AGENDA

December 1, 2022

2:00pm - 3:00pm

RISK OVERSIGHT COMMITTEE

Electric Utility Building
Hydro Conference Room, 2nd Floor
116 S. Grant Street
Roseville, California

THE CITY OF ROSEVILLE WELCOMES YOUR PARTICIPATION

All agenda items are open to public comment, and such public comment shall be addressed to the chair of the meeting.

Public Comment – Speakers have three minutes under Public Comment to speak on issues that are not listed on the agenda and are within the City's jurisdiction. The Brown Act does not permit any action or discussion on items not listed on the agenda.

Agenda Items – Speakers have five minutes to address items that are listed on the agenda.

Americans with Disabilities Act – Notify the City Clerk or Secretary at least 72 hours in advance if assistance is required to participate in a meeting including the need of auxiliary aids or services.

Audio/Visual Presentations – If making a presentation regarding an agenda item, audio/visual materials must be submitted to the City Clerk or Secretary at least 72 hours in advance.

Roseville City Clerk 311 Vernon Street, CA 916-774-5200 TDD 916-774-5220

1. **CALL TO ORDER**

2. **ROLL CALL**

3. **PUBLIC COMMENTS**

4. **MINUTES**
   - **4.1 Approval of January 31, 2022 Minutes**

5. **PRESENTATIONS**
   - **5.1 <u>Roseville Electric Utility Risk Management Update</u>**
     Report by Electric Risk and Compliance Supervisor Petra Wallace summarizing the status of electric utility issues, for information.
   - **5.2 <u>Energy Market Updates</u>**
     Presentation by Power Supply Manager William Forsythe on energy markets, for information.
   - **5.3 <u>Collateral Overview</u>**
     Presentation by Business Analyst Long Zhang on collateral and collateral activities over the past year, for information.
   - **5.4 <u>Qualified Independent Representative Attestation</u>**
     Senior Deputy City Attorney Joe Mandell to provide an overview of the Dodd-Frank Act and the Qualified Independent Representative attestation requirements. This item requires formal action to select a Qualified Independent Representative.

6. **ADJOURNMENT**

MINUTES
January 31, 2022

RISK OVERSIGHT COMMITTEE MEETING
3:30 P.M.
Civic Center
Meeting Rooms 1 and 2
311 Vernon Street
Roseville, California

1. CALL TO ORDER

Electric Risk and Compliance Supervisor Petra Wallace called the meeting to order at 3:30 p.m.

2. ROLL CALL

Risk Oversight Committee Members present: City Councilmember Pauline Roccucci, Public Utilities Commissioner Elaine Webb, City Manager Dominick Casey, City Attorney Michelle Sheidenberger, City Chief Financial Officer Dennis Kauffman, Electric Utility Director Michelle Bertolino.

Risk Oversight Committee Members absent: Assistant City Manager Ryan DeVore, City Councilmember Bruce Houdesheldt, Public Utilities Commissioner Blandon Granger.

City of Roseville Employees present: Senior Deputy City Attorney Joe Mandell, Assistant Utility Director Paul Cummings, Electric Risk and Compliance Supervisor Petra Wallace, Power Supply Manager William Forsythe.

3. PUBLIC COMMENTS

No public comment received.

4. MINUTES

4.1 Approval of May 24, 2021 Minutes

Motion by City Councilmember Roccucci, seconded by City Manager Casey to approve the Minutes of the May 24, 2021 meeting. The Motion passed by a vote of 6-0.

Ayes: Roccucci, Webb, Casey, Sheidenberger, Kauffman, Bertolino
Noes: 0
Absent: DeVore, Houdesheldt, Granger

5. PRESENTATIONS

5.1 Roseville Electric Utility Monthly Report Update

Electric Risk and Compliance Supervisor Petra Wallace provided an overview of the monthly Energy Risk Report and the status of Electric Utility issues, including energy risk compliance and Risk Management Policy compliance, for information.

No public comment received.

5.2 Risk Management Policy Updates

Electric Risk and Compliance Supervisor Petra Wallace provided background information and suggested updates to the Energy Hedge Policy and the Energy Trading Authority Policy, for recommendation.

Motion made by City Attorney Sheidenberger to accept all recommended Risk Management Policy updates. City Councilmember Roccucci seconded the Motion. The Motion passed by a vote of 6-0.

Ayes: Roccucci, Webb, Casey, Sheidenberger, Kauffman, Bertolino
Noes: 0
Absent: DeVore, Houdesheldt, Granger

No public comment received.

5.3 Qualified Independent Representative Attestation

Senior Deputy City Attorney Joe Mandell explained the role of the Qualified Independent Representative (QIR) required by the Dodd-Frank Act that was passed in 2010. The City of Roseville is identified as a Special Entity and is required to identify a QIR. The current QIR is Petra Wallace, Electric Risk and Compliance Supervisor. Each year the QIR needs to be re-certified and approved by the Risk Oversight Committee. Petra Wallace was recommended for re-certification as she meets all QIR requirements as noted in the Energy Risk Management Policies.

City Manager Dominick Casey made a motion to confirm Petra Wallace, Electric Risk and Compliance Supervisor, as the QIR for the Electric Department's Swap Transactions. City Attorney Michelle Sheidenberger seconded the motion. The Motion passed by a vote of 6-0.

Ayes: Roccucci, Webb, Casey, Sheidenberger, Kauffman, Bertolino
Noes: 0
Absent: DeVore, Houdesheldt, Granger

No public comment received.

6. ADJOURNMENT

The Risk Oversight Committee meeting was adjourned at 4:00 p.m.

Motion to adjourn by City Attorney Sheidenberger, seconded by City Councilmember Roccucci. The Motion passed by a vote of 6-0.

Ayes: Roccucci, Webb, Casey, Sheidenberger, Kauffman, Bertolino
Noes: 0
Absent: DeVore, Houdesheldt, Granger

Roseville Electric

October 2022 Portfolio Position Report

October 19, 2022

Market Prices: October 11, 2022

Model Run: October 11, 2022

ACES
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1. Executive Summary

This report provides a current forecast and sensitivity analysis of Roseville Electric's key portfolio components from October 2022 through August 2025. While Roseville Electric's resources and load obligations are relatively stable in the near future, energy markets change frequently. This report is updated monthly to reflect the impact of the latest market conditions on the Roseville Electric portfolio. This report compares the October 2022 model results to the September 2022 model results, where applicable. Items of note from this model run are as follows:

- Roseville Electric is **in compliance** under the Annual Fixed Price Energy Hedge Policy (Section 2.2.1)
- Roseville Electric is **in compliance** with the Monthly Fixed Price Energy Hedge Policy (Section 2.2.1)
- All counterparties are **in compliance** under the Energy Credit Risk Policy (Section 2.3)
- As of October 11, 2022, the average storage level across 14 reservoirs in California was at 31% of capacity, which is less than the historical average of 52% for this time of year
  - Average storage levels at this time last year were at 27% of capacity
  - The Northern Sierra region has had approximately 78% of the normal season-to-date precipitation thus far compared to 44% last year

2. Roseville Electric's Risk Management Policies

2.1. Policy Compliance Status Summary

Figure 1 shows the compliance status of Roseville Electric's risk management policies.

Figure 1.

Policy	Compliance Status	Notes
Fixed Price Energy - Annual	In	
Fixed Price Energy - Monthly and Quarterly	In	
Trading	In	No violations in the last 12 months
Credit	In	

2.2. Energy Hedge Policy Summary

Roseville Electric's energy hedge policy is designed to reduce energy rate volatility and maintain rates within reasonable tolerances. The energy hedge policy identifies specific guidelines and criteria for procuring projected energy needs. These criteria are defined for months and quarters, as appropriate for the various components of the energy hedge policy.

The energy hedge policy defines compliance under various criteria, which are measured from model results outlined in this report, including the following:

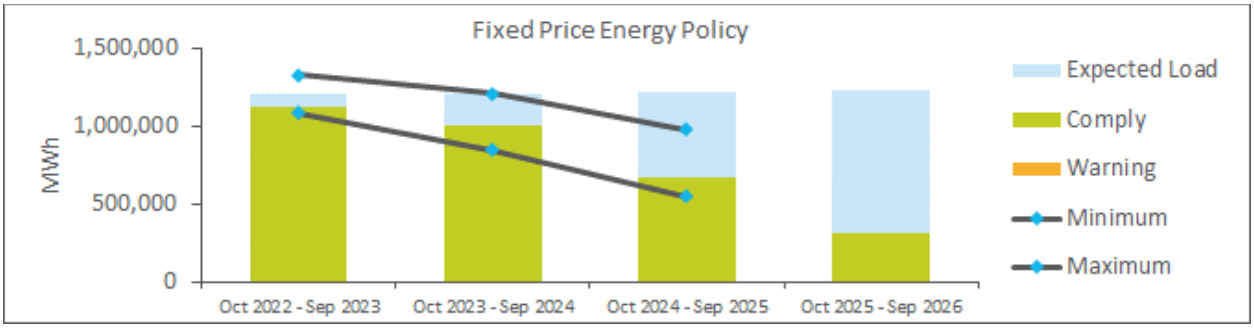
- Fixed-Price Energy
  - Rolling hedges
  - Hedge timing and volumetric minimums

2.2.1. Fixed-Price Energy

The fixed-price energy component of the energy hedge policy defines volumetric ranges for procured fixed-price energy in relation to expected energy needs. Energy needs are considered hedged or procure d to the extent the projected need is met by authorized transactions covered under the Roseville Electric Trading Authority Policy.

Figure 2 shows the fixed-price energy for the next 12 months, quarters 5 through 8 (October 2023 through September 2024), quarters 9 through 12 (October 2024 through September 2025), and quarters 13 through 16 (October 2025 through September 2026). Quarters 13 through 16 do not fall under the policy, but are shown for reference as this policy rolls forward in future months and years. **Roseville Electric is in compliance with this policy.**

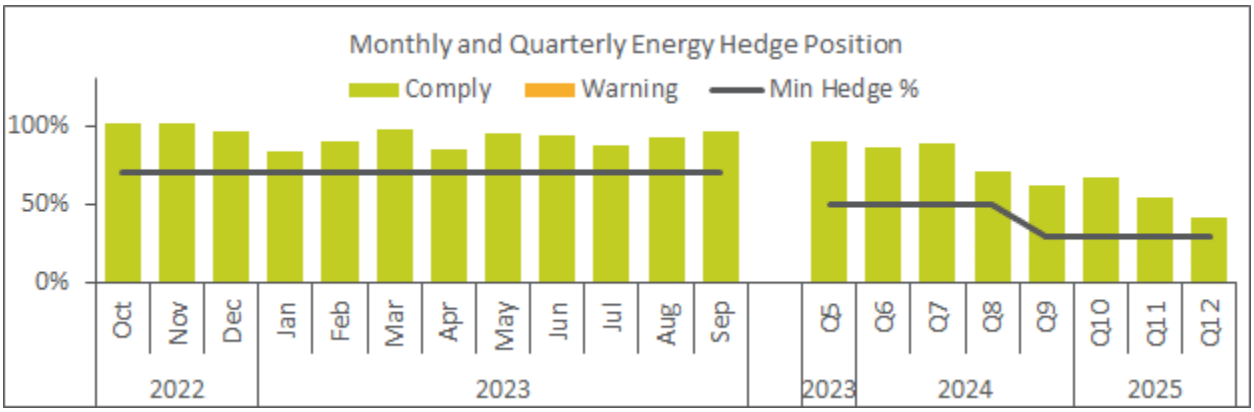
Figure 2.



Period	Expected Load (MWh)	Fixed Price Resources (MWh)	Coverage	Minimum Threshold	Maximum Threshold
Oct 2022 - Sep 2023	1,206,303	1,125,141	93%	90%	110%
Oct 2023 - Sep 2024	1,210,328	1,005,037	83%	70%	100%
Oct 2024 - Sep 2025	1,220,808	672,008	55%	45%	80%

Figure 3 shows the monthly (next 12 months) and quarterly (next 8 quarters beyond the next 12 months) fixed-price energy hedge position for Roseville Electric's portfolio. There are minimum hedge levels for each month (70%) and each quarter (50% for quarters 5 through 8; 30% for quarters 9 through 12). **Roseville Electric is in compliance with the Monthly and Quarterly Energy Hedge Policy.**

Figure 3.



	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023
Min Hedge %	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
Actual Hedge %	101%	101%	96%	84%	90%	98%	85%	95%	94%	88%	92%	96%
Compliance	In	In	In	In	In	In	In	In	In	In	In	In

	Quarter							
	5	6	7	8	9	10	11	12
Start Month	Oct 2023	Jan 2024	Apr 2024	Jul 2024	Oct 2024	Jan 2025	Apr 2025	Jul 2025
End Month	Dec 2023	Mar 2024	Jun 2024	Sep 2024	Dec 2024	Mar 2025	Jun 2025	Sep 2025
Min Hedge %	50%	50%	50%	50%	30%	30%	30%	30%
Actual Hedge %	91%	86%	88%	71%	62%	67%	55%	41%
Compliance	In	In	In	In	In	In	In	In

2.3. Energy Credit Risk Policy

Roseville Electric's energy credit risk policy relates to counterparty credit risk management. It evaluates prospective counterparty risk, then uses that evaluation to develop an open line of credit. This policy defines how credit limits are set and who can set them. It also addresses regular monitoring of counterparty creditworthiness, along with the value of contracts currently active with counterparties, to determine how much credit has been extended to a counterparty. Figure 4 shows Roseville Electric's current credit position with various counterparties. **Roseville Electric is in compliance with the Energy Credit Risk Policy.**

Figure 4.

As of October 11, 2022 - in $ Millions								
Counterparty	Moody Rating	S&P Rating	Contract	Roseville Credit Limit	Mark-to-Market (-) Roseville Owes (+) Counterparty Owes	Counterparty Credit Limit	Counterparty Threshold	Collateral
ConocoPhillips	A3	A-	ISDA w/PA & GA	$50.0	+$0.0	$19.0	$40.0	$0.0
Constellation Energy Generation	Baa2	BBB	ISDA w/PA & GA	$25.0	+$1.8	$10.0	$10.0	$0.0
EDF Trading NA	Baa3	NA	ISDA w/PA & GA	$15.0	+$2.9	$5.0	$5.0	$0.0
J Aron	A2	BBB+	ISDA w/PA & GA	$20.0	+$1.9	$5.0	$5.0	$0.0
Macquarie Energy	A2	A+	ISDA w/PA & GA	$20.0	+$15.2	$20.0	$20.0	$8.2
Portland General Electric	A3	BBB+	WSPP	Unknown	-$0.2	$10.0	$0.0	$0.0
Shell Trading Risk Management	A2	A	ISDA	$25.0	-$0.2	$10.0	$25.0	$0.0

2.4. Energy Trading Authority Policy

The energy trading authority policy addresses the process Roseville Electric uses to transact with counterparties. It defines many aspects of delegation of authority, such as to whom authority is delegated; how much energy or dollar amounts they are authorized to transact at one time or over time; what types of products they can transact; and the processes to obtain authority to transact. This policy ensures transactions are performed in a disciplined manner with appropriate communication across the organization. **As of October 2022, there have been no trading violations in the past 12 months.**

3. Detailed Market and Model Results

3.1. Model Updates

Monthly model updates provide current market and operational perspectives for this risk model. The following assumptions were updated for this month's report:

- Market prices are based on forward curves as of October 11, 2022, and compared to last month's prices as of September 13, 2022
- Long-term volatility for power and natural gas prices increased from 0.0168 to 0.0177 (5.2%)
- Western Base Resource (BR) forecasted energy decreased 1 GWh (17%) for 2022, 4 GWh (4%) for 2023, 3 GWh (2%) for 2024, and no change for 2025
- PG&E transportation costs for Roseville Energy Park (REP) did not change for October through December 2022, increased 104% for January through July 2023, and 67% for the duration of the report
- PG&E transportation costs for Roseville Power Plant 2 (RPP2) did not change for October through December 2022, increased 36% for January through July 2023, and increased 34% for the duration of the report

Figure 5 summarizes the changes on a calendar year basis for market prices, REP generation, hydro generation, and load. REP generation decreased by 7 GWh (3%) for 2022, 33 GWh (5%) for 2023, 79 GWh (12%) for 2024, and 64 GWh (10%) for 2025.

Figure 5.

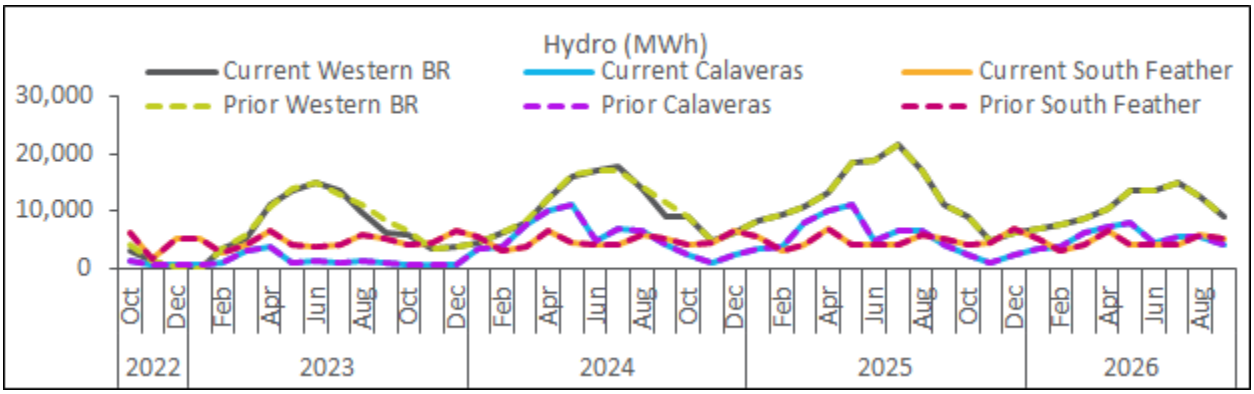
Month-Over-Month Comparisons																
	Current				Prior				Change				% Change			
	2022	2023	2024	2025	2022	2023	2024	2025	2022	2023	2024	2025	2022	2023	2024	2025
NP 15 7x24 ($/MWh)	$81.20	$83.98	$69.23	$64.53	$95.65	$83.74	$67.62	$62.01	($14.45)	$0.24	$1.60	$2.52	(15%)	0%	2%	4%
NP 15 HLH ($/MWh)	$85.00	$89.76	$71.55	$60.75	$101.96	$89.12	$68.55	$57.73	($16.95)	$0.64	$3.00	$3.02	(17%)	1%	4%	5%
NP 15 LLH ($/MWh)	$76.38	$76.67	$66.30	$69.37	$87.67	$76.97	$66.46	$67.49	($11.29)	($0.30)	($0.16)	$1.88	(13%)	(0%)	(0%)	3%
PGE CG ($/MMBtu)	$7.86	$6.65	$5.70	$5.51	$9.35	$7.22	$6.06	$5.89	($1.50)	($0.57)	($0.36)	($0.38)	(16%)	(8%)	(6%)	(6%)
Market Implied Heat Rates	10.33	12.63	12.14	11.70	10.23	11.59	11.15	10.52	0.11	1.03	0.99	1.18	1%	9%	9%	11%
REP Generation (GWh)	200	682	585	547	208	715	664	611	(7)	(33)	(79)	(64)	(3%)	(5%)	(12%)	(10%)
Western BR (GWh)	4	91	124	148	6	95	127	148	(1)	(4)	(3)	0	(17%)	(4%)	(2%)	0%
Calaveras (GWh)	3	16	64	64	3	16	64	64	0	0	0	0	0%	0%	0%	0%
South Feather (GWh)	13	57	57	57	13	57	57	57	0	0	0	0	0%	0%	0%	0%
Load (GWh)	276	1,211	1,211	1,225	276	1,211	1,211	1,225	0	0	0	0	0%	0%	0%	0%

3.2. Hydro

As of October 11, 2022, the average storage level across 14 reservoirs in California was at 31% of capacity compared to the historical average (generally, 1966 to 2015[1]) of 52% and last year's average of 27%.[2]

Figure 6 shows the forward outlook for hydro generation from Roseville Electric's Western BR, Calaveras, and South Feather hydro projects, and includes the prior and current outlooks.

Figure 6.



[1] From an e-mail response from California Data Exchange Center (CDEC), August 29, 2018, answering a question regarding what is included in the historical average.

3.3. Power and Gas Hedging Activity

Market Transaction #121, shown in Figure 7, was within the authorized limits. This transaction includes electricity and natural gas purchases to hedge Roseville's fuel exposure, increase portfolio coverage, and rebalance Roseville's position. This transaction is expected to keep Roseville's portfolio in compliance with the Fixed Price Energy Policy.

Figure 7.

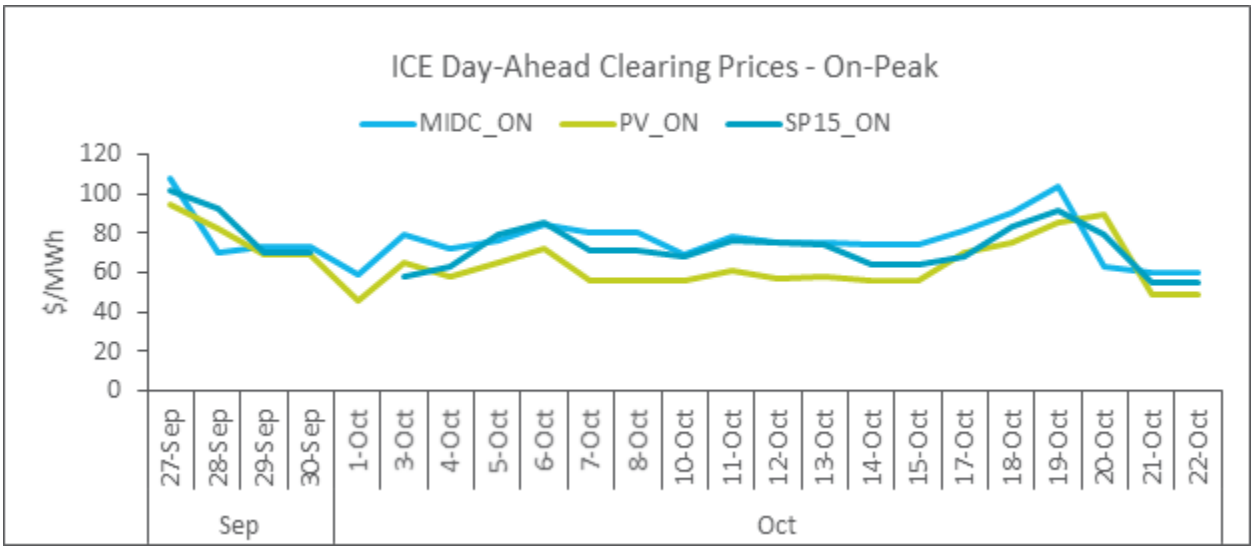
Market Transaction #121 Executed September, 2022											
Item #	Time Period	Buyer	Seller	Product	Location	Quantity	Units	Total Volume	Units	Fixed Price	Cost
1	Apr 2023	Roseville	EDF	Electricity	NP15	25	MMBtu/d	8,000	MWh	$58.25	$466,000
2	Q4 2023	Roseville	EDF	Electricity	NP15	25	MMBtu/d	30,400	MWh	$83.25	$2,530,800
3	Q2 2024	Roseville	EDF	Electricity	NP15	25	MMBtu/d	30,800	MWh	$47.75	$1,470,700
4	Apr 2023	Roseville	Macquarie	Natural Gas	PGE_CG	2,500	MMBtu/d	75,000	MMBtu	$5.86	$439,125
5	May 2023	Roseville	Macquarie	Natural Gas	PGE_CG	2,500	MMBtu/d	77,500	MMBtu	$5.69	$440,588
6	Q3 2025	Roseville	Citi	Natural Gas	PGE_CG	2,500	MMBtu/d	230,000	MMBtu	$5.49	$1,261,550
7	Cal 2025	Roseville	BP	Natural Gas	PGE_CG	2,500	MMBtu/d	912,500	MMBtu	$5.53	$5,046,125
									Total Cost/ (Revenue):		11,654,888
									Total Authorization Limit/(Minimum):		16,400,000

3.4. Power Market Update

Following the heat wave and highest load days of the year, power prices decreased to below triple-digit values at the end of September. PG&E natural gas prices in October have not been as high or as volatile as in September, averaging $7/MMBtu, with a low of $6.25/MMBtu and high of $8.11/MMBtu. Power prices will continue to decrease following cooler temperatures and decreased loads going into the fall season and shoulder months before winter loads increase again.

Figure 8 shows ICE day-ahead (DA) on-peak power prices from September 27 through October 22, 2022.

Figure 8.



REP had a week-long maintenance period from October 14 through October 21 for REP CT2, which caused a maximum capacity of 80 MW on 1x1DF configuration. Unfortunately, this creates a greater load position

for Roseville Electric to fill with bilateral purchases and CAISO exports, as well as with generation from the RPP2 units, when most economical. CAISO locational marginal prices (LMP) have decreased, with SMDA and NP15 hubs clearing between $60/MWh and $80/MWh, and near $100/MWh for super-peak hours (HE18-22). Roseville Electric loads are regularly peaking during HE18 at approximately 150 MW, and purchases were only required during the REP CT2 outage. REP generation was used to cover load after the derate, as COB and CAISO exports were not economical enough to back down REP. The decrease in natural gas continues to make REP more economical to cover Roseville Electric's load around-the-clock rather than purchasing bilaterally at a higher cost than the cost to back down REP. This creates a benefit in the energy imbalance market (EIM) as REP can be dispatched above Roseville Electric's load demand and the excess power is imported economically to the EIM.

shows average power prices from September 27, 2022, through October 23, 2022.

Figure 9 shows average power prices from September 27, 2022, through October 23, 2022.

Figure 9.

Average Power Prices from September 27 through October 23				
	ICE		LMP	
	COB	MIDC	SMDA	NP15
HLH	$ 78.93	$ 76.63	$ 75.88	$ 74.16
LLH	$ 67.01	$ 66.37	$ 69.76	$ 67.17

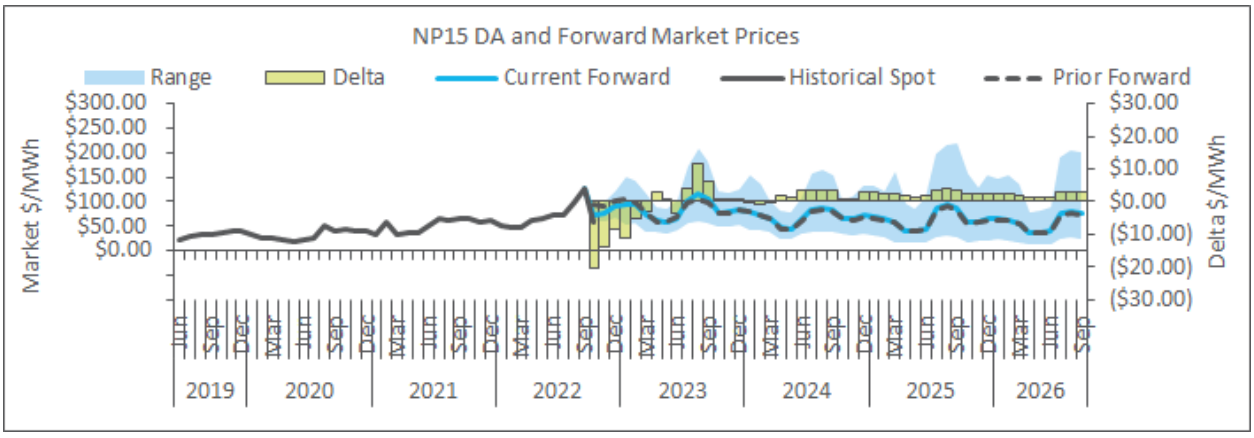
Figure 10 shows DA and real-time (RT) NP15 power prices for the HLH and LLH, as well as spreads between DA and RT prices. Forward prices are from the last business day that encompassed all days for the forward month.

Figure 10.

NP 15 ($/MWh)								
	HLH				LLH			
	Forward	DA	RT	Spread	Forward	DA	RT	Spread
September	$163.16	$130.24	$118.24	$12.00	$109.13	$96.46	$94.06	$2.40
October (MTD as of 10/11)	$75.85	$56.44	$54.59	$1.85	$85.65	$60.30	$63.70	($3.40)
Delta	($87.31)	($73.80)	($63.65)	($10.15)	($23.48)	($36.16)	($30.36)	($5.79)
% Delta	(54%)	(57%)	(54%)		(22%)	(37%)	(32%)	

Figure 11 shows the historical monthly DA 7x24 prices for NP15, as well as the forward curve information.

Figure 11.



As of October 11, 2022, forward power prices decreased by an average of $3.35/MWh (3.58%) through September 2023 compared to prices as of September 13, 2022. Power prices increased by an average of $1.98/MWh (3.25%) from October 2023 through December 2026.

Figure 12 compares NP15 and COB forward curve prices without carbon costs.

Figure 12.

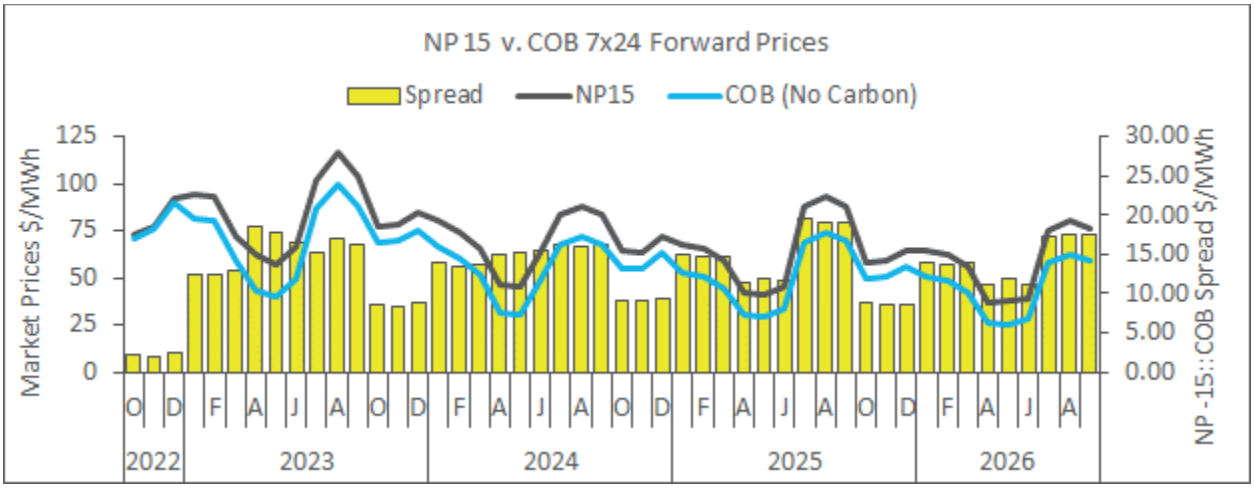
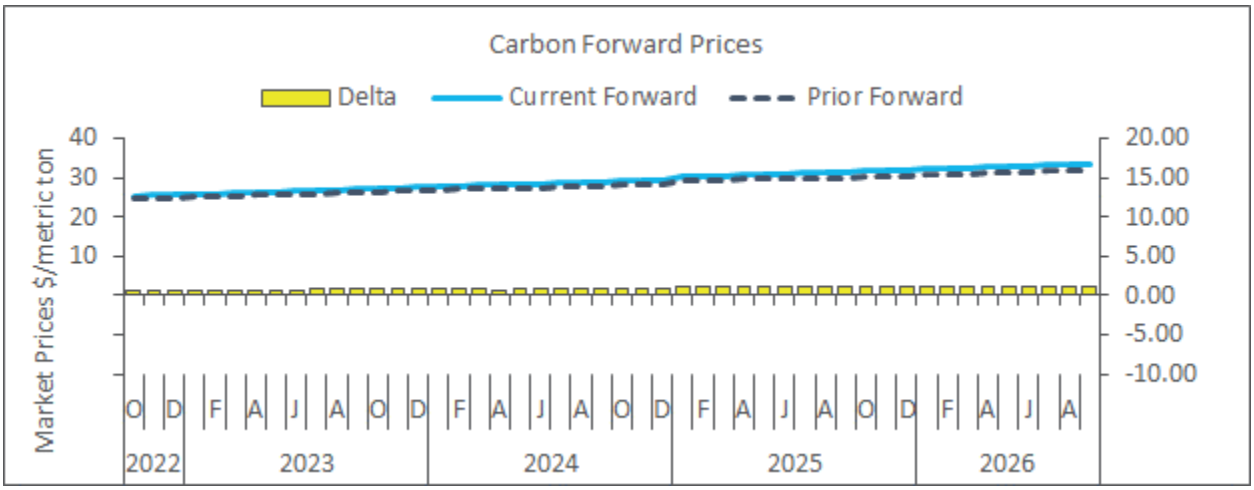


Figure 13 shows the carbon forward prices as of October 11, 2022, compared to carbon prices from the prior report.

Figure 13.



3.5. Natural Gas and Market Heat Rates

Figure 14 shows the average daily natural gas settlements compared to the prompt forward product and the average DA heat rates, using NP 15 and PG&E Citygate, for the respective month.

Figure 14.

	Forward Settlement PG&E Citygate	Spot PG&E Citygate	Spot Less Forward	Average DA Heat Rate (MMBtu/MWh)	
	$/MMBtu	$/MMBtu	$/MMBtu	HLH	LLH
September	$10.005	$9.535	($0.470)	13.7	10.1
October (MTD as of 10/11)	$7.995	$7.645	($0.350)	7.4	7.9
Delta	($2.010)	($1.890)		(6.3)	(2.2)
% Delta	(20%)	(20%)		(46%)	(22%)

Figure 15 on the following page shows the modeled forward PG&E Citygate natural gas prices. Compared to the prior month, PG&E Citygate natural gas prices decreased by an average of $0.94/MMBtu through August 2023 and $0.37/MMBtu for September 2023 through December 2026.

Figure 15.

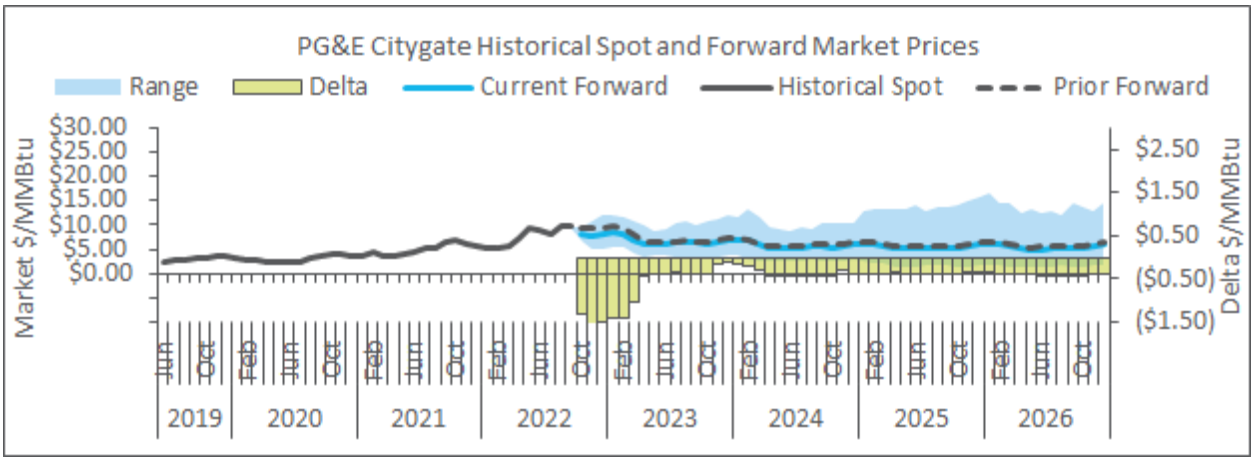
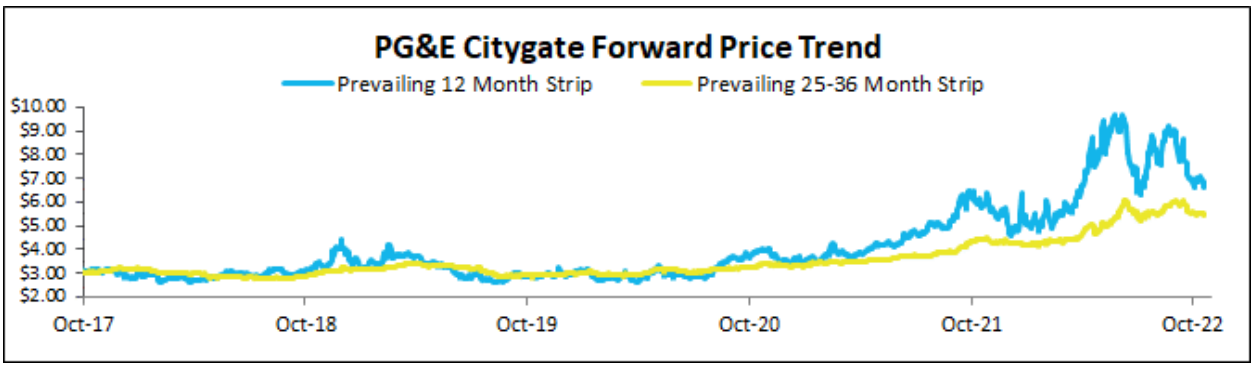


Figure 16 shows the prevailing 12-month and 25- through 36-month PG&E Citygate forward prices for the past five years.

Figure 16.



3.6. Model Results

3.6.1. REP Generation

When all other factors are equal, REP's expected generation is tied to the market through natural gas prices and power prices, which establish a market-implied heat rate (a standard metric to compare generation efficiency to market prices). In general, lower market-implied heat rates decrease REP's generation as market power becomes relatively cheaper than REP's cost to generate; higher market heat rates increase REP generation as market power becomes relatively more expensive than REP's generation cost. Additionally, changes to the hydro forecast and market transactions can affect REP generation. While the change in market-implied heat rates (shown in Figure 17) was responsible for the majority of the change in REP's generation (shown in Figure 18), the change in the hydro forecast also contributed. Maintenance outages in April every year from 2024 forward were added to the model this month.

Figure 17.

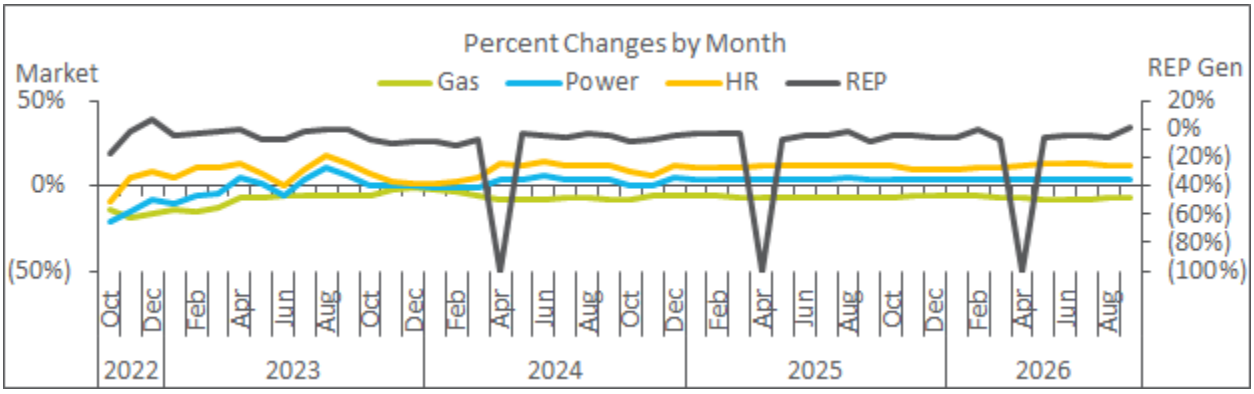
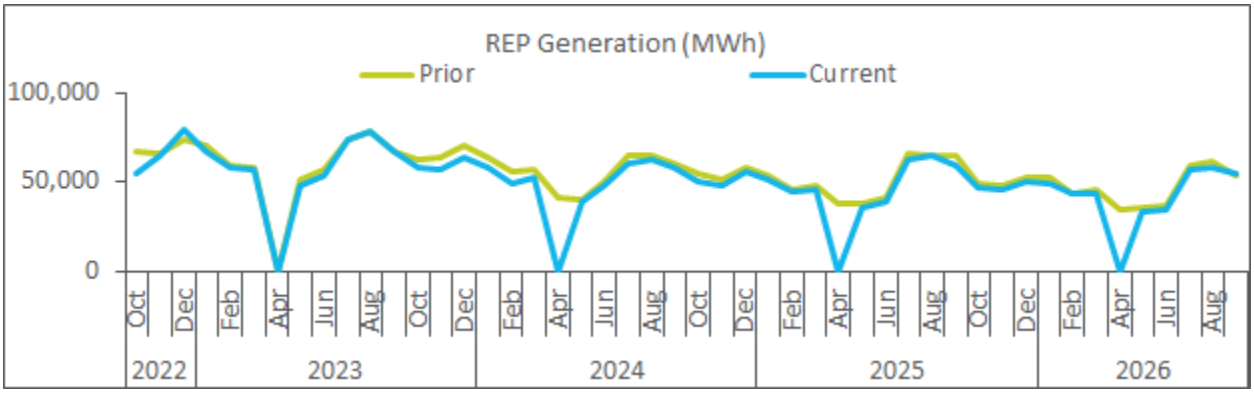


Figure 18.



3.6.2. Portfolio Costs

Roseville Electric's portfolio costs increased $1 million (4.39%) for the balance of 2022, $4.5 million (4.53%) for 2023, and $3.9 million (4.06%) for 2024. For the balance of 2022, power and natural gas prices decreased, which decreased the profitability of sales more than it decreased the cost to serve load and increased portfolio costs. For 2023 and 2024, power prices increased, while natural gas prices decreased,

which increased the cost to serve load more than it increased the profitability of sales and increased portfolio costs.

Expected total costs for the next 12 months are $101.2 million, with a 97th percentile total cost of $111 million and cost exposure of $9.8 million (9.7%). For the same period, the average variable cost (AVC) to serve load is $40.53/MWh, with a 97th percentile AVC of $48.67/MWh ($8.13/MWh natural risk). Note that Roseville Electric is assumed to hold sufficient CO_2 credits; therefore, CO_2 costs were excluded from the cost accounting, but were included in the dispatch and commit decision of carbon producing resources to cover any potential opportunity costs.

Figure 19 shows the annual mean, 3rd percentile, 97th percentile, and exposure for Roseville Electric's total portfolio costs. Exposure is measured as the difference between the 97th percentile and the mean.

Figure 19.

Power Supply Annual Risk				
Period	Mean	3%	97%	Exposure
Oct 2022 - Sep 2023	$101,219,652	$88,502,457	$111,027,873	9.7%
Oct 2023 - Sep 2024	$100,745,638	$86,024,393	$111,656,465	10.8%
Oct 2024 - Sep 2025	$94,504,784	$78,959,296	$112,943,966	19.5%

Figure 20 shows the annual mean, 3rd percentile, and 97th percentile for Roseville Electric's portfolio AVC.

Figure 20.

Power Supply Average Variable Cost			
Period	Mean	3%	97%
Oct 2022 - Sep 2023	$40.53	$29.99	$48.67
Oct 2023 - Sep 2024	$43.66	$31.50	$52.68
Oct 2024 - Sep 2025	$39.56	$26.83	$54.66

3.6.3. Hedged Natural Gas Position

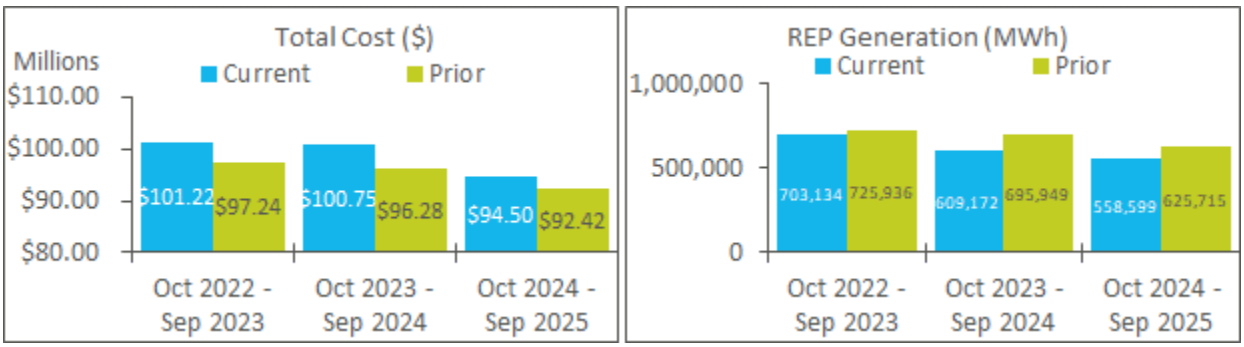
Over the next 12 months, Roseville Electric's exposure to natural gas decreased from 5,683,078 MMBtu to 5,516,609 MMBtu. Roseville Electric has 5,792,500 MMBtu of natural gas hedges for the next 12 months, of which 5,317,015 MMBtu (92% utilization rate) are expected to be utilized by Roseville Electric resources (primarily REP). Any unused natural gas hedges (475,485 MMBtu) are still considered to hedge Roseville Electric's energy exposure and are converted to electricity for hedge policy purposes. This conversion methodology includes NP15 7x24 power prices and PG&E Citygate natural gas prices, as well as CO_2 costs.

3.7. Summary of Model Results

Figure 21 shows the relative change in total costs, as well as expected REP generation for the next 12-month period compared to last month's report. Total portfolio costs increased for October 2022 through

September 2025, compared to the prior month's report. REP generation decreased for October 2022 through September 2023 to September 2025

Figure 21.



4. Capacity Position

The capacity position shows what resources are available to ensure safe and reliable delivery of power to serve Roseville Electric's load in any given month throughout the year. Note that Roseville Electric has no CAISO Resource Adequacy (RA) obligations, except the noted RA sales. Portfolio thermal capacity will fluctuate primarily due to the placement of planned outages and ambient derates. Peak COB contracts include 7x24 or HLH contracts. A reserve margin is calculated as 15% above expected monthly peak load. Available COB transmission is included in the calculation in Figure 22 and Figure 23, equal to Roseville Electric's available contract transmission capacity. Figure 22 and Figure 23 show Roseville Electric's capacity position by resource type and load.

Figure 22.

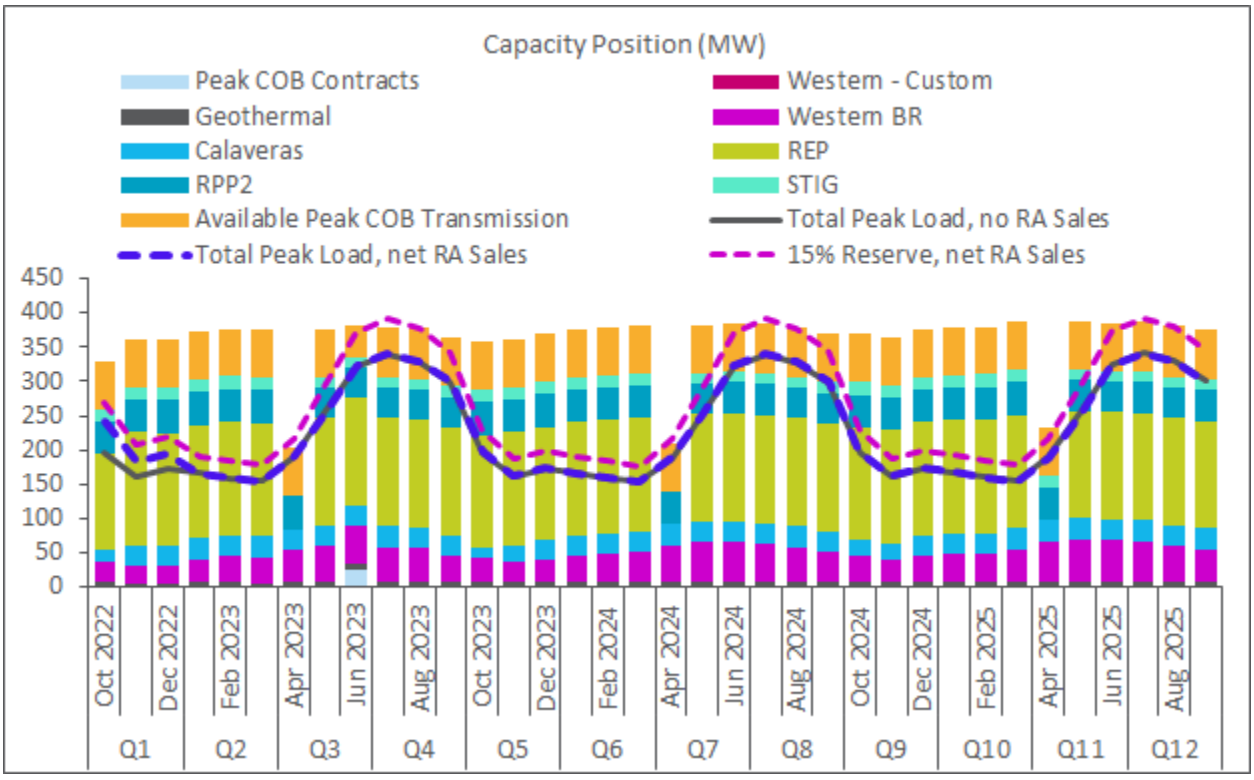

Capacity Position (MW)
Peak COB Contracts
Geothermal
Calaveras
RPP2
Available Peak COB Transmission
Total Peak Load, net RA Sales
Western - Custom
Western BR
REP
STIG
Total Peak Load, no RA Sales
15% Reserve, net RA Sales
450
400
350
300
250
200
150
100
50
0
Oct 2022
Dec 2022
Feb 2023
Apr 2023
Jun 2023
Aug 2023
Oct 2023
Dec 2023
Feb 2024
Apr 2024
Jun 2024
Aug 2024
Oct 2024
Dec 2024
Feb 2025
Apr 2025
Jun 2025
Aug 2025
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q11
Q12

Figure 23.

Year	Resource	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	Peak COB Contracts										0	0	0
	Western - Custom										0	0	0
	Geothermal										7	4	6
	Western BR										30	26	24
	Calaveras										18	30	30
	South Feather										18	18	20
	REP										140	165	165
	RPP2										48	48	48
	STIG										18	18	18
	Available Peak COB Transmission										70	70	70
	RA Sales										(44)	(22)	(22)
	Total Peak Load, no RA Sales										196	161	172
	Total Peak Load, net RA Sales										240	184	195
	15% Reserve, net RA Sales										270	208	221
	Total Roseville Resource Capacity										348	380	381
	Net Capacity to Peak Load										**108**	**196**	**187**
	Net Capacity to Reserve Margin										**79**	**172**	**161**

Year	Resource	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023	Peak COB Contracts	0	0	0	0	0	25	0	0	0	0	0	0
	Western - Custom	0	0	0	0	0	0	0	0	0	0	0	0
	Geothermal	8	8	6	8	8	8	8	8	8	8	8	8
	Western BR	33	38	38	47	51	56	51	49	38	34	29	31
	Calaveras	30	30	30	30	30	30	30	30	30	14	24	30
	South Feather	20	10	14	20	20	20	20	20	20	18	18	20
	REP	165	165	165	0	157	157	157	157	157	165	165	165
	RPP2	48	48	48	48	45	45	45	45	45	48	48	48
	STIG	18	18	18	0	15	15	15	15	15	18	18	18
	Available Peak COB Transmission	70	70	70	70	70	45	74	74	72	70	70	70
	RA Sales	0	0	0	0	0	0	0	0	0	0	0	0
	Total Peak Load, no RA Sales	166	159	154	189	253	323	340	329	299	197	162	174
	Total Peak Load, net RA Sales	166	159	154	189	253	323	340	329	299	197	162	174
	15% Reserve, net RA Sales	191	183	177	217	291	372	391	378	344	227	187	200
	Total Roseville Resource Capacity	392	387	389	223	397	401	400	398	384	375	381	390
	Net Capacity to Peak Load	**226**	**228**	**235**	**34**	**143**	**77**	**60**	**69**	**86**	**178**	**218**	**216**
	Net Capacity to Reserve Margin	**201**	**204**	**212**	**5**	**105**	**29**	**9**	**20**	**41**	**148**	**194**	**190**

Year	Resource	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024	Peak COB Contracts	0	0	0	0	0	0	0	0	0	0	0	0
	Western - Custom	0	0	0	0	0	0	0	0	0	0	0	0
	Geothermal	8	8	8	8	8	8	8	8	8	8	8	8
	Western BR	37	40	43	53	57	59	56	51	43	39	32	37
	Calaveras	30	30	30	30	30	30	30	30	30	21	24	30
	South Feather	20	10	14	20	20	20	20	20	20	18	18	20
	REP	165	165	165	0	157	157	157	157	157	165	165	165
	RPP2	48	48	48	48	45	45	45	45	45	48	48	48
	STIG	18	18	18	0	15	15	15	15	15	18	18	18
	Available Peak COB Transmission	70	70	70	70	70	70	74	74	72	70	70	70
	RA Sales	0	0	0	0	0	0	0	0	0	0	0	0
	Total Peak Load, no RA Sales	166	159	154	189	253	323	340	329	299	197	163	174
	Total Peak Load, net RA Sales	166	159	154	189	253	323	340	329	299	197	163	174
	15% Reserve, net RA Sales	191	183	177	217	291	372	391	378	344	227	187	200
	Total Roseville Resource Capacity	396	389	396	229	403	404	405	400	390	387	383	396
	Net Capacity to Peak Load	**230**	**230**	**242**	**41**	**149**	**81**	**65**	**71**	**91**	**189**	**221**	**222**
	Net Capacity to Reserve Margin	**205**	**206**	**219**	**12**	**112**	**32**	**14**	**22**	**46**	**160**	**196**	**196**

Year	Resource	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2025	Peak COB Contracts	0	0	0	0	0	0	0	0	0	0	0	0
	Western - Custom	0	0	0	0	0	0	0	0	0	0	0	0
	Geothermal	8	8	8	8	8	8	8	8	8	8	8	8
	Western BR	40	41	48	59	62	60	59	52	48	38	31	36
	Calaveras	30	30	30	30	30	30	30	30	30	30	30	30
	South Feather	20	10	14	20	20	20	20	20	20	18	18	20
	REP	165	165	165	0	157	157	157	157	157	165	165	165
	RPP2	48	48	48	48	45	45	45	45	45	48	48	48
	STIG	18	18	18	18	15	15	15	15	15	18	18	18
	Available Peak COB Transmission	70	70	70	70	70	70	74	74	72	70	70	70
	RA Sales	0	0	0	0	0	0	0	0	0	0	0	0
	Total Peak Load, no RA Sales	167	160	155	190	254	324	341	330	300	198	164	175
	Total Peak Load, net RA Sales	167	160	155	190	254	324	341	330	300	198	164	175
	15% Reserve, net RA Sales	192	184	178	218	292	373	392	380	345	228	188	201
	Total Roseville Resource Capacity	399	390	401	253	407	406	408	401	395	395	389	395
	Net Capacity to Peak Load	**232**	**230**	**246**	**63**	**153**	**81**	**67**	**71**	**94**	**197**	**225**	**221**
	Net Capacity to Reserve Margin	**207**	**206**	**223**	**35**	**115**	**32**	**16**	**21**	**49**	**167**	**201**	**194**

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