BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING

IN THE	E MATTER	OF	THE)	
APPLICA	TION OF ROCKY	MOU.	NTAIN)	
POWER I	FOR A MODIF	ICATIO	ON OF)	DOCKET NO. 20000-545-ET-18
AVOIDED	COST METHOD	OLOG	Y AND)	Record No. 15133
REDUCED	CONTRACT	TERN	M OF)	Record No. 15155
PURPA	POWER	PUR (CHASE)	
AGREEMI	ENTS)	

DIRECT TESTIMONY

OF

KENNETH G. LAY

On Behalf Of

Northern Laramie Range Alliance (NLRA)

April 18, 2019

NLRA EXHIBIT 800

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. Kenneth G. Lay. My address is 1351 Boxelder Rd., Converse County, Wyoming.

5 Q. WHAT IS YOUR PROFESSIONAL BACKGROUND AND EXPERIENCE?

A. I have a law degree from George Washington University in Washington D.C. and maintain active membership in the State Bar of California. Earlier in my career I spent six years as an enforcement lawyer with the U.S. Securities and Exchange Commission. I also have a background in finance: I hold the Chartered Financial Analyst (CFA) designation from the CFA Institute, and I worked for many years in finance and investments for The World Bank in Washington, D.C., including as its treasurer. More recently, I have served in a senior management capacity with the Rock Creek Group, a private asset management firm, and I am engaged in my individual capacity with international public- and private-sector institutions developing tools to increase the scale and reduce the cost of financing for sustainable infrastructure and environmental conservation, particularly in emerging market countries.

Q. IN WHAT CAPACITY ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I'm testifying as a member of the Steering Committee of the Northern Laramie Range
Alliance ("NLRA" or "the Alliance"), a citizen group, most of the members of which are
residents of the Rocky Mountain Power ("the Company," "RMP" or "PacifiCorp") service
area in Wyoming.

1 Q. WHAT IS THE NORTHERN LARAMIE RANGE ALLIANCE AND WHO ARE 1TS MEMBERS?

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NLRA is a group of citizens concerned to avoid large-scale industrial development in the 4 A. 5 Northern Laramie Range in central Wyoming. NLRA also has placed a priority on supporting policies in government at the federal, state and local level, and among public 6 utilities such as the Company, that will ensure reliable generation, transmission and 7 distribution of electricity at the lowest practicable cost, both financially and in landscape 8 and habitat intensity. More than 900 have petitioned in opposition to industrial-scale wind 9 energy development and related infrastructure in Wyoming's Northern Laramie Range on 10 the basis of its relative cost to ratepayers and landscape and habitat intensity. Over the past 11 several years, as NLRA and its members have become more educated and aware of the 12 issues surrounding wind energy development – in particular, the distortions caused by 13 14 federal laws mandating public-utility purchases of energy from certain third-party developers - NLRA has become concerned with its impact on the capacity of public 15 utilities such as RMP to deliver reliable electric service while meeting these cost and 16 environmental standards. 17

19 Q. HOW LONG HAVE YOU BEEN A MEMBER OF THE NLRA STEERING COMMITTEE?

22 A. I have been a member of the Steering Committee since its creation early in 2009.

Q. WHAT ARE YOUR RESPONSIBILITIES AS A STEERING COMMITTEE MEMBER?

A. My responsibilities are to work with the other members of the Steering Committee to establish priorities for the Alliance, communicate with the membership and arrange for NLRA's priorities to be implemented as effectively as possible.

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5 Q. WHAT RATEPAYER PROCEEDINGS HAS NLRA BEEN INVOLVED IN?

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A.

We have been involved in proceedings before regulatory agencies at the federal and state level, and in federal and state courts, including FERC and this Commission. NLRA has participated in the Company's two most recent general rate cases, an ECAM case, and cases related to the Company's Schedules 37 and 38. In addition, NLRA regularly participates in public policy issues in Wyoming.

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13 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

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15 A. The purpose of my testimony is to provide information regarding NLRA's concerns with respect to the potential impact of this proceeding on its members as electric ratepayers.

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18 Q. WHAT IS NLRA'S UNDERSTANDING OF THE COMPANY'S PROPOSAL IN THIS DOCKET?

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21 A. On November 2, 2018, RMP filed its application with the Commission requesting authority
22 to reduce the contract term in prospective power purchase agreements ("PPA") offered to
23 qualifying facilities ("QF") under the Public Utility Regulatory Policies Act of 1978
24 ("PURPA"). RMP also requests an order approving modification to the Company's
25 avoided cost methodology used for tariff Schedule 37 "Avoided Cost Purchases from
26 Qualifying Facilities" and tariff Schedule 38 "Avoided Cost Purchases from Non-Standard

1		Qualifying Facilities" and approving certain clarifications to the process by which the
2		Company and potential QFs negotiate and finalize PPAs governed by Schedules 37 and/or
3		38.
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5	Q.	PLEASE DESCRIBE THE ACTIVITIES NLRA UNDERTOOK TO REVIEW THE COMPANY'S REQUEST AND TO DEVELOP YOUR RECOMMENDATIONS.
7 8	A.	I reviewed the Company's Application, and the direct testimony it filed with the
9		Commission, to understand its request and to develop the recommendations herein. I also
LO		reviewed other direct testimony filed in this matter, data requests and responses exchanged
l1		by the parties, and associated exhibits.
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13 14	Q.	IS THIS THE FIRST OCCASION ON WHICH NLRA HAS INTERVENED IN A MATTER RELATING TO SCHEDULE 38?
L5	A.	No. In 2015, NLRA intervened in the Company's previous application for a reduction in
L6		the required QF contract term. See, Docket No. 20000-481-EA15 (Record No. 14220)
L7		(the "2015 Proceeding").
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19 20	Q.	DID NLRA SUPPORT THE COMPANY'S APPLICATION IN THAT PROCEEDING?
21	A.	Yes. NLRA supported the Company's application to reduce to three years from 20 years
22		the minimum term of QF contracts. NLRA participated thereafter in the collaborative that
22 23		the minimum term of QF contracts. NLRA participated thereafter in the collaborative that the Commission convened to seek a consensus on this issue.

- 1 Q. HAVE YOU EXAMINED THE COMPANY'S APPLICATION IN THIS PROCEEDING AND, IN PARTICULAR, THE TESTIMONY OF MR.
- 3 TOURANGEAU IN SUPPORT THEREOF?
- 4 A. Yes.

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6 Q. WHAT IS NLRA'S POSITION IN THE PRESENT MATTER?

NLRA continues to support a reduction in the minimum contract term for QF contracts,

particularly those associated with intermittent, non-dispatchable resources. However,

NLRA believes that the Commission should adopt a shorter minimum contract term,

specifically, a term of one year, perhaps with a provision for renewal (for a specified number of periods) at the option of the owner of the facility at a rate consistent with the

Company's then-prevailing avoided cost. NLRA also supports the proposed clarifications in the procedures for establishing OF PPAs.

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15 Q. DOES FEDERAL LAW OR STATE STATUTE REQUIRE RMP TO ENTER WITH QFs CONTRACTS OF A PARTICULAR TERM?

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A. As I stated in my direct testimony in the 2015 Proceeding, there is nothing in PURPA or any other federal statute or regulation that requires utilities to enter with QFs PPAs of a particular minimum term. PURPA leaves this matter to the states, and practice varies

¹ This would be consistent with the policy recently adopted by the Alabama Public Service Commission, cited by Mr. Tourangeau on page 15 of his direct testimony: "In 2017, Alabama approved forecasted energy and capacity rates fixed for a one-year term with an evergreen provision allowing QFs to sell power in future years at updated avoided cost rates." *citing* Order, Alabama Public Service Commission, Docket No. U-5213 WL 9775573 (March 7, 2017).

widely: In the Company's service area, for example, the current range is from two years

(Idaho) to 20 years (Wyoming).²

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Q. DOES LOCKING IN FIXED PRICES FOR PURCHASES IN 20-YEAR CONTRACTS COMPLY WITH PURPA'S RATEPAYER INDIFFERENCE STANDARD?

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As I stated in my direct testimony in the 2015 Proceeding, the wind and solar industries themselves have made the point that costs are coming down – locking in today likely will produce higher rates over the horizon of a long-term contract. Obviously, energy prices could rise, in which case fixed-price contracts could be advantageous to the Company and its ratepayers. But if, as in the case of PURPA contracts, rates are not determined through open competition, and the resource is neither dispatchable nor subject to curtailment, there remains a significant disadvantage for ratepayers compared to non-PURPA contracts on otherwise similar pricing and terms.

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17 Q. DO 20-YEAR CONTRACTS PROVIDE THE COMPANY WITH THE
18 NECESSARY FLEXIBILITY TO BALANCE SUPPLY AND DEMAND ACROSS
19 ITS SYSTEM?

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As I stated in my direct testimony in the 2015 Proceeding, the Company's ability to appropriately balance supply and demand across its system depends on a dynamic market for energy and capacity; this is inconsistent with the requirement that it enter long-term,

² A useful recent overview of the PURPA legal context, including the respective authority of FERC and the states' public utility commissions, contract requirements and parameters and approaches to determining avoided cost, can be found in Flatt, Yeazal and Wobbleton, *Federal parameters on the definition of avoided cost under PURPA and legal methods currently used and acceptable under PURPA application for states to encourage or discourage distributed generation* (2017, University of North Carolina Center for Climate, Energy, Environment and Economics and University of Houston Law Center, Environment, Energy & Natural Resources Center). *See esp.* pp.6-7.

fixed-price contracts, especially for intermittent, non-dispatchable resources from facilities such as QFs that the Company cannot curtail (except in the case of emergency).

Q. ISN'T THE MATTER OF LONG-TERM, FIXED-PRICE CONTRACTS PART OF A BROADER SET OF ISSUES RELATED TO PURPA?

A.

Yes. As numerous commentators have noted, PURPA has long outlived the problem it was designed to address. When it was enacted in 1978, in the wake of the Arab oil embargo earlier in that decade, it sought to encourage development of domestic energy resources and encourage energy-efficient generation (notably cogeneration) to address what then was perceived to be excessive dependency on foreign resources. This – not climate-related "green" energy concerns – motivated enactment of the statute: Monopoly public utilities, many in Congress then believed, could not be relied on to innovate on their own, and had structural and economic disincentives to purchasing energy from third-party developers of new generating technologies.

Q. WHAT HAS CHANGED SINCE THE ENACTMENT OF PURPA IN 1978?

A.

As I noted in my testimony in the 2015 Proceeding, the United States no longer is faced with undue dependency on foreign energy resources. Indeed, it is poised to become (if it hasn't already) the largest producer of energy resources on the planet and a major energy exporter. Energy efficiency and distributed generation, meanwhile, are putting downward pressure on demand from utilities' customers. While this moderation in demand is being offset on the supply side by the retirement of existing generating facilities and their replacement with others and on the demand side by emerging uses such as electric vehicles,

competitively priced power from third-party generators. In Wyoming, this was illustrated most recently by the Company's issue of RFPs for substantial new wind generation, which is bringing on resources on terms far better for ratepayers than the most recent PURPA-based QFs that have reached commercial operation. In this context, PURPA has become a roadblock to delivering reliable service at the lowest cost while doing nothing to diversify utilities' resources. What it *has* done, of course, is provide the foundation for a "QF industry" that uses PURPA's "must-take" provision to piggy-back on utilities' and their customers' creditworthiness through long-term, fixed-price PPAs. The key point here is that the combination of the must-take provision, noncompetitive pricing and other terms and the substantially higher cost of financing for QFs through the development, construction and operation phases makes it nearly certain that ratepayers will pay more for QF energy.

Q. HOW IS THE APPLICATION OF PURPA'S MANDATORY PURCHASE REQUIREMENT IN THIS CHANGED CONTEXT PRODUCING SIGNIFICANT DISTORTION?

A.

As I stated in my direct testimony in the 2015 Proceeding, rather than providing a needed add-on resource in an environment of escalating demand, PURPA now compels the Company and other public utilities to purchase electricity that they do not need from facilities that would not otherwise be built. The QF technologies covered by the statute, moreover, vary widely in their value to utilities charged with delivering reliable electricity at the lowest practicable cost. PURPA-qualified cogenerated electricity, for example, is "firm" in the sense that it is both predictable and dispatchable. Wind and solar (wind,

especially) are neither, and they introduce substantial grid-management difficulties and the increased costs associated with managing them. The storage technologies that could mitigate this are underdeveloped and overly costly. And, of course, QF-generated electricity is not subject to curtailment, further impairing the Company's ability to efficiently manage the grid.

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Q. WHY DOES NLRA BELIEVE THAT A ONE-YEAR RENEWABLE PPA TERM IS MORE APPROPRIATE FOR QF CONTRACTS?

A one-year term would ensure that the price of the energy subject to the PPA would remain 10 A. consistent with the Company's then-prevailing avoided cost. It would, moreover, be 11 consistent with the periodicity of the review and adjustment of rates in the annual Energy 12 Cost Adjustment Mechanism ("ECAM") process pursuant to Schedule 95. Moreover, 13 unlike IRP-based development subject to an open, transparent and competitive public 14 process, QF contracts are subject to the "must-take" provision of PURPA on terms dictated 15 16 by the relatively complex "PDDRR" methodology. Under these circumstances, we believe it is even more important that the contract not be longer than necessary. NLRA believes 17 that the Company's being forced, under the must-take provision of PURPA, to enter longer-18 term, fixed-price contracts for the purchase of energy from QFs – especially under the 19 existing methodology for calculating avoided cost – creates a substantial risk that the 20 Company's customers will pay more than would otherwise be necessary for the electricity 21 they purchase. This creates a very strong presumption that it violates the ratepayer 22 indifference standard. 23

1 Q. WHAT IS THE CONTEXT IN WHICH YOU HAVE REACHED THIS CONCLUSION?

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- A. The context in which NLRA has reached this conclusion has been thoroughly documented in the Company's Application and the accompanying exhibits, notably that of Mr.

 Tourangeau. Reduced to essentials, the key aspects are the following:
 - Long-term, fixed-price contracts for PURPA QF resources that are neither dispatchable nor curtailable are a significant impediment to the Company's effective management of its system. As with other electric utilities in the United States and elsewhere, the Company's approach to matching supply and demand across its service area has become much more dynamic than in the past. The Company has responded with participation in sophisticated, real-time systems (energy imbalance markets "EIMs") balancing supply and demand across large and varied service areas.³
 - Moreover, as the share of renewable resources in the Company's generating fleet has increased, the cost of those resources has been coming down, quickly. Federal government statistics⁴ show that for onshore wind energy (as an example), total system levelized cost of energy (LCOE) has fallen from \$73 per megawatt hour (MWh) to \$43 per MWh (net of subsidies) over 5 years due to both declining costs and improving efficiency. Solar PV has shown an even more remarkable decline: From \$125 to \$48 per MWh over the same period.

³ In addition, the diversification of resources across the Company's system, coupled with its investment in the technology for real-time balancing of supply and demand, increases reliability compared to the days when a handful of huge generating stations, connected to the load by hundreds of miles of transmission lines, created much greater risks for large, potentially system-wide, outages.

⁴ Levelized Cost and Levelized Avoided Cost of New Generation Resources in the *Annual Energy Outlook, U.S. Energy Information Administration (Reports for 2015 and 2019)*

Against the foregoing background, it is clear that for the Company's customers the most important consideration is that the terms on which it acquires the energy it delivers enable it to manage its operations as cost-effectively as possible. It has available in its generating fleet and in the wholesale market a broad range of sources for this energy. Its professionals should have available the full toolkit they need to keep costs as low as possible consistent with providing reliable service and with as few constraints as possible. Multi-year, fixed-price QF contracts at non-competitive prices are just such a constraint and their use should be minimized.

Q. IF THE COMMISSION APPROVES A REDUCTION IN THE MINIMUM TERM OF QF PPAS, WHAT, IF ANY, AFFECT SHOULD IT HAVE ON THOSE FOR FACILITIES NOT YET IN SERVICE?

A.

Given the manifest burden of these contracts on the Company and its ratepayers, the Commission should view with skepticism assertions that existing QF contracts with longer-term, fixed-price provisions should be "grandfathered." We strongly suggest that the Commission require the Company to bring into compliance with a newly-adopted Commission policy any contracts for facilities that are not in service on or before the date of the Commission's decision. If the Commission concludes that this approach would be unduly burdensome on projects in which material expenditures for equipment and construction may have been made in reliance on a long-term, fixed-price contract, at a minimum the Commission should apply the new policy to all QFs that have not yet begun substantial physical construction.

1	Q.	IS IT REASONABLE TO SUPPOSE THAT QF DEVELOPERS WILL BE UNABLE
2		TO OBTAIN FINANCING FOR THEIR PROJECTS WITHOUT LONGER-TERM,
3		FIXED-PRICE CONTRACTS?
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No. Mr. Tourangeau has addressed this issue thoroughly in his testimony. As he notes, the capital markets offer numerous options for QFs seeking financing, and it is consistent with the information presented by NLRA witness Laura Ladd in the 2015 Proceeding.

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Q. DOES NLRA SUPPORT THE COMPANY'S PROPOSED CLARIFICATIONS TO THE PPA PROCESS?

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12 **A.** Yes. We believe it will bring much greater certainty and transparency to the process, for the reasons outlined in Mr. Tourangeau's testimony.

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15 Q. SHOULD THERE BE ANY OTHER CHANGES TO SCHEDULE 38?

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A. NLRA recommends that Schedule 38 be amended to require the PSC to review and approve the pricing and other terms of QF PPAs to ensure that ratepayers are not being disadvantaged. In addition, the terms of QF PPAs should be public, not accorded confidential treatment. These are federally mandated contracts in the context of a regulated public utility and not subject to commercial competition. Under these circumstances they should be subject without exception to the Wyoming Public Records Act.

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24 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

25 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING					
IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER FOR A MODIFICATION OF AVOIDED COST METHODOLOGY AND REDUCED CONTRACT TERM OF PURPA POWER PURCHASE AGREEMENTS)))) Docket No. 20000-545-ET-18) (Record No. 15133))				
AFFIDAVIT, OATH, A	AND VERIFICATON				
Kenneth G. Lay (Affiant) being of lawful age and says that:	being first duly sworn, hereby deposes and				
Affiant is a member of the Northern Laran is a party in this matter.	nie Range Alliance Steering Committee, which				
Affiant prepared and caused to be filed the necessary action, been duly authorized to be Verification.					
	ant's knowledge, all statements and y and all of its associated attachments are true adations of the Affiant in his official capacity as				
Further Affiant Sayeth Not.					
Dated this 18 day of April, 2019.	Kenneth G. Lay 1351 Boxelder Rd.				
DISTRICT STATE OF <u>Columbia</u>) SS:	Converse County, Wyoming				
COUNTY OF) The foregoing was acknowledged before n April, 2019. Witness my hand and official seal.	ne by Kenneth G. Lay on this day of				
My Commission Expires: MARK P. SERRANO NOTARY PUBLIC DISTRICT OF COLUMBIA My Commission Expires September 14, 2019	Notary Public Notary Public				

CERTIFICATE OF SERVICE

I certify that on the 19th day of April, 2019, that a copy of the foregoing **Northern Laramie Range Alliance Direct Testimony of Kenneth G. Lay** was sent via USPS mail and electronic mail addressed as follows:

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