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- Type questions and comments in the chat box;
 - Please use the “all panelists” option when using chat to ensure your message will be seen.
- To speak, click on the hand in the lower right corner.



- On the phone:

- ***3** is the command to raise and lower your hand;
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This PowerPoint is available on the commission’s homepage at puc.idaho.gov.

This workshop is being recorded



PUBLIC WORKSHOP



Rocky Mountain Power Study of the Costs and Benefits of On-Site Customer Generation Case No. PAC-E-23-17

IDAHO PUBLIC UTILITIES COMMISSION
April 30, 2024



Introduction

Matt Suess

Engineer

Jason Talford

Technical Specialist

Jolene Bossard

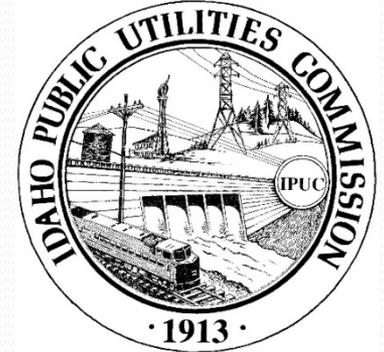
Utility Compliance Investigator

Purpose of a Public Workshop

- Informational session to learn about the case
- Present an overview of the Rocky Mountain Power application.
- Ask questions to Staff.
- Learn how to submit official comments to become part of the case record.

(Note: This Public Workshop is not part of the official case record.)

What is the Idaho Public Utilities Commission?



- Established in 1913. Idaho Code Sections 61 and 62.
- **The Commission regulates Idaho's investor-owned utilities, ensuring *adequate service and reasonable rates*.**
- The Commission is made up of three commissioners appointed by the Governor. The Commissioners make the decisions in each case.
- Commission Staff is made up of Auditors, Consumer Compliance Investigators, Engineers, Technical Analysts, and Admin.
- Commission Staff is one of the Parties in the case and will provide official Comments to the Commissioners.

What is the Commission's role?

State law requires that the Commission:

- Consider the evidence that is on the record, which includes:
 1. The Company's Application; and
 2. Comments from Staff & Parties; and
 3. Customers' written comments (or oral testimony at Customer Hearings).
- Meet the statutory public interest standard that ensures customers have:
 1. Adequate, safe, and reliable service; and
 2. Just and reasonable rates.

Important points to consider:

- It is not in the public interest to have a utility that cannot adequately serve all the customers in its assigned territory now and in the future.
- All Commission decisions must withstand Idaho Supreme Court appeals from either utility or customer groups.

How are regulated utilities different from other businesses?

- **Regulated utilities are not like any other business.** They are assigned service territories and must serve every customer in that territory.
- What they charge customers is determined by state regulators.
- In exchange for the utility's guarantee to provide **adequate, safe, and reliable service**, the state must provide the utility the opportunity to:
 1. Recover **prudently incurred** expenses necessary to serve customers; and
 2. Earn a **reasonable rate of return** on its investment.



Rocky Mountain Power Application



Schedule



Event	Date	Location
Case Filed	June 29, 2023	
Public Workshop	Today (April 30, 2024)	Virtual
Staff & Intervenor Comments	June 13, 2024	
Public Comments	File Now (deadline June 13, 2024)	
Public Customer Hearing	Monday, June 17, 2024	Idaho Falls Activity Center, South Room, 1575 N Skyline Drive, Idaho Falls, ID 83402
Company Reply Deadline	July 3, 2024	
Close of Case	Final Order	

Application

- Filed June 29, 2023
- Submitted a Study of the Costs and Benefits of On-Site Customer Generation (“On-Site Generation Study” or “Study”).
- Requested that the Commission acknowledge that the Study satisfies Order 34753.
- On February 8, 2024, the Company submitted a Supplemental Report which replaced the original Study in its entirety.

This Workshop will review the contents of the updated On-Site Generation Study.

Disclaimer

- The Company is not proposing any changes to the existing net energy metering structure.
- This filing is to submit a study that may be used to inform a future filing.



Case Background

Background...

PAC-E-19-08 – Request to Close Schedule 135 and Open Schedule 136 (Net Billing)

- Order 34752 Established ‘grandfathering’
- Order 34753 Study On-Site Generation

“It is hereby ordered that Rocky Mountain Power conduct a study of on-site generation, the scope of which is identified by Attachment A hereto.”

PAC-E-23-17 – PAC’s On-Site Generation Study

Background...

- Grandfathered systems:
 - Interconnected under Schedule 135



Netting Interval

An overview of the impact of different netting intervals.

Section 3.0 – Netting Interval

- Monthly (the current “net metering” policy)
- Hourly
- Instantaneous
- Impacts of intervals are considered on
 - Revenue Requirement
 - Class Export Payments
 - Bill Impacts
 - Administrative Costs



Export Credit Rate

“ECR”

An overview of the components that may contribute value to the ECR.

Proposed Components

In accordance with the Commission Order, the Study examined the following ECR components:

- Sections 4.1 & 4.2 – Using Proxy Data
- Section 4.3 – Avoided Energy Value
- Section 4.4 – Avoided Capacity Value
- Section 4.5 – Avoided Risk
- Section 6.0 – Avoided Transmission and Distribution (“T&D”)
- Section 7.0 – Avoided Line Losses
- Section 8.0 – Integration Costs
- Section 9.0 – Avoided Environmental Costs

Sections 4.1 & 4.2 – Proxy Data

- AMI meters were still being installed for Idaho customers in 2023.
- At the time the Study was prepared, insufficient AMI data was available from Idaho on-site generation customers.
- Therefore, the Company used AMI data from residential on-site generation customers in Northern Utah as a proxy to estimate a hypothetical ECR value.
- Sections 4.1 and 4.2 of the Study discuss this data and show why it is a reasonable proxy.

Section 4.3 Avoided Energy Value

Definition:

This is the value for the cost of energy the Company does not have to generate using its own resources as a result of receiving exported energy from an on-site generation customer.

Two methods to determine the value:

Option 1 – *Forecasted* IRP wholesale energy prices.

- *Forward-looking* forecast of prices.
- Prices are for firm energy. Customers' non-firm energy would need to be price adjusted downward ~15%.
- The energy value could be established reasonably far into the future, but it may be less accurate over time.

Option 2 – *Historical* Energy Imbalance Market (“EIM”) prices.

- *Backward-looking* historical prices.
- EIM pricing is for non-firm energy, so no price adjustment is needed.
- Future energy values would be unknown.
- The energy value would lag actual market value, but it would track it over time and would be more accurate than option 1.

Section 4.3 Avoided Energy Value

Seasonal Valuation:

The Company also explored different options on how to allocate the energy value.

Option 1 – Evenly spread the value across all exports for the year.

Option 2 – Allocate the value by summer and non-summer seasons¹.

Section 4.3 Avoided Energy Value

¢/kWh Year	IRP Energy Value (Forecast)	EIM Energy Value (Actual)
2021	4.08	2.83
2022	3.38	4.35
2023	3.25	
2024	1.99	
2025	2.03	
2026	2.01	
2027	2.12	
2028	2.34	
2029	2.84	

← The energy values (¢/kWh) in 2022 for each of the two options.

The value is evenly allocated to all exports in the year. Seasonal values are not displayed.

Section 4.4 Avoided Capacity Value

Definition:

This is the value for the cost of the generation plant the Company does not have to build due to the extra capacity that is contributed to the Company's system from an on-site generation customer's exports.

- Avoided capacity only has value during peak-demand periods and when the Company has a system-wide capacity deficit.
- At the time of this Study, the Company's system does not have a forecasted capacity deficit until 2026.
- Therefore, avoided capacity value could potentially be “zeroed” until 2026.

Section 4.4 Avoided Capacity Value

Basis of Valuation:

The Company explored two ways to determine the avoided capacity value.

- Option 1 – Use a Loss of Load Probability Study and the Capacity Factor approximation methodology (“CF method”).
- Option 2 – Use the top 10% of Idaho load peaks for 2021-2022.

Section 4.4 Avoided Capacity Value

Time-of-Use / Seasonal Valuation:

The Company explored four options for allocating the avoided capacity value to exports.

- Option 1 – Evenly spread the value across all exports.
- Option 2 – Allocate the value by Time-of-Use (On-Peak and Off-Peak).
- Option 3 – Allocate the value by Season (Summer and Non-Summer).
- Option 4 – Allocate value by Time-of-Use and Season.

Section 4.4 Avoided Capacity Value

Comparison of Flat / Seasonal / Time-Of-Use values:

Table 4.6: Capacity Value by Time of Use Period

c/kWh Year	1. Annual	2. Time of Use		3. Seasonal		4. Seasonal & Time of Use			
	Annual All Hours	Annual On- Peak	Annual Off- Peak	Summer All Hours	Winter All Hours	Summer On-Peak	Summer Off-Peak	Winter On- Peak	Winter Off- Peak
2021	0.21	1.32	0.06	0.47	0.03	1.57	0.12	0.07	0.02
2022	0.22	1.35	0.06	0.48	0.03	1.60	0.12	0.07	0.02
2023	0.22	1.38	0.06	0.49	0.03	1.63	0.12	0.07	0.03
2024	0.23	1.41	0.06	0.50	0.03	1.67	0.12	0.07	0.03
2025	0.20	1.21	0.06	0.44	0.02	1.44	0.12	0.06	0.02
2026	0.83	4.87	0.26	1.83	0.09	5.78	0.56	0.26	0.09
2027	0.68	3.83	0.24	1.51	0.07	4.54	0.54	0.21	0.06
2028	0.53	2.75	0.21	1.18	0.05	3.26	0.51	0.17	0.04
2029	0.53	2.34	0.27	1.11	0.10	2.73	0.59	0.33	0.09

Note: Pre-2026 Values would be zeroed if there is still no system-wide capacity deficit.

Section 4.5 Avoided Risk

Definition:

This is the value from the reduction in price uncertainty by receiving exports from an on-site generation customer instead of receiving generation from the Company's other resources, which are affected by volatility in natural gas prices, market electricity prices, hydro conditions, etc.).

- The value from the Study was **0.124¢/kWh**.
- Avoided Risk applies only if forecasted (IRP-based) energy prices are used. It does not apply when actual market prices (EIM) are used.

Section 6.0 Avoided T&D Costs

Definition:

This is the value that results from delaying the construction of T&D capacity due to customer-exported energy being produced closer to where consumption occurs.

- The Company used the Avoided T&D costs determined in the 2021 IRP.
- The value from the Study was **0.11¢/kWh**.

Section 7.0 Avoided Line Loss Value

Definition:

This is the value that results from a reduction in the amount of electricity that is lost from transmitting electricity over long distances (since exported customer generation is produced closer to where consumption occurs).

Table 7.1: Idaho 2018 Demand and Energy Loss Summary

Voltage Class	Demand Loss Factor	Energy Loss Factor
Transmission	3.816%	3.503%
Primary	8.121%	7.082%
Secondary	9.834%	9.061%

For this Study, the Company used the values from its most recent line loss study, completed in 2018

Section 8.0 Integration Costs

Definition:

This is the cost the Company incurs by holding capacity in reserve to balance the variability of on-site generation exports, which cannot then be used to generate electricity to sell into the market or to meet customer demand.

Two sources proposed:

Option 1 – Integration costs are estimated in each IRP.

Option 2 – The Commission periodically reviews integration costs for Qualified Facility pricing.

For the Study, the Company used the solar integration costs determined in the 2021 IRP. The value varies by year.

Section 9.0 Other Avoided Costs

The Study examined miscellaneous other areas whereby customer exports might provide value. These included:

- Grid stability benefits
- Public health and safety
- Economic benefits
- Renewable Energy Credits (“RECs”)

The Study concluded that none of these can *currently* provide realizable value that can be added to the ECR.

ECR Results

Table 4.1: Summary of Export Credit Costs

¢/kWh	IRP Energy Value	EIM Energy Value	Risk Value	LOLP Gen Capacity	LOLP Trans Capacity	LOLP Dist Capacity	Line Losses	Integr-ation Cost	Total Export Credit
Year	(Forecast)	(Actual)							
2021	4.08	2.83	0.00	0.00	0.06	0.16	0.30	-0.02	4.57
2022	3.38	4.35	0.71	0.00	0.06	0.16	0.30	-0.02	4.58
2023	3.25		0.51	0.00	0.06	0.16	0.28	-0.61	3.66
2024	1.99		0.08	0.00	0.06	0.17	0.16	-0.19	2.27
2025	2.03		0.03	0.00	0.05	0.15	0.16	-0.12	2.30
2026	2.01		0.02	0.66	0.05	0.12	0.21	-0.09	2.97
2027	2.12		0.02	0.54	0.04	0.10	0.20	-0.24	2.79
2028	2.34		0.03	0.42	0.03	0.08	0.21	-0.23	2.87
2029	2.84		0.02	0.42	0.03	0.08	0.24	-0.04	3.59



Project Eligibility Cap

Should the current limit on the size of a generation project be adjusted?

Section 5.0 Project Eligibility Cap

- The Study evaluated determining a customer’s project eligibility cap according to their demand.
- considered the pros and cons of maintaining a generic cap.

Table 5.1: Pros and Cons of a Generic Cap (25 kW for Residential and 100 kW for Non-Residential)

Residential 25 kW Cap	Pros	Cons
	Administratively Simple	Too Large for Smaller Users which Might Cause Them to Invest in too Large of a System
	Easy to Understand	Too Small for Very Large Users which Could Limit the Ability to Meet Energy Needs
	Does Not Encourage Bigger Peak Demand	
	Level is Sufficient for Most Customers	
Non-Residential 100 kW Cap	Pros	Cons
	Administratively Simple	Too Large for Smaller Users which Might Cause Them to Invest in too Large of a System
	Easy to Understand	Too Small for Very Large Users which Could Limit the Ability to Meet Energy Needs
	Does Not Encourage Bigger Peak Demand	Greater than 100 kW Systems Must Become a Qualifying Facility which Has a More Challenging Interconnection Process
	Greater than 100 kW Systems Must Become a Qualifying Facility which Has More Accurate Pricing	



Other Considerations

- ECR update frequency
- Accounting treatment
- Disposition of existing kWh credits
- Conversion of kWh credits to \$ credits
- Treatment of excess credits

Update Frequency

- Compares the impact of updates on an Annual, Biennial, and 4-year cycle
- Presents option that some components do not need to be updated as frequently as others.
- Considers how the different frequency of updates reflects Idaho's historical energy prices between 2014-2022
 - More frequent updates can be burdensome but is more accurate
 - Less frequent updates are more stable but do not capture price fluctuations

Accounting Treatment

- Accounting treatment of financial credits paid.
 - Tracked in the Energy Cost Adjustment Mechanism (“ECAM”).
 - Recorded as a purchased power expense.
 - Treatment is like other energy purchases.
 - Expense is passed to all customers on the Company’s system

Existing kWh Credits

- Disposition of existing kWh credits.
 - As of December 31, 2022, an excess of 3,309,167 kWh.
 - Evaluation is approximately \$325,386.06.
 - Totals include grandfathered and new customers.
- Conversion of kWh credits to financial credits.
 - Used Average Energy Rate for each customer class.

Excess Financial Credits

- Treatment of excess financial credits.
 - payable at account closing.
 - transferrable to other accounts.
 - applicable to ALL charges.
- Transfer of financial credits to customer's other metered sites charge a \$10 administrative fee.



Consumer Assistance

Jolene Bossard

Utilities Compliance Investigator

Consumer Assistance

- Utility Compliance Investigators assist customers to resolve issues and/or disputes with the Company.
- Investigators monitor compliance with laws, commission rules, and the Company's tariff.
- Investigators review issues from previous cases, review previous complaints, review submitted comments from customers, and investigate consumer issues raised in the case.

CUSTOMER COMMENTS

Customer written comments are due June 13, 2024.
(Reference Case Number **PAC-E-23-17**)

- Internet Website Address – puc.idaho.gov
- Online - Case Comment Form (once comments are submitted, they become part of public record)
- Email – Address: secretary@puc.idaho.gov
- Mail – IPUC, PO Box 83720, Boise, ID 83720-0074
- Public Customer Hearing – Monday, June 17, 2024

COMMENTS ONLY
(QUESTIONS WILL NOT BE ADDRESSED)

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- QST-G-23-01 Virtual Public Workshop
- IPUC 2023 Annual Report
- Idaho Power Company On-Site Generation Compensation Case Virtual Public Workshop Presentation
- In Re COVID-19 Response - Order No. 35375
- Current Openings - Careers



Comments Form Page



Case Comment or Question Form

Use this form to **file a comment or ask a question about a utility case** pending before the Commission. If you know the case number, please include it.

Submit electronically below or send in to:

Idaho Public Utilities Commission
P O Box 83720
Boise, Idaho 83720-0074
FAX: (208) 334-3762

Use the **Consumer Complaint / Inquiry Form** if you need help resolving a problem with a utility or have a question about your bill, disconnection of service, service reliability and outages, cost of a line extension, customer service, or other issues that are not related to a utility case.

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Use this form to file a comment or ask a question about a case	
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First Name:	<input type="text"/>
Last Name:	<input type="text"/>
Address:	<input type="text"/>
City:	<input type="text"/>
State:	<input type="text" value="ID"/>
Zip:	<input type="text"/>
Daytime Phone:	<input type="text"/>
Email:	<input type="text"/>
Utility Company:	<input type="text"/>
I acknowledge that submitting a comment in an open case constitutes a public record under Idaho Code § 74-101 (13) and all information provided by me on this form is available for public and media inspection. My comment may be reviewed by the utility.	
Ask a question or state your comment.	
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PAC-E-23-05	PACIFICORP DBA ROCKY MOUNTAIN POWER	PACIFICORP – FORMAL COMPLAINT OF SAMUEL AND PEGGY EDWARDS
PAC-E-23-12	PACIFICORP DBA ROCKY MOUNTAIN POWER	PACIFICORP – FORMAL COMPLAINT OF SHERRY COLE
 PAC-E-23-17	PACIFICORP DBA ROCKY MOUNTAIN POWER	PACIFICORP – APPLICATION TO COMPLETE THE STUDY REVIEW PHASE OF THE STUDY OF THE COSTS AND BENEFITS IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER FOR AUTHORITY TO REVISE ELECTRIC SERVICE REGULATION NO. 3 - ELECTRIC SERVICE AGREEMENTS
PAC-E-23-22	PACIFICORP DBA ROCKY MOUNTAIN POWER	IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER FOR AUTHORITY TO REVISE ELECTRIC SERVICE REGULATION NO. 3 - ELECTRIC SERVICE AGREEMENTS
PAC-E-23-24	PACIFICORP DBA ROCKY MOUNTAIN POWER	PACIFICORP – APPLICATION FOR AUTHORIZATION TO UPDATE THE WIND AND SOLAR INTEGRATION RATE FOR SMALL POWER GENERATION QUALIFYING FACILITIES
PAC-E-24-01	PACIFICORP DBA ROCKY MOUNTAIN POWER	PACIFICORP – APPLICATION FOR APPROVAL OF A CAPACITY DEFICIENCY PERIOD TO BE USED FOR AVOIDED COST CALCULATIONS
PAC-E-24-02	PACIFICORP DBA ROCKY MOUNTAIN POWER	PACIFICORP – APPLICATION REQUESTING APPROVAL FOR ADJUSTMENTS TO THE IRRIGATION LOAD CONTROL PROGRAM
PAC-E-24-03	PACIFICORP DBA ROCKY MOUNTAIN POWER	PACIFICORP - APPLICATION FOR AUTHORITY TO ISSUE AND SELL OR EXCHANGE NOT MORE THAN \$5,000,000,000 OF DEBT, AND ENTER INTO CREDIT SUPPORT ARRANGEMENTS

Case Summary Page

Case Summary

Last Updated	Case Number	Date Filed	Case Type	Status	Description
06/29/2023	PAC-E-23-17	06/29/2023	Application	Notice Received	PACIFICORP -- APPLICATION TO COMPLETE THE STUDY REVIEW PHASE OF THE STUDY OF THE COSTS AND BENEFITS

Case Files

- 06/29/2023 APPLICATION.PDF
- 06/29/2023 ATTACHMENT NO 1 - ON-SITE GENERATION STUDY.PDF
- 06/29/2023 ATTACHMENT NO 2 - PRESS RELEASE AND BILL INSERT.PDF

Public Comments

- 04/17/2023 COMMENT_1.PDF
- 05/02/2023 COMMENTS (1)_1.PDF
- 05/10/2023 COMMENTS (2)_2.PDF
- 05/11/2023 COMMENTS (13)_13.PDF
- 05/15/2023 COMMENTS_31.PDF
- 05/16/2023 COMMENTS_4.PDF
- 05/17/2023 COMMENTS_4.PDF
- 05/18/2023 COMMENTS_7.PDF
- 05/19/2023 COMMENTS_7.PDF
- 05/22/2023 COMMENTS_14.PDF

Where do we go from here?

- Customers can subscribe to the Commission's RSS feed to receive updates about all cases via email.
- Continue submitting your comments.
- Public Customer Hearing, Monday, June 17, 2024.

Idaho Falls Activity Center South Room
575 N. Skyline Drive
Idaho Falls, ID 83402

- The Commission will issue a final order which will close the case.



You can find case information and file comments on the PUC website:

puc.idaho.gov

Case Number PAC-E-23-17

Direct: (208) 334-0300

Toll-Free: (800) 432-0369

Fax: (208) 334-3762



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