition (Unlike a City, Pioneer is not the sole provider)
 - PG&E and Direct Access
 - Subject to legislative & regulatory actions
- Public Agency
 - Open books, open meetings, public scrutiny
 - Accountable to member cities and ratepayers

- Occasionally, the Pioneer Board may be called on to discuss or take action that may not be advantageous to all member agencies, but is necessary for the operation of Pioneer
- Pioneer Board Members have a fiduciary duty to Pioneer, and a vote that is not in line with direction given by a Board Member's representative board/entity is still a valid and binding vote
- The Joint Exercise of Powers Act does not require appointed members to vote as directed by their representative boards/entities

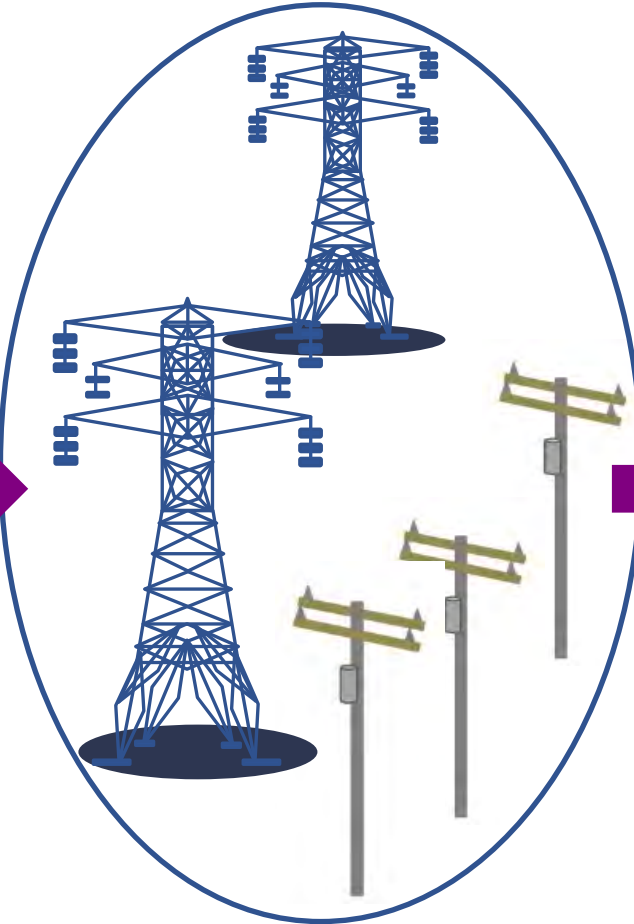


CCA DEVELOPMENT AND UPDATES

- Authorized in California by Assembly Bill 117 (Migden, 2002)
 - Opt-out structure – to ensure equity in customer enrollment
 - 1 CCA in 2010
 - 24 CCAs in 2021
- Participating communities join by ordinance
- Interested Parties Register with the California Public Utilities Commission, and then file an Implementation Plan



***Pioneer Community
Energy supplies
electricity***

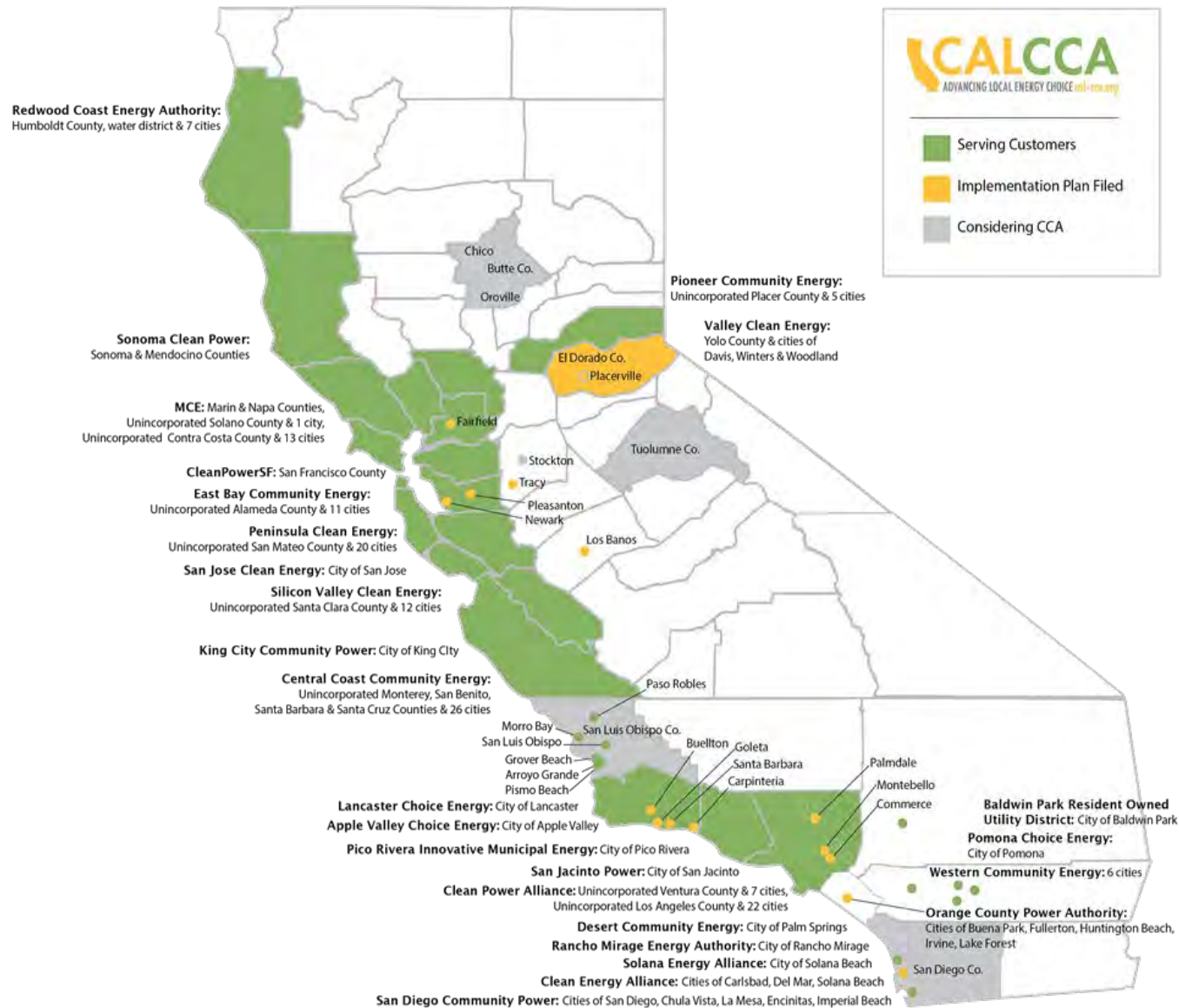


***PG&E delivers
electricity***



***You use the electricity
provided by Pioneer and
transmitted with PG&E's
same reliable service***

Existing CCAs in California



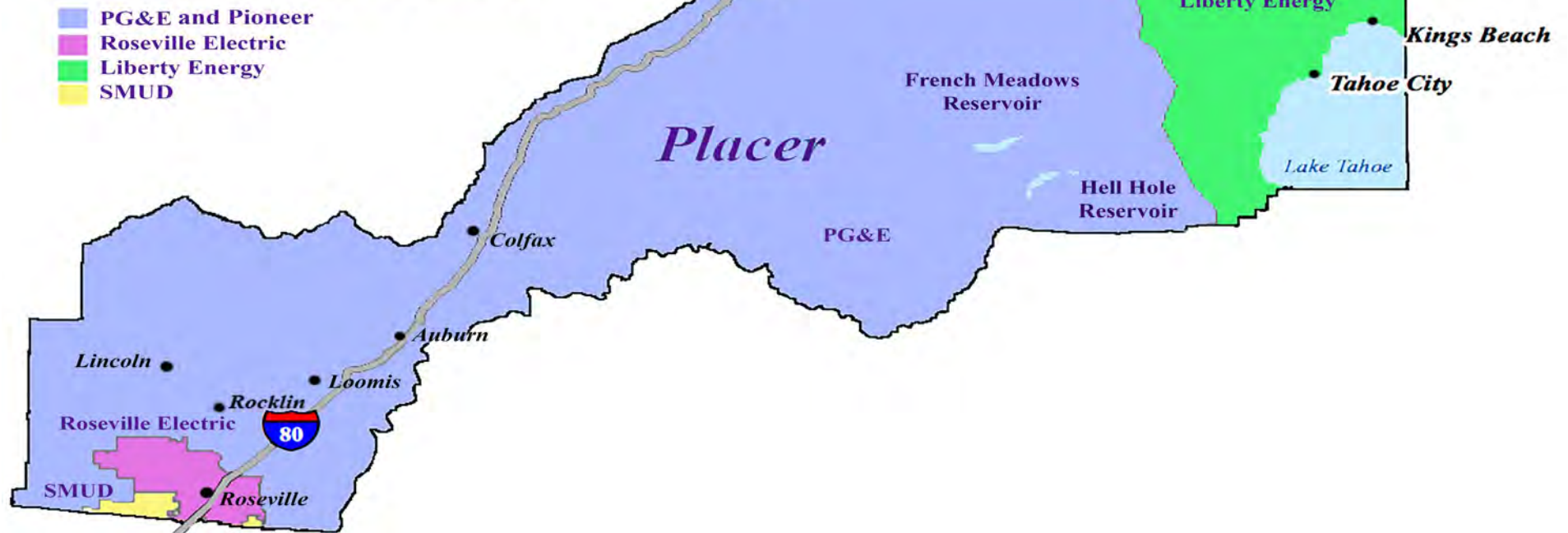


Pioneer Overview, Organization and Key Highlights



- JPA amended to add CCA – Feb. 2017
- First Board Meeting – July 2017
- Implementation Plan Approved – Oct. 2017
- Started Providing Power – Feb. 2018
- NEM Enrolled Starting – Sept. 2018
- Expansion Approved – Dec. 2020
- Expansion - 2022

Utility Service Areas in Placer County

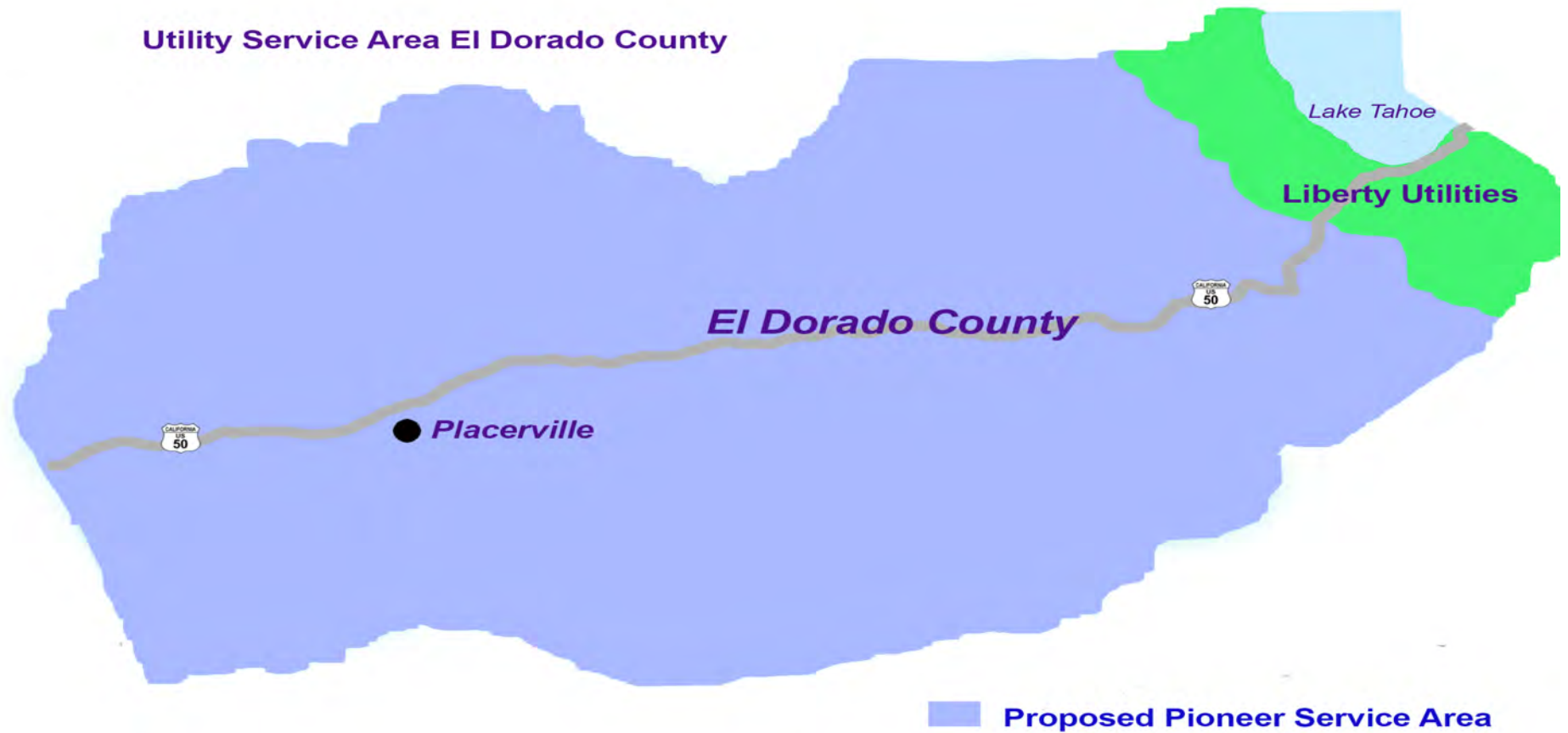


Pioneer Present Service Area

93,500 meters

1,125,027 MWh

Pioneer Quick Facts with Expansion



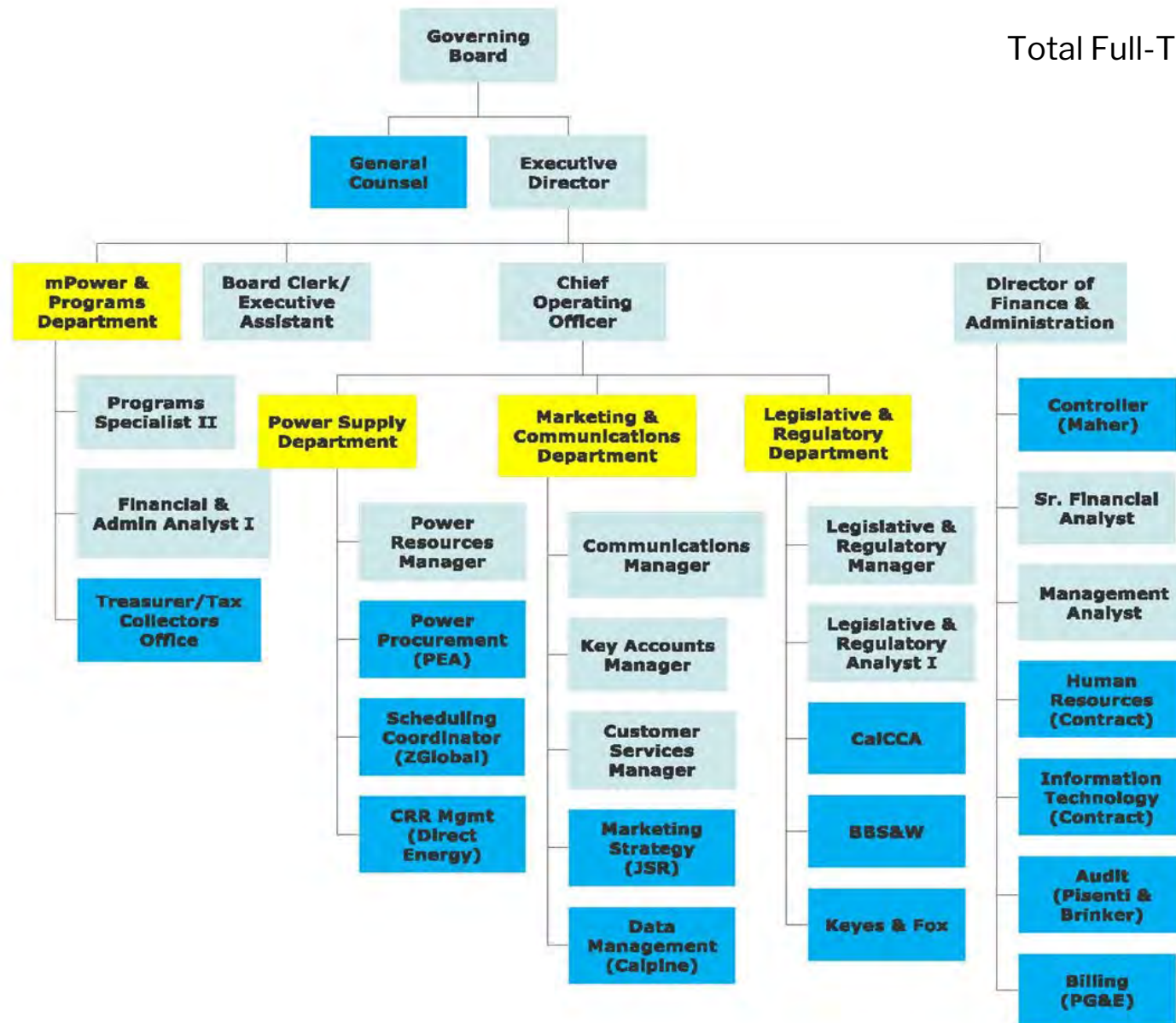
Pioneer 2022 Expansion

Add 68,000 meters

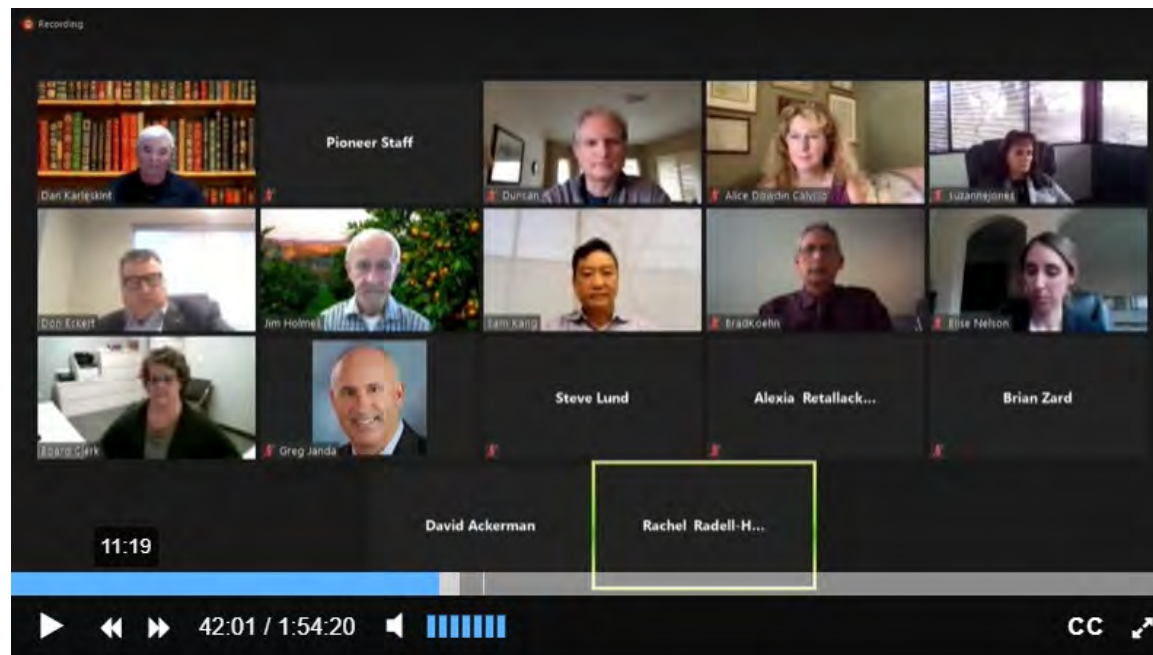
Add 739,414 MWh

Organization Chart

Total Full-Time Employees = 11

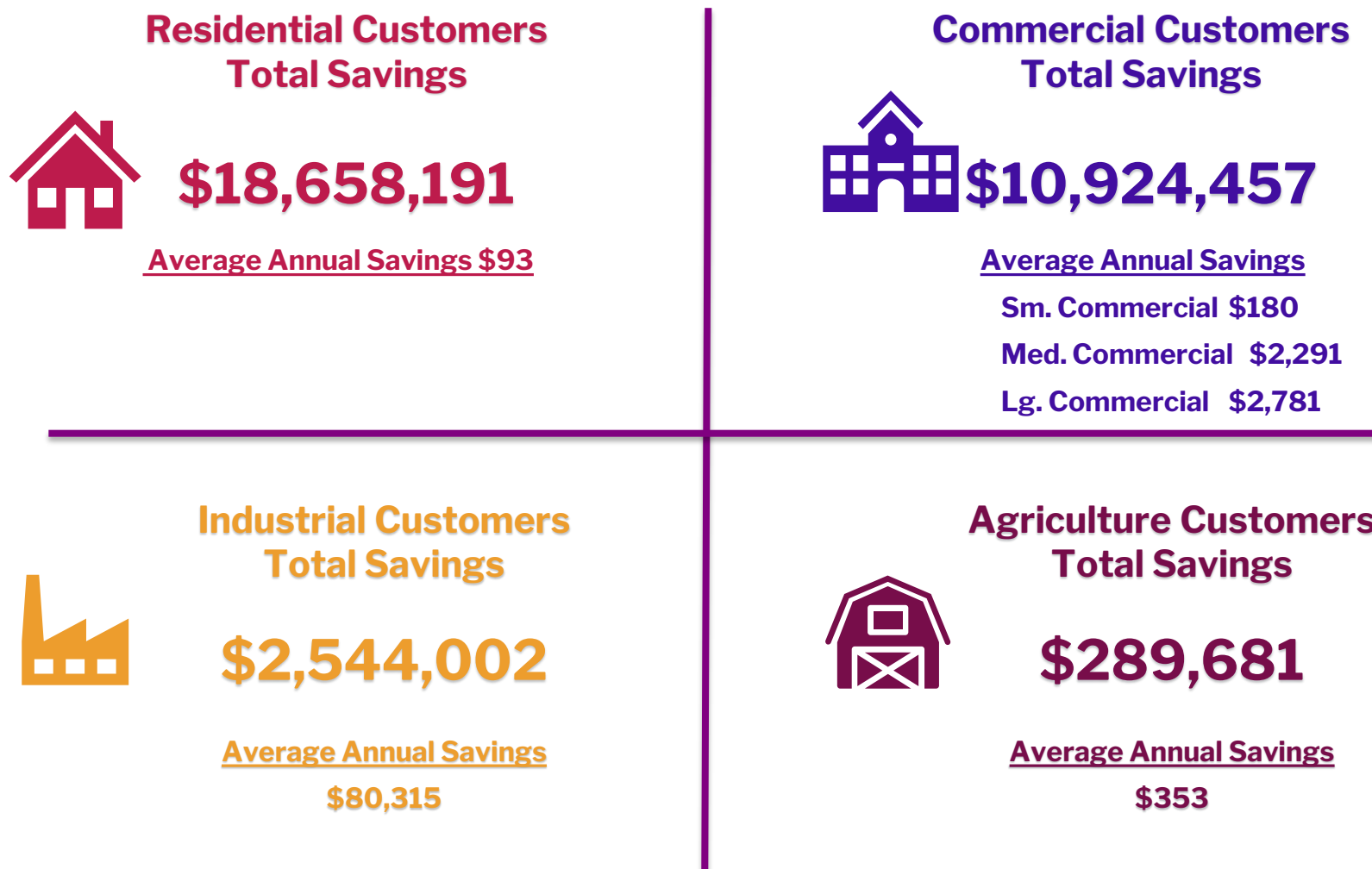


Pioneer's Goals (from JPA)



- Providing electric power and other forms of energy to customers at a competitive cost;
- Promoting long-term electric rate stability and energy security and reliability for residents through local control of electric generation resources and the overall power supply portfolio;
- Carrying out programs to reduce energy consumption;
- Stimulating and sustaining the local economy by developing local jobs in renewable energy; and
- Reducing greenhouse gas emissions related to the use of electric power and other forms of energy in Placer County and neighboring regions.

Pioneer Customers Total Savings Feb 2018 – Nov 2020 **\$32.5 million**



Total Pioneer Paid Out and Credited to NEM (Solar) Customers

\$190,110*

- Pioneer has more than 19,000 solar customers
- 17% of Pioneer's solar customers generate more electricity than they use annually, and they receive net surplus compensation (NSC)
- Pioneer pays \$.005 more than PG&E's NSC rate

Advocacy in Action

- **Mobile Home Park:** Legislation enacted to ensure MHP residents receive CCA benefits and savings
- **Ag Customers:** Deferred Time of Use enrollment for highly impacted Ag customers saving them \$465 to \$14,000 each
- **PSPS:** Advocate at CPUC for greater accountability, reporting, impact assessment and mitigation

*Through April 2020. Customers with balance less than \$25 received a credit on their bill.

Advocacy in Action

Local Job Creation, Investment and Impact

- Over \$3.5 million contributed to the local/regional economy in 2020
- Over \$1.4 million in combined financing and spending through the mPOWER program to local residents and businesses in 2020
- To assist Pioneer customers who are struggling to pay their electricity bills due to COVID-19 related consequences, Pioneer is providing its customers with an arrearage management program that forgives past due arrearages for participants in return for on-time payment of current monthly bills

Advocacy in Action

Minimizing Public Safety Power Shutoff (PSPS) Impacts

- Found a solution to power up the Auburn Police Department during PSPS events through connecting circuits with Auburn City Hall which remained powered up during PSPS events
- Ongoing substation and sectionalizing analysis for prioritization and development of microgrids to reduce frequency and impact of PSPS events
- Ongoing discussions with PG&E on substation back up plans and other PSPS-related issues

Pioneer Customer Call Center

- Toll free call: (844)937-7466
- Email: customerservice@PioneerCommunityEnergy.ca.gov
- Standard questions answered
- Some self service through the web
 - Opting out
 - How to read your bill
 - Other resources like CARE/FERA



CUSTOMER CARE AND PROGRAMS

Pioneer Customer Profile



Pioneer Customer Base	Count
Total # of Customers in Area	106,142
Pioneer Customers	93,930
PG&E Customers	11,981
Other (DA ineligible for CCA)	231

- Each month new/move in notices sent
- 411 new customers unclassified (about to start service so no LSE identified)
- 231 Ineligible for Pioneer as DA customers
- Participation rate 89%

Pioneer Customer Classification	# Accounts	% of Total
Agricultural	454	0.5%
Commercial/Industrial	9,779	10.4%
Residential	82,548	87.9%
Streetlight/Traffic Light	1,149	1.2%

E1 – Residential Example	Pioneer Standard	Pioneer Green 100
Generation Rate (\$/kWh)	\$0.07719	\$0.08807
PG&E Delivery Rate (\$/kWh)	\$0.16613	\$0.16613
PG&E PCIA/FF (\$/kWh)	\$0.04458	\$0.04458
Total Electricity Cost (\$/kWh)	\$0.28790	\$0.29878
Average Monthly Bill (\$)	\$210.88	\$218.71

Pioneer Standard

- Default rate
- Enrollment automatic
- Available for all rates

Pioneer Green 100

- Voluntary “opt-up” option
- Available for all rates
- Costs less than 1 penny (\$.010) more per kilowatt hour than basic power package
- 100% renewable
- Green-e certified
- Opt-down at any time

Billing, Enrollment and Participation

ENERGY STATEMENT
www.pge.com/MyEnergy

Account No:
Statement Date: 03/04/2021
Due Date: 03/25/2021

Typically Page 1 of Your Bill
Service For:

Your Account Summary

Amount Due on Previous Statement	\$313.95
Payment(s) Received Since Last Statement	-313.95
Previous Unpaid Balance	\$0.00
Current PG&E Electric Delivery Charges	\$122.91
Pioneer Community Energy Electric Generation Charges	45.63
Current Gas Charges	138.30
Total Amount Due by 03/25/2021	\$306.84

PG&E collects the full bill.

This is the amount paid to Pioneer

Front page of customer's bills

ENERGY STATEMENT
www.pge.com/MyEnergy

Account No:
Statement Date: 03/04/2021
Due Date: 03/25/2021

Typically Page 3 of Your Bill

Details of PG&E Electric Delivery Charges
01/28/2021 - 02/25/2021 (29 billing days)

Service For:
Service Agreement ID:
Rate Schedule: E1 P Residential Service

Service Information

Meter #	1004893175
Total Usage	588.796000 kWh
Baseline Territory	P
Heat Source	B - Not Electric
Serial	D
Rotating Outage Block	50

01/28/2021 - 02/25/2021	Your Tier Usage	1	2
Tier 1 Allowance	348.00 kWh (29 days x 12.0 kWh/day)		
Tier 1 Usage	348.000000 kWh @ \$0.24986	\$86.95	
Tier 2 Usage	240.796000 kWh @ \$0.31443	75.71	
Generation Credit		-66.00	
Power Charge Indifference Adjustment		25.95	
Franchise Fee Surcharge		0.30	
Total PG&E Electric Delivery Charges		\$122.91	

2017 Vintaged Power Charge Indifference Adjustment

PG&E's cost for electricity is credited back to Pioneer customers
PG&E's exit fee - Changes annually

PG&E details of electric delivery (wires & poles)

ENERGY STATEMENT
www.pge.com/MyEnergy

Account No:
Statement Date: 03/04/2021
Due Date: 03/25/2021

Typically Page 4 of Your Bill

Details of Pioneer Community Energy Electric Generation Charges
01/28/2021 - 02/25/2021 (29 billing days)

Service For:
Service Agreement ID:
ESP Customer Number:

Service Information

Total Usage	588.796000 kWh
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For questions regarding charges on this page, please contact:
PIONEER COMMUNITY ENERGY
2510 WARREN DR STE B
ROCKLIN CA 95677
1-844-937-7466
www.PioneerCommunityEnergy.ca.gov

Rate Schedule: E-1

Generation - Total	588.796000 kWh @ \$0.07719	\$45.45
Net Charges		45.45
Energy Commission Surcharge		0.18
Total Pioneer Community Energy Electric Generation Charges		\$45.63

Pioneer is committed to protecting customer privacy. See our privacy policy at pioneercommunityenergy.ca.gov/customer-privacy/

Pioneer customers pay this for electricity. Pioneer receives no additional funds.

Pioneer's billing details are on a separate page

Monthly Cost Comparison



E1	PG&E	Pioneer Standard	Pioneer Green 100
Generation Rate (\$/kWh)	\$0.11209	\$0.07719	\$0.08807
PG&E Delivery Rate (\$/kWh)	\$0.16613	\$0.16613	\$0.16613
PG&E PCIA/FF (\$/kWh)	N/A*	\$0.04458	\$0.04458
Total Electricity Cost (\$/kWh)	\$0.27822	\$0.28790	\$0.29878
Average Monthly Bill (\$)	\$203.79	\$210.88	\$218.71

A1	PG&E	Pioneer Standard	Pioneer Green 100
Generation Rate (\$/kWh)	\$0.10819	\$0.07456	\$0.08544
PG&E Delivery Rate (\$/kWh)	\$0.14732	\$0.14732	\$0.14732
PG&E PCIA/FF (\$/kWh)	N/A*	\$0.04324	\$0.04324
Total Electricity Cost (\$/kWh)	\$0.25551	\$0.26512	\$0.276
Average Monthly Bill (\$)	\$700.09	\$726.43	\$756.24

*Bundled customers pay a PCIA rate, but PG&E folds it into its generation rate. It changes annually, but the amount is not disclosed on the details electric billing page.

Pioneer has 19,160 solar (NEM) customers

- Net Surplus Compensation (NSC) Rate
- Indexed to PG&E's
- Updated monthly to be \$0.005 higher

Automatic Annual Cash Out –

- Based previous 12 months usage
- Customers with more kWh generated then used received NSC
- Extra kWh multiplied by the NSC rate for the 12th month
- Customers >\$25 receive a check
- Customers <\$25 receive credit on bill

Customers Who Received Checks				
Number	Pioneer Cash out	PG&E Cashout	Difference	
1,996	\$ 174,522	\$ 145,618	\$	28,903

Customers Who Received Credits				
Number	Pioneer Cash out	PG&E Cashout	Difference	
1,410	\$ 15,587	\$ 13,004	\$	2,584

Key Accounts Engagement

- Referrals from back office for additional support
- Survey
- Expansion
- Regionalization

Residential Accounts Engagement

- Answer rates and billing questions
- Explain how to read the bill (for NEM and non-NEM)
- Promote energy efficiency
- Discuss rate plan options
- Ensure awareness of various programs (CARE/FERA/mPOWER, etc.)

Community Engagement

- Auburn COC GAED
- Placer County Economic Development Board
- Foresthill Downtown Vibrancy
- Attend Chamber Government Relationship Committee Meetings

PSPS Mitigation and PG&E Operations

- Work collaboratively internally/externally to minimize PSPS impact
- Develop electric grid reference data & facilitate procurement efforts

- Only PG&E can disconnect customer's utility service
- Staff may introduce a bad debt policy to the Board later this year addressing non-payment
- Historically low volume of write-offs (1/2% of sales)
- With COVID, PG&E invoked a disconnection moratorium
 - PG&E moratorium scheduled to end June 2021 (may be moved to a later date)
 - May initiate disconnections in August 2021 following notification process
- CPUC proceedings to address outstanding debt
 - Arrearage Management Plan – Pioneer participating
 - Percent Income Payment Plan – In process
 - Debt Management



California Alternate Rates for Energy

CPUC program administered by PG&E provides 20% discount on entire utility bill for income qualified individuals. All customers may participate.



Family Electric Rates Assistance

CPUC program administered by PG&E provides 18% discount on electricity bill for households of 3 or more that meet income qualifications.



Medical Baseline

CPUC program administered by PG&E provides an additional allotment of electricity and/or gas per month (approx. 500 kWh) at the lowest price available on the customer's rate plan.



Bill Protection Program

A Pioneer program that allows customers on a flat rate (E-1) to try TOUC rate (time of use) without risk. If a customer tries TOUC and pays more than he/she would have on the flat rate, the customer is refunded that difference.



Arrearage Management Plan Program

Pioneer customers on CARE/FERA have 1/12th of the customer's outstanding utility debt amassed under the COVID Emergency Suspension of Discussions waived with each on-time monthly payment, up to \$8,000

Property Assessed Clean Energy (PACE) Financing

- Financing for energy efficiency improvements permitted under Title 24 for residences and businesses. Repaid through an assessment on the property tax roll.
- Operating since 2010.
- Available in Placer County, Nevada County, Auburn, Colfax, Folsom, Grass Valley, Lincoln, Loomis, Nevada City, Rocklin, Roseville, Truckee.
- Placer County permitted private sector PACE programs in unincorporated areas in 2020
- mPOWER since inception has funded more than \$100 million in improvements
- Most contractors located within Placer County and surrounding region
- mPOWER became a Pioneer Program in 2017
 - As a Pioneer program, mPOWER has funded \$17.7 million

➤ **The Pioneer Board receives an mPOWER report each month as part of the agenda packet.**

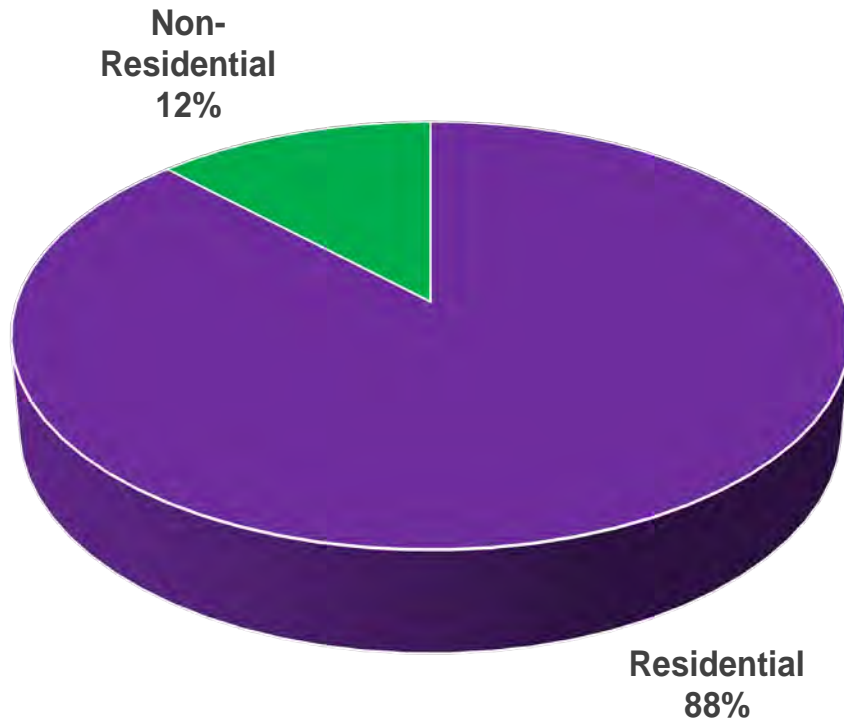


FINANCE

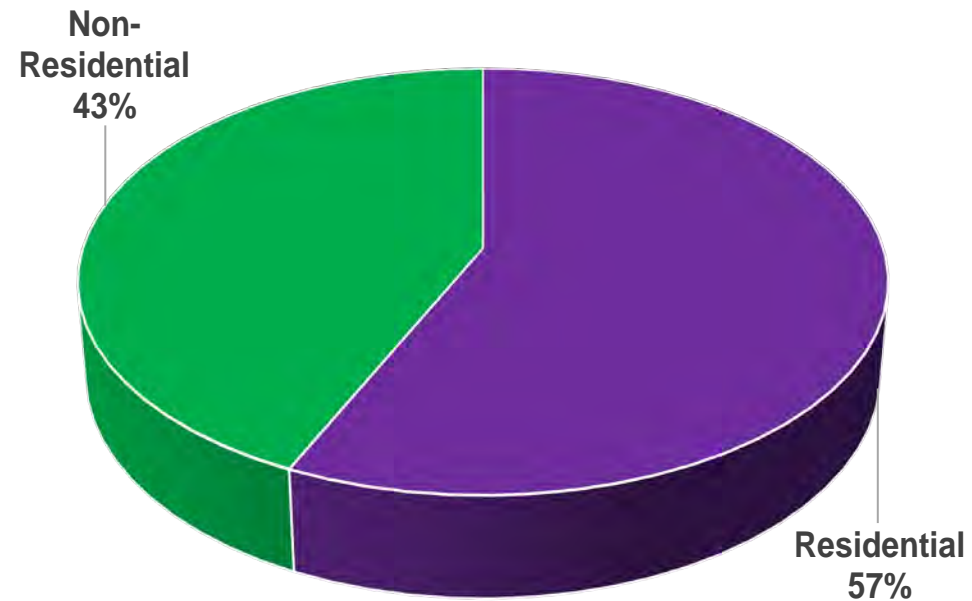


Customer Accounts and Energy Sales

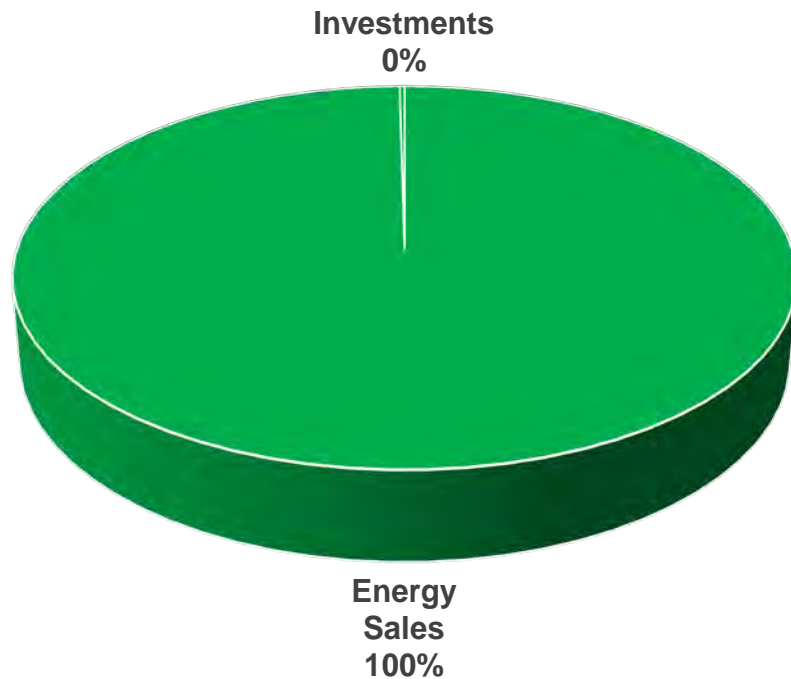
93,000 CUSTOMER ACCOUNTS



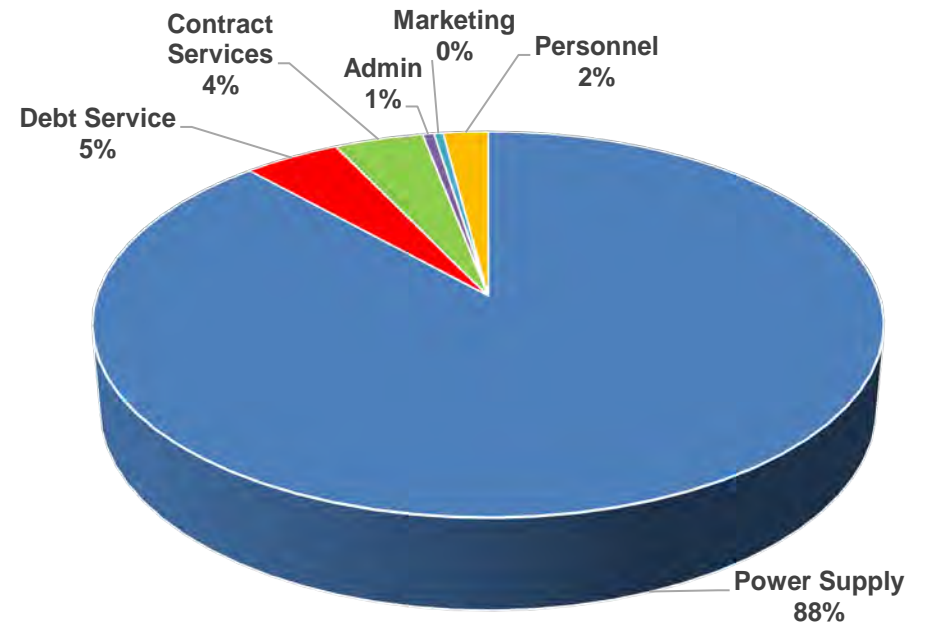
1.1 MILLION MWh's ENERGY SALES



TOTAL REVENUES \$86.3 MILLION



TOTAL EXPENSES \$85.6 MILLION

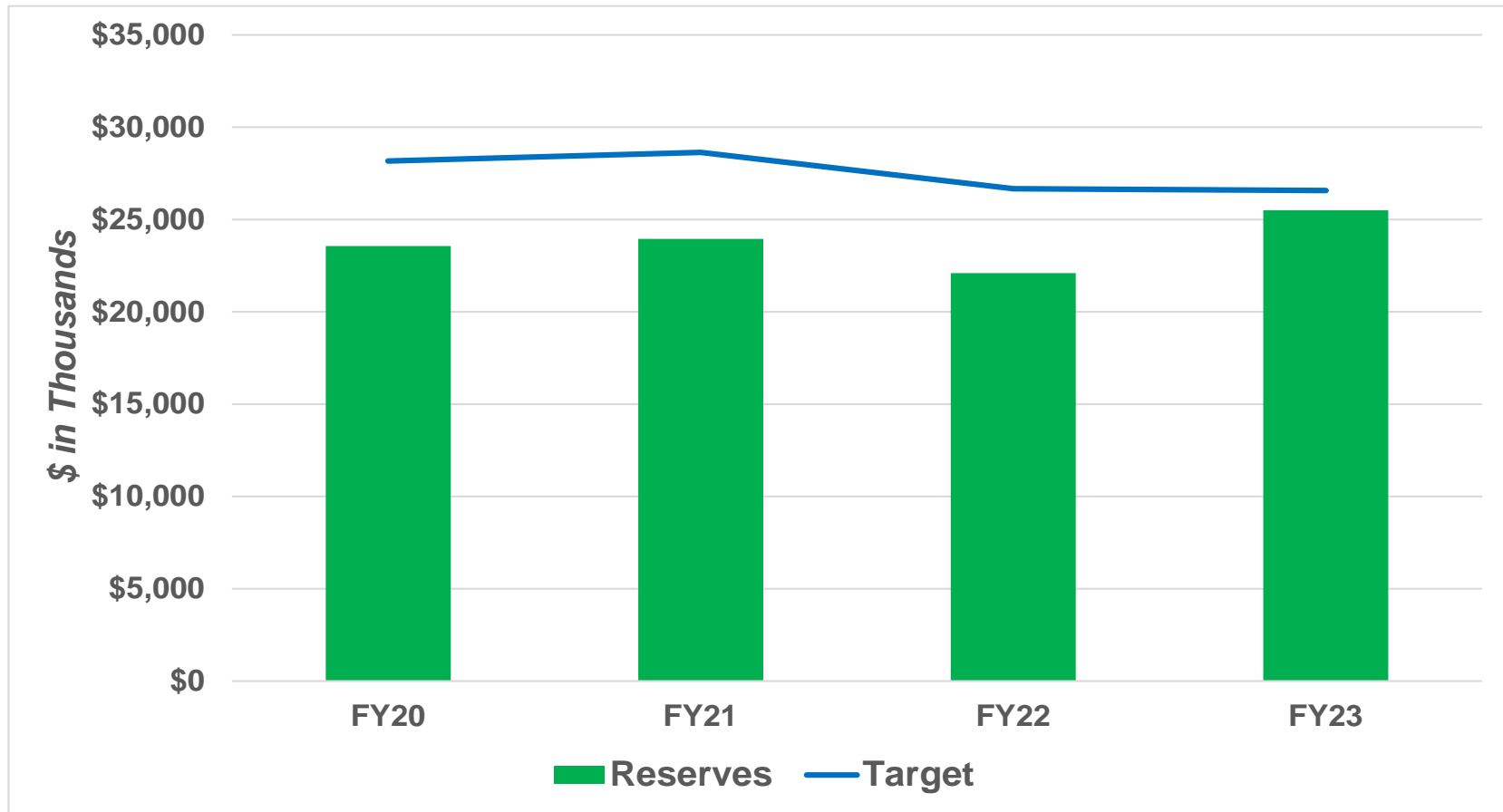


Power supply costs, which fluctuate with demand and market price volatility, are about 88% of total expenses

Low fixed costs keeps Pioneer nimble to respond to a changing environment

- Plan for contingency
- Assist in obtaining a credit rating and maintaining good relationships with suppliers
- Avoid interest expense by not having to borrow for short-term needs
- Bridge for times of the year when Pioneer would experience low levels of cash
- Rate Stability
- Funding for Biomass Procurement
- Funding for Programs

Reserves



Does not include expansion

Reserves policy sets target for 120 days of cash on hand based on rolling 12 months forecasts

- Load settled at CAISO at hourly prices (index)
- Board approved Energy Risk Management Policy
 - Approved counterparties, products and quantity
 - Delegation of authority – up to 5 years
 - Risk Oversight Committee meets quarterly
 - Energy Risk Procurement Committee reviews PPA's > 5 Years
- Min/Max tolerance bands - % of load covered w/fixed-priced energy to hedge hourly load costs
 - “Laddering strategy”
 - Price diversification
 - Improves budget certainty

- Protection of our customer data is top priority
- CPUC ordered Automated Meter Infrastructure (“AMI”) Audit every three years (next one in 2022)
- Staff just completed an audit of our IT systems and infrastructure
 - IT policies will be presented to the Board over the next few months
 - Conducting employee training on cybersecurity such as understanding phishing attacks, etc.
 - Upgraded our services with our IT consulting firm
 - Consult with other CCA’s
 - Staff committed to annual IT audits to stay current



ENERGY PROCUREMENT



How Much Electricity?

- Typical residential home in Pioneer's territory uses 650 kWh in a month or 7,800 kWh's in a year or 7.8 MWh
- Pioneer's peak Demand is ~ 320 MW
 - Will increase to 560 MW with expansion
- Pioneer's energy consumption is ~ 1,100,000 MWh's per year
 - Will increase to 1,800,000 MWh's per year with the expansion

CAISO Operates the Grid

- One of nine grid operators in the US
- Pioneer schedules 100% of its load and resources into the CAISO
- The CAISO is responsible for the second-to-second balancing of Load and Supply

U.S. electric power regions



CAISO – How it Works

Sellers include Energy
Marketers and
Generators



Settlements



Pioneer interacts with CAISO
through a Scheduling
Coordinator

Buyers

CAISO transmits
power through PG&E's
transmission system



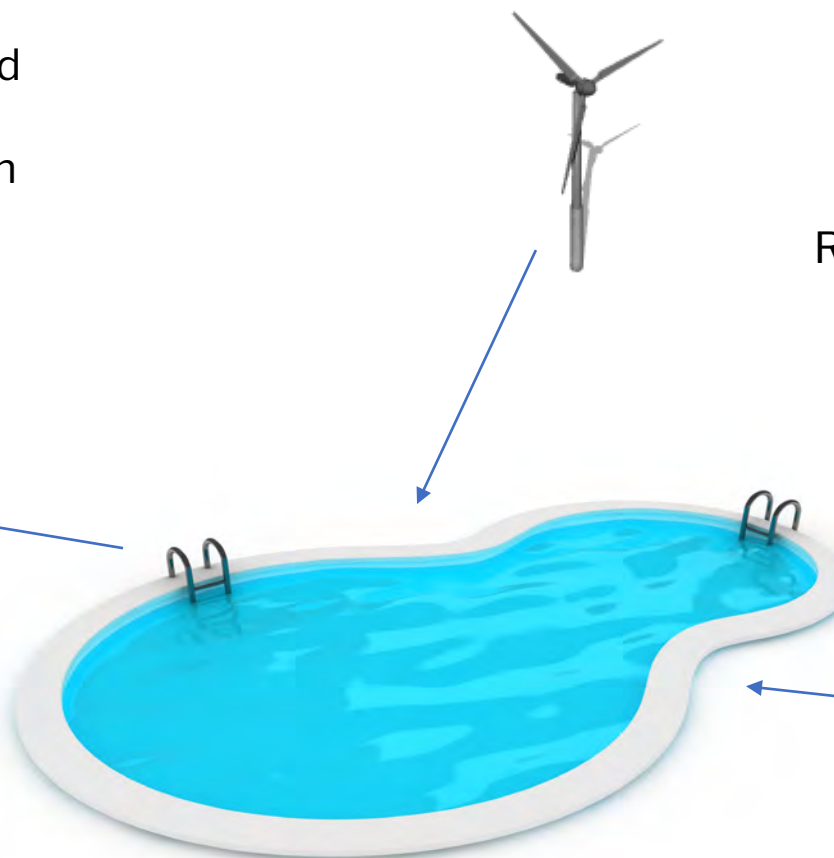
Daily Pioneer forecasts its load
and submits hourly schedules
to CAISO

Flow of Electricity

All load-serving entities in the CAISO, such as Pioneer, received electricity from the supply mix from the CAISO at that instant in time – “system power”



Each MWh of Clean energy generates Renewable Energy Certificates (REC). The owner/buyer is the only entity that can claim the environmental attributes



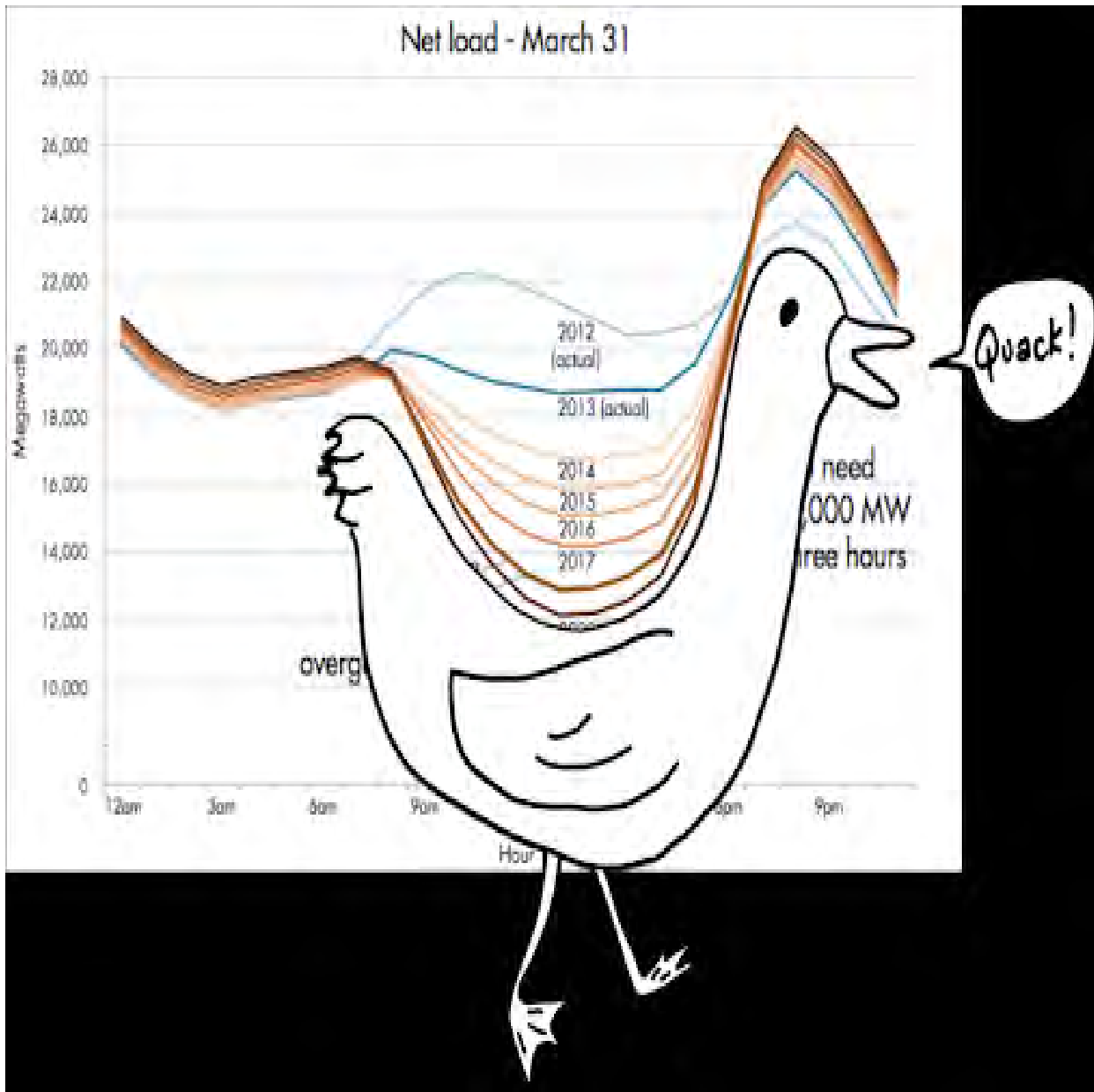
Renewable energy is produced onto the CAISO grid



Conventional energy is produced onto the CAISO grid

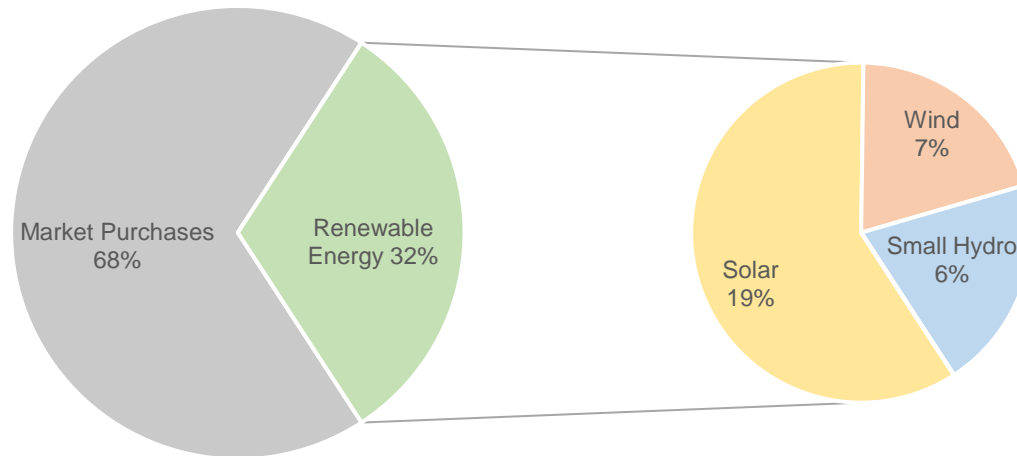


The “Duck Curve”

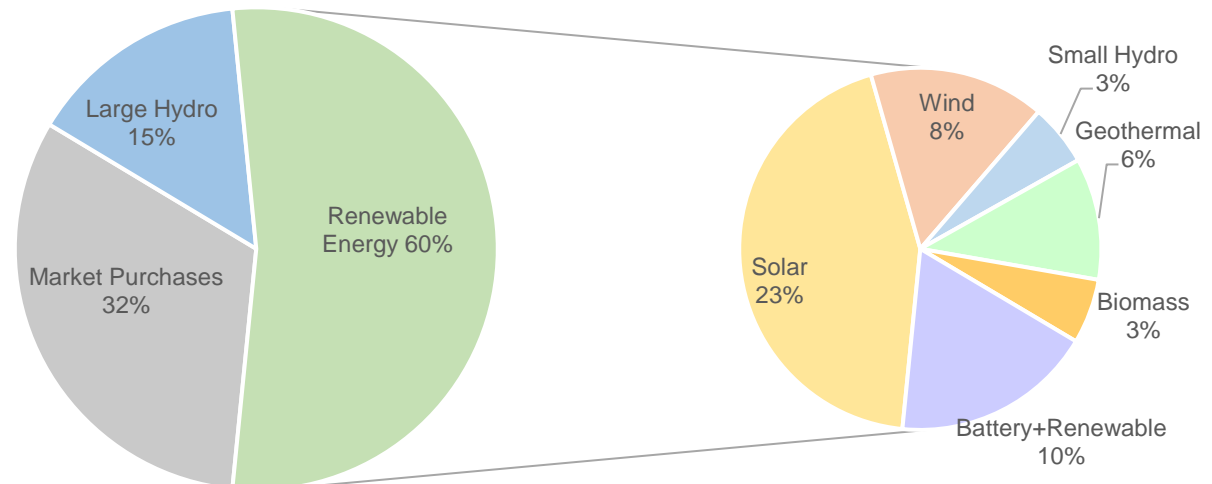


- Net Load = Load minus rooftop solar
- Overgeneration of electricity from solar “belly of the duck”
- Prices during the belly of the duck can be negative
- Leads to curtailment of clean energy
- High ramp cost at “neck of the duck” 4pm – 7pm
- Pioneer has a high penetration of rooftop solar and a steep ramp
- Big problem for California

2021 Energy Resources



2030 Energy Resources



Energy Projects Overview

System Energy

- Energy from the California Independent System Operator (CAISO) (CAISO serves as the central clearinghouse for all energy delivered into its balancing authority)

Renewable Energy

- Energy produced by solar, wind, biomass, geothermal, small hydro, and other biofuels

Other GHG-Free Energy

- Energy that is produced from non-carbon emitting resources such as nuclear and large hydro facilities (over 30 MW)

Resource Adequacy (RA) Capacity

- Generating capacity that is procured to ensure system reliability
- RA products are categorized in consideration of resource locations and operating characteristics: System, Local, and Flex RA

Renewable Energy Compliance Categories

Portfolio Content Category (PCC) 1

- Bundled electric energy and Renewable Energy Certificates (RECs) contemporaneously delivered to a California Balancing Authority without substituting electricity from another source.
- Highest cost

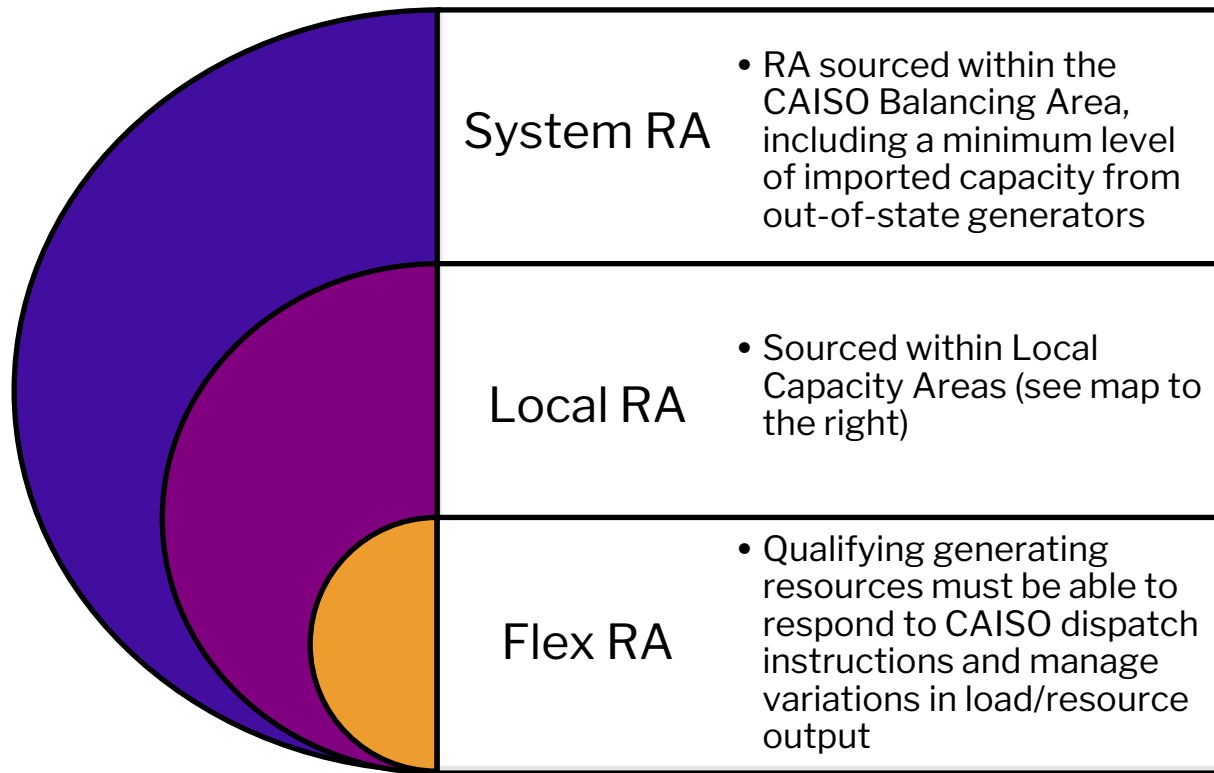
Portfolio Content Category 2

- Bundled renewable energy generated outside of California with incremental electric import requirements
- GHG emissions are based on source of imported power

Portfolio Content Category 3

- Unbundled renewable/environmental attributes
- Lowest cost
- Limited compliance value

Resource Adequacy Compliance Categories



Regulatory Compliance and Board Direction

RPS and RA Requirements

- 60% Renewable requirement by 2030
- 65% long-term renewable requirement
- Year ahead and multi-year local RA requirements

GHG Emissions Requirements

- 38 MMT and 46 MMT scenario emission requirements by 2030

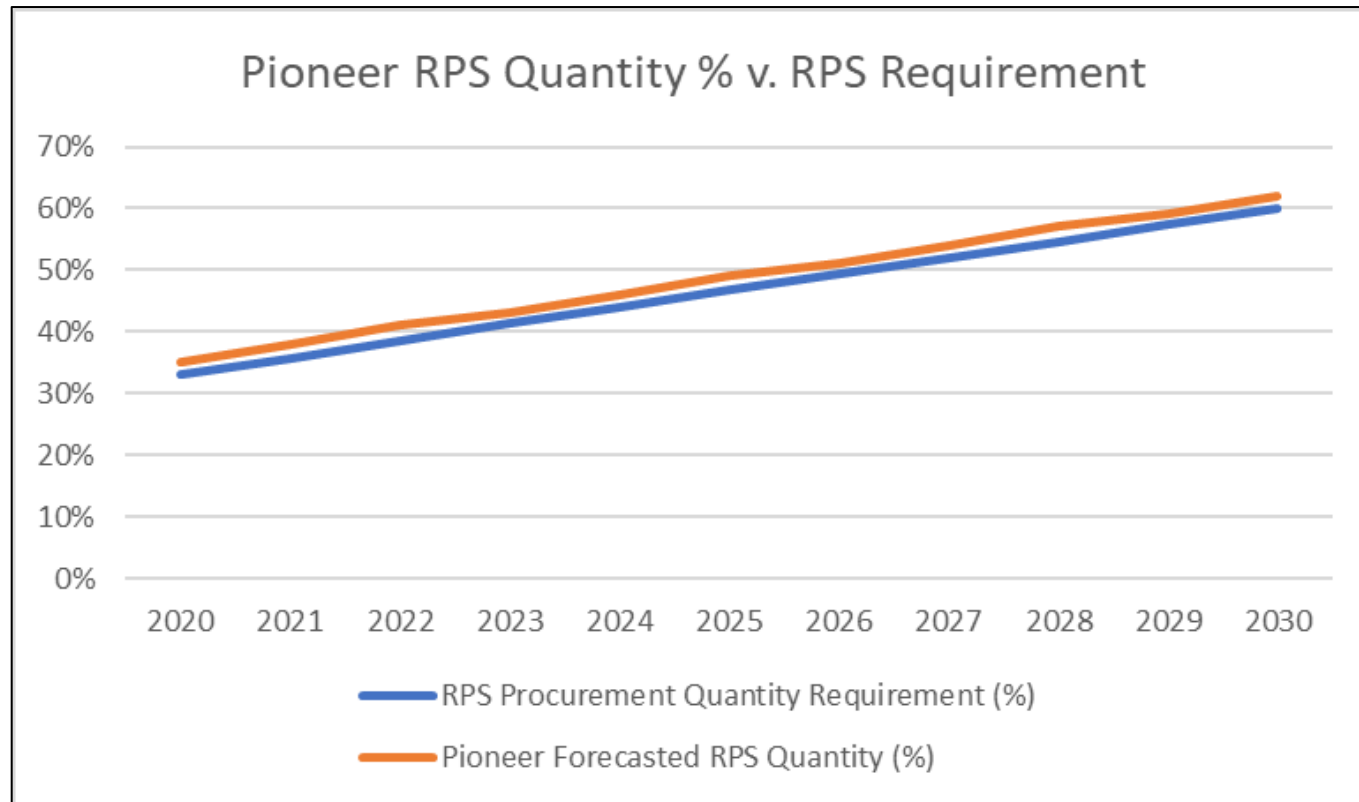
Board Direction

- Meet minimum RPS and GHG-emission requirements
- Incorporate biomass as part of renewable portfolio resource mix

Procurement and Risk Oversight Committee Direction

- Meet established hedge thresholds by resource type and year
- Do not exceed established procurement or credit risk limits nor violate any other Risk Policy requirements

RPS Portfolio (2020 RPS Procurement Plan)



	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
RPS Procurement Quantity Requirement (%)	33%	36%	39%	41%	44%	47%	49%	52%	55%	57%	60%
Pioneer Forecasted RPS Quantity (%)	35%	38%	41%	43%	46%	49%	51%	54%	57%	59%	62%

Pioneer's 38 MMT portfolio provides for the following **overall resource** mix in 2030:

- 104 MW of large hydro
- 5 MW of Biomass
- 10 MW of Geothermal
- 13 MW of Small Hydro
- 39 MW of Wind
- 169 MW of Solar
- 57 MW of Short Duration Battery Storage
- 10 MW of Long Duration Storage
- 230 MW of Natural Gas/Other (capacity-only)

Pioneer's 46 MMT portfolio provides for the following **overall resource** mix in 2030:

- 64 MW of large hydro
- 5 MW of Biomass
- 10 MW of Geothermal
- 13 MW of Small Hydro
- 39 MW of Wind
- 169 MW of Solar
- 57 MW of Short Duration Battery Storage
- 10 MW of Long Duration Storage
- 230 MW of Natural Gas/Other (capacity-only)

2030 Benchmark and Results (million metric tons)	38 MMT Portfolio	46 MMT Portfolio
Benchmark for Pioneer	0.161	0.202
Pioneer	0.160	0.202

Desired Survey Reach - Residential Survey

Pioneer Power Mix 2019	
Percent of Total Retail Sales	
Renewable Procurements	29.6%
Biomass & Biowaste	0.0%
Geothermal	11.5%
Eligible Hydroelectric	11.3%
Solar	0.0%
Wind	6.9%
Coal	0.0%
Large Hydroelectric	0.0%
Natural gas	0.0%
Nuclear	0.0%
Other	0.0%
Unspecified Power	70.4%
Total	100.0%

Under California's Power Source Disclosure Program, retail energy providers like Pioneer Community Energy are required to disclose to their customers on an annual basis energy purchases that occurred during the prior year. The report includes both renewable and conventional fuel sources.

An "unspecified power" source refers to electricity that is not traceable to a specific generating facility, such as electricity traded through open market transactions.



REGULATORY AND LEGISLATIVE



- **1911:** The CPUC was established as the Railroad Commission
- **Today:** CPUC regulates privately-owned electric, natural gas, telecommunications, water, railroad, rail transit and passenger transportation companies
- **Budget:** \$1.7 billion for FY 2020-21
- **Staff:** 1,400+

CPUC Leadership and Mission



Marybel Batjer;
President
(appointed 2019)



Martha Guzman Aceves
(appointed 2016)



Cliff
Rechtschaffen
(appointed 2016)



Genevieve
Shironna
(appointed 2019)



Darci Houck
(appointed 2021)

Mission: Empower California through access to safe, clean, and affordable utility services and infrastructure

- Certify CCA Implementation Plans
- Resource Adequacy (“RA”) – CPUC also has authority to ensure that CCAs purchase enough energy to serve their customers
- Renewable Portfolio Standard (“RPS”) – CCAs are subject to the same RPS requirements as the IOUs
- Integrated Resource Planning (“IRP”) – CPUC oversees the IRP process for all LSE’s to ensure they meet GHG reduction and reliability
- Authorize non-bypassable charges that affect our rates

- Investor-owned utilities (“IOUs”) procure electricity on behalf of their customers
 - When customers leave to take service under a CCA, they are responsible for paying for the costs of legacy resources purchased prior to their transition to a CCA
 - Those costs are recovered via the PCIA

- As of March 1st, the average PCIA is 4.6 cents/kWh
- The PCIA increase has temporarily impacted Pioneer's rate position compared to PG&E
- Pioneer customers do not get the benefits of the resources purchased on their behalf
- The PCIA has increased over 900% since 2013
 - Closure of Diablo Canyon Power Plant should reduce PCIA

- IRP is a process to ensure that the electricity sector is on track to meet its portion of 2030 GHG reduction goals
- SB 350: Established a goal of total economy-wide goal of reducing emissions 40% below 1990 levels by 2030
 - LSE’s forecasted ability to meet a 2030 GHG target representing its pro rata share of the broader electricity sector target of 46 MMT
- LSE’s must participate in a 2-year IRP process established by the CPUC
- Pioneer submitted its most recent IRP in September 2020

Key Regulatory Proceedings Involvement

Proceeding	Issue	Pioneer Position
R.17-06-026	Power Charge Indifference Adjustment (PCIA)	Reduce the PCIA and rate volatility for CCA customers; increase data transparency from the IOUs
R.17-09-020	2019-2020 Resource Adequacy (RA) Rulemaking Tracks 2, 3, and 4	Refine the current RA Program construct; reduce volatility of RA prices; increase RA procurement availability
R.18-12-005	Utility De-energization/PSPS	Reduce impacts of PSPS events; increase coordination and communications with IOUs to ensure public safety during de-energization; limit PSPS impact on CCA load scheduling
R.19-09-009	Microgrids Rulemaking	Engage to ensure CCA input/access to microgrid funds and cooperation with IOUs on microgrid programs; working with IOUs in the deployment of new microgrid programs
A.20-02-009; TBD	PG&E 2020 Energy Resource Recovery Account (ERRA) Compliance Application; PG&E's 2022 ERRA Forecast proceeding	Reduce the ERRA impact on the PCIA; increase data transparency from the IOUs

Key Legislative Bill Involvement

Bill	Author	Description	Status	CalCCA Position
AB 322	Salas	Requires the Energy Commission to allocate at least 20% of EPIC funds to bioenergy projects for biomass conversion.	Referred to Assembly Utilities and Energy.	Watch; Pioneer recommends support
AB 843	Aguiar-Curry	Allows CCAs to participate on the Bioenergy Market Adjusting Tariff (BioMAT). Bill is co-sponsored by MCE and Pioneer.	Referred to Assembly Utilities and Energy. LegCom voted to recommend support to the Board.	TBD; Pioneer recommends support
SB 52	Dodd	Adds de-energization events to the definition of "sudden and severe energy shortage" for purposes of classifying de-energization events as natural disasters.	Senate Governmental Organization, 3/9. CalCCA has begun to analyze.	TBD; Pioneer recommends support
SB 99	Dodd	Community Energy Resiliency Act of 2021. Requires the commission to develop and implement a grant program for local governments to develop energy resilience plans.	Referral pending. CalCCA has begun to analyze.	TBD; Pioneer recommends support
SB 612	Portantino	Proposes the power charge indifference adjustment (PCIA) Working Group 3 report to ensure fair and equal access to the benefits of legacy resources held in IOU portfolios and address the management of these resources to maximize value for all customers. Bill is sponsored CalCCA.	Referral pending	Support; Pioneer recommends support



KEY DEFINITIONS



Key Terms



CAISO – California Independent System Operator - a non-profit independent system operator that oversees the operation of the California bulk electric power system, transmission lines and electricity market generated and transmitted by its members (~80% of California's electric flow). Its stated mission is to “operate the grid reliably and efficiently, provide fair and open transmission access, promote environmental stewardship and facilitate effective markets and promote infrastructure development. CAISO is regulated by FERC and governed by a five-member governing board appointed by the governor.

CALCCA – California Community Choice Association – Association made up of Community Choice Aggregation (CCA) groups which represents the interests of California's community choice electricity providers.

CARB – California Air Resources Board – The CARB is charged with protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change in California.

CEC – California Energy Commission

CPUC – California Public Utility Commission

C&I – Commercial and Industrial – Business customers

CP – Compliance Period – Time period to become RPS compliant, set by the CPUC (California Public Utilities Commission)

DA – Direct Access – An option that allows eligible customers to purchase their electricity directly from third party providers known as Electric Service Providers (ESP).

DAC – Disadvantaged Community

DASR – Direct Access Service Request – Request submitted by C&I to become direct access eligible.

Key Terms



Demand - The rate at which electric energy is delivered to or by a system or part of a system, generally expressed in kilowatts (kW), megawatts (MW), or gigawatts (GW), at a given instant or averaged over any designated interval of time. Demand should not be confused with Load or Energy.

DER – Distributed Energy Resource – A small-scale physical or virtual asset (e.g. EV charger, smart thermostat, behind-the-meter solar/storage, energy efficiency) that operates locally and is connected to a larger power grid at the distribution level.

Distribution - The delivery of electricity to the retail customer's home or business through low voltage distribution lines.

DLAP – Default Load Aggregation Point – In the CAISO's electricity optimization model, DLAP is the node at which all bids for demand should be submitted and settled. Pioneer settles its CAISO load at the PG&E DLAP as Pioneer is in the PG&E transmission access charge area.

DR – Demand Response - An opportunity for consumers to play a significant role in the operation of the electric grid by reducing or shifting their electricity usage during peak periods in response to time-based rates or other forms of financial incentives.

DWR – Department of Water Resources – DWR manages California's water resources, systems, and infrastructure in a responsible, sustainable way.

ELCC – Effective Load Carrying Capacity – The additional load met by an incremental generator while maintaining the same level of system reliability. For solar and wind resources the ELCC is the amount of capacity which can be counted for Resource Adequacy purposes.

EPIC – Electric Program Investment Charge – The EPIC program was created by the CPUC to support investments in clean energy technologies that provide benefits to the electricity ratepayers of PG&E, San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE)

ERRA – Energy Resource Recovery Account – ERRA proceedings are used to determine fuel and purchased power costs which can be recovered in rates. The utilities do not earn a rate of return on these costs, and only recover actual costs. The costs are forecast for the year ahead. If the actual costs are lower than forecast, then the utility gives money back, and vice versa.

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ESP – Energy Service Provider - An energy entity that provides service to a retail or end-use customer.

EV – Electric Vehicle

GHG – Greenhouse gas - water vapor, carbon dioxide, tropospheric ozone, nitrous oxide, methane, and chlorofluorocarbons (CFCs). A gas that causes the atmosphere to trap heat radiating from the earth. The most common GHG is Carbon Dioxide, though Methane and others have this effect as well.

GRC – General Rate Case – Proceedings used to address the costs of operating and maintaining the utility system and the allocation of those costs among customer classes. For California's three large IOUs, the GRCs are parsed into two phases. Phase I of a GRC determines the total amount the utility is authorized to collect, while Phase II determines the share of the cost each customer class is responsible and the rate schedules for each class. Each large electric utility files a GRC application every three years for review by the Public Advocates Office and interested parties and approval by the CPUC.

GWh – Gigawatt-hour - The unit of energy equal to that expended in one hour at a rate of one billion watts. One GWh equals 1,000 megawatt-hours.

IEP – Independent Energy Producers – California's oldest and leading nonprofit trade association, representing the interest of developers and operators of independent energy facilities and independent power marketers.

IOU – Investor-Owned Utility – A private electricity and natural gas provider.

IRP – Integrated Resource Plan – A plan which outlines an electric utility's resource needs in order to meet expected electricity demand long-term.

Key Terms



kW – Kilowatt – Measure of power where power (watts) = voltage (volts) x amperage (amps) and 1 kW = 1000 watts

kWh – Kilowatt-hour – This is a measure of consumption. It is the amount of electricity that is used over some period of time, typically a one-month period for billing purposes. Customers are charged a rate per kWh of electricity used.

LCFS – Low Carbon Fuel Standard – A CARB program designed to encourage the use of cleaner low-carbon fuels in California, encourage the production of those fuels, and therefore, reduce greenhouse gas emissions.

LCR – Local (RA) Capacity Requirements – The amount of Resource Adequacy capacity required to be demonstrated in a specific location or zone.

LMP – Locational Marginal Price – Each generator unit and load pocket is assigned a node in the CAISO optimization model. The model will assign a LMP to the node in both the day-ahead and real time market as it balances the system using the least cost. The LMP is comprised of three components: the marginal cost of energy, congestion and losses. The LMP is used to financially settle transactions in the CAISO.

Load - An end use device or customer that receives power from an energy delivery system. Load should not be confused with Demand, which is the measure of power that a load receives or requires. See Demand.

LSE – Load-serving Entity – Entities that have been granted authority by state, local law or regulation to serve their own load directly through wholesale energy purchases and have chosen to exercise that authority.

NEM – Net Energy Metering – A program in which solar customers receive credit for excess electricity generated by solar panels.

NRDC – Natural Resources Defense Council

OIR – Order Instituting Rulemaking - A procedural document that is issued by the CPUC to start a formal proceeding. A draft OIR is issued for comment by interested parties and made final by vote of the five Commissioners of the CPUC.

MW – Megawatt – measure of power. A megawatt equals 1,000 kilowatts or 1 million watts.

MWH – Megawatt-hour – measure of energy

NP-15 – North Path 15 – NP-15 is a CAISO pricing zone usually used to approximate wholesale electricity prices in northern California in PG&E’s service territory.

PCC1 – RPS Portfolio Content Category 1 – Bundled renewables where the energy and REC are dynamically scheduled into a California Balancing Authority (CBA) such as the CAISO. Also known as “in-state” renewables.

PCC2 – RPS Portfolio Content Category 2 – Bundled renewables where the energy and REC are from out-of-state and not dynamically scheduled to a CBA.

PCC3 – RPS Portfolio Content Category 3 – Unbundled REC

PCIA or “exit fee” - Power Charge Indifference Adjustment (PCIA) is an “exit fee” based on stranded costs of utility generation set by the California Public Utilities Commission. It is calculated annually and assessed to customers of CCAs and paid to the IOU that lost those customers as a result of the formation of a CCA.

PCL – Power Content Label – A user-friendly way of displaying information to California consumers about the energy resources used to generate the electricity they sell, as required by AB 162 (Statute of 2009) and Senate Bill 1305 (Statutes of 1997).

PD – Proposed Decision – A procedural document in a CPUC Rulemaking process that is formally commented on by Parties to the proceeding. A PD is a precursor to a final Decision voted on by the five Commissioners of the CPUC.

Pnode – Pricing Node – In the CAISO optimization model, it is a point where a physical injection or withdrawal of energy is modeled and for which a LMP is calculated.

PPA – Power Purchase Agreement – A contract used to purchase the energy, capacity and attributes from a renewable resource project.

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RA – Resource Adequacy - Under its Resource Adequacy (RA) program, the California Public Utilities Commission (CPUC) requires load-serving entities—both independently owned utilities and electric service providers—to demonstrate in both monthly and annual filings that they have purchased capacity commitments of no less than 115% of their peak loads.

RE – Renewable Energy - Energy from a source that is not depleted when used, such as wind or solar power.

REC - Renewable Energy Certificate - A REC is the property right to the environmental benefits associated with generating renewable electricity. For instance, homeowners who generate solar electricity are credited with 1 solar REC for every MWh of electricity they produce. Utilities obligated to fulfill an RPS requirement can purchase these RECs on the open market.

RPS - Renewables Portfolio Standard - Law that requires CA utilities and other load serving entities (including CCAs) to provide an escalating percentage of CA qualified renewable power (culminating at 33% by 2020) in their annual energy portfolio.

SCE – Southern California Edison

SDG&E – San Diego Gas & Electric

SGIP – Self-Generation Incentive Program – A program which provides incentives to support existing, new, and emerging distributed energy resources (storage, wind turbines, waste heat to power technologies, etc.)

Time-of-Use (TOU) Rates — The pricing of delivered electricity based on the estimated cost of electricity during a particular time-block. Time-of-use rates are usually divided into three or four time-blocks per 24-hour period (on-peak, mid-peak, off-peak and sometimes super off-peak) and by seasons of the year (summer and winter). Real time pricing differs from TOU rates in that it is based on actual (as opposed to forecasted) prices that may fluctuate many times a day and are weather sensitive, rather than varying with a fixed schedule.

Key Terms



TURN – The Utility Reform Network - A ratepayer advocacy group charged with ensuring that California IOUs implement just and reasonable rates.

Unbundled RECs - Renewable energy certificates that verify a purchase of a MWH unit of renewable power where the actual power and the certificate are “unbundled” and sold to different buyers.

VPP – Virtual Power Plant – A cloud-based network that leverages an aggregation of distributed energy resources (DERs) to shift energy demand or provide services to the grid. For example, thousands of EV chargers could charge at a slower speed and hundreds of home batteries could discharge to the grid during a demand peak to significantly reduce the procurement of traditional supply resources.



SUPPLEMENTAL



Ad Hoc Energy Procurement Review Committee

Pioneer Board Resolution 2021-1 authorizes the Executive Director to execute energy contracts greater than five (5) years in length (from contract execution date) subject to the review and approval by the Energy Procurement Review Committee (“EPRC”). Long-term power purchase agreements (“PPAs”) are periodically necessary to fulfill regulatory requirements (e.g., Renewables Portfolio Standard), and for portfolio optimization. The role of the EPRC is to review and approve pending long-term PPAs.

Composition	2021 Roster	Action Needed
<ul style="list-style-type: none">-Three Board Members-Board Members and Alternate Board Members can serve-General Counsel-Legal Consultant specializing in long-term PPAs	<p>Greg Janda, Rocklin</p> <p>Jeff Duncan, Loomis</p> <p>Alice Dowdin Calvillo, Auburn</p>	None

Audit & Finance Committee

The purpose of the Audit & Finance Committee is to oversee the accounting and financial reporting process and the audit of Pioneer's financial statements by the independent auditor, budgeting, financial planning, review financial and administrative policies, monitor internal controls and oversee investment strategies. The Committee will meet a minimum of twice a year and as needed. The Committee reports to the Governing Board. The Committee is a Brown-Act meeting.

Composition	2021 Roster	Action Needed
<ul style="list-style-type: none">-Three Board Members-Board Members and Alternate Board Members and member agency staff nominated by a Board Member can serve.-General Counsel-Treasurer-Auditor	<p>Committee Chair - Greg Janda, Rocklin</p> <p>Committee Vice Chair - Jeff Duncan, Loomis</p> <p>Dan Karleskint - Lincoln</p>	None

Ad Hoc Expansion Committee

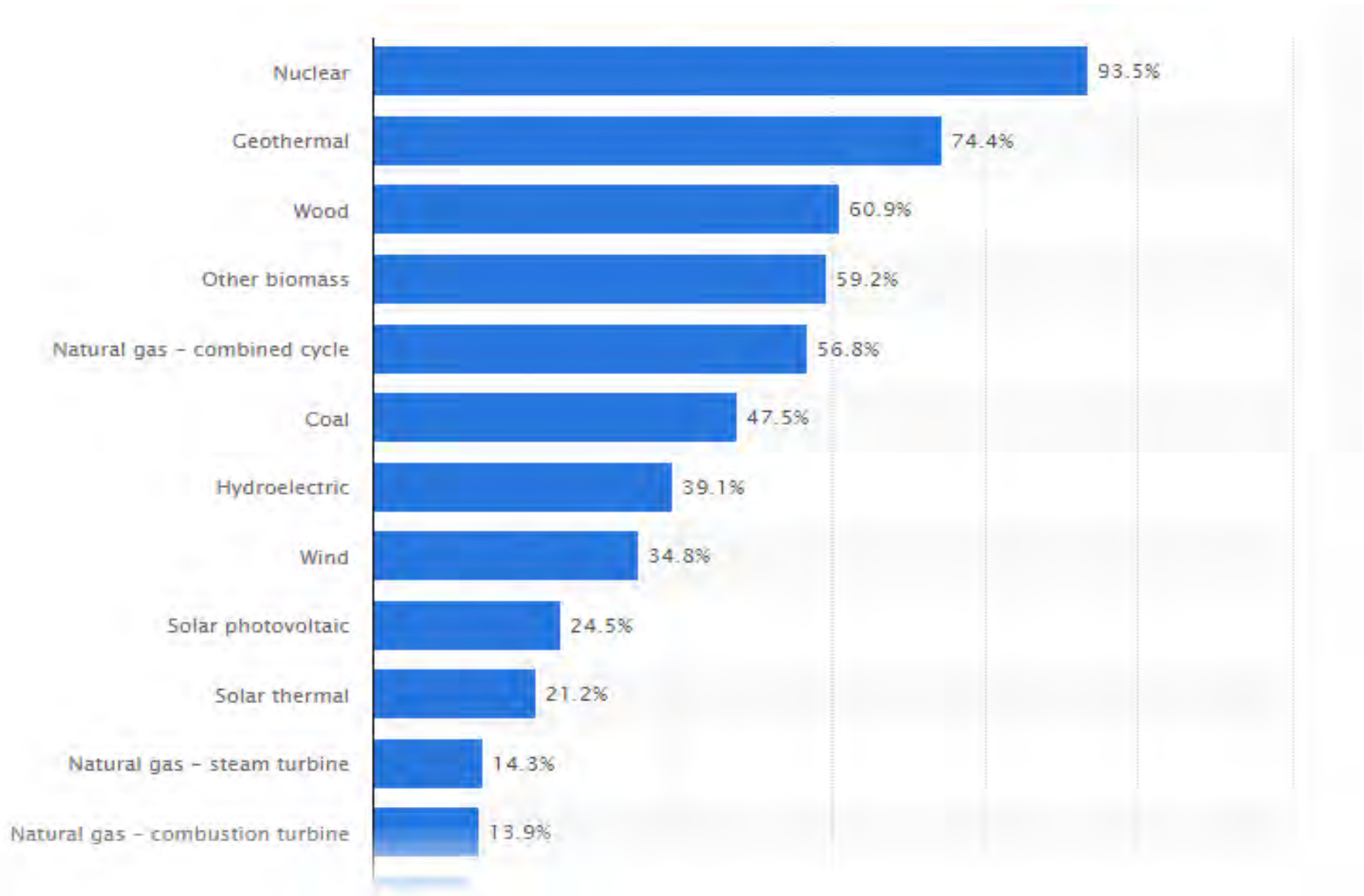
The purpose of the Expansion Committee is to research concepts regarding possible expansion outside of current Pioneer service territory, to meet with representatives or officials from jurisdictions requesting Pioneer service, and to report to the Board on that information.

Composition	2021 Roster	Action Needed
-Two Board Members -Board Members and Alternate Board Members can serve -General Counsel	Jim Holmes, Placer County Alice Dowdin Calvillo, Auburn	None

- A Watt – measure of electricity
 - Example: a light bulb can use 100 watts
 - 10 light bulbs – 1,000 watts or 1 kilowatt (kW)
 - 1,000,000 watts = 1,000 kW
 - 1,000 kW = 1 Megawatt (MW)
- Demand is the instantaneous measure of power
 - If you turn on 10 – 100 watt light bulbs at the same time, the demand = 1,000 watts
- Energy measures the amount of electricity used over time
 - A 100-watt light bulb used for one hour = 1 kilowatt-hour (kWh)
 - 1 MW over 10 hours = 10 MWh's

- Capacity is the amount of electricity a Power Plant can produce at any one time measured in MW
- Capacity Factor (“CF”) – the % of time a Power Plant can produce electricity
 - A solar project can operate at its maximum output 30% of the time = 30% CF
- Voltage is the pressure needed to move electricity through wires
 - Measured in volts or kilo-volts (kV)
 - High Voltage moves through transmission lines such as 100-500 kV
 - Household plugs are at 110 volts

Capacity Factor by Energy Source



PCIA Calculation Overview

