

NOV 06 2007

BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING

IN THE MATTER OF THE APPLICATION OF)
ROCKY MOUNTAIN POWER FOR A) Docket No. 20000-283-EA-07
CERTIFICATE OF PUBLIC CONVENIENCE) Record No. 11261
AND NECESSITY TO CONSTRUCT THE NEW)
99 MW GLENROCK WIND ENERGY PROJECT)

IN THE MATTER OF THE APPLICATION OF)
ROCKY MOUNTAIN POWER, FOR A)
CERTIFICATE OF PUBLIC CONVENIENCE) Docket No. 20000-285-EA-07
AND NECESSITY TO CONSTRUCT THE NEW) Record No. 11297
99 NW SEVEN MILE HILL WIND ENERGY)
DEVELOPMENT PROJECT)

PRE-FILED DIRECT TESTIMONY OF

Denise Kay Parrish

On Behalf of the Office of Consumer Advocate

Filed November 6, 2007
Hearing November 27, 2007

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Denise Kay Parrish and my business address is 2515 Warren Avenue,
3 Suite 304, Cheyenne, Wyoming 82002.

4

5 **Q. WHAT IS YOUR OCCUPATION?**

6 A. I am currently the Deputy Administrator of the Wyoming Office of Consumer
7 Advocate (OCA). In this position, I review and provide input into the
8 recommendations made by the OCA. I review utility applications filed with the
9 Wyoming Public Service Commission (Commission) and provide advice to the
10 Administrator regarding the involvement the OCA should have, if any, in the
11 various cases. I review applications, perform analyses and provide
12 recommendations to the Commission relative to various utility matters, including
13 revenue requirements, tariff language, competitive issues, rules and regulations,
14 and other items. I write and issue press releases, perform special studies, as well
15 as provide information and research to customers, the legislature, the OCA
16 Administrator, and others. I do other assignments and tasks, as needed and as
17 assigned by the OCA Administrator.

18

19 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL**
20 **BACKGROUND?**

21 A. In 1976, I graduated from Michigan State University with a Bachelor's degree in
22 Accounting. I have spent thirty years as a regulator of public utilities, having
23 been on the staff of four state utility regulatory commissions and two consumer
24 advocate entities. Nearly sixteen of these years have been spent at the Wyoming
25 Public Service Commission. I have taken classes related to various aspects of
26 public utility regulation, including income taxes, regulatory accounting, capital
27 recovery, cost-of-service, rate design, revenue requirements, separations and
28 allocations, and other specialized topics. I have taught classes on issues of
29 accounting standards, general ratemaking principles, affiliate transactions,
30 regulatory accounting, financial reporting, and other specialized topics to
31 regulatory professionals.

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Since 2002, I have been an instructor at the Michigan State University Institute of Public Utilities (CAMP NARUC). I have also worked with the Nigerian Communications Commission on regulatory accounting and reporting matters and have done work for the International Telecommunications Union as a seminar leader. Furthermore, I have participated as a presenter at several meetings of the Tariff and Pricing Committee of the Energy Regulators Regional Association (ERRA). Finally, I was a presenter at, and participant in a workshop sponsored by the Energy Group of the Institute of International Education (IIE) regarding the development of an Electricity Distribution Indicator Toolkit.

I am the past chair and a current member of the National Association of Regulatory Utility Commissioners' Staff Subcommittee on Accounting and Finance. I am a member of the NARUC Staff Subcommittee on International Relations. I am currently a member of the National Association of State Utility Consumer Advocates' (NASUCA) Tax and Accounting Committee. Finally, I am a member of the staff of the Federal-State Joint Board on Universal Service.

Q. DO YOU HAVE EXPERIENCE AS AN EXPERT WITNESS?

A. Yes. I have testified more than one hundred twenty-five times as an expert witness. I have testified before the Michigan Public Service Commission, the Colorado Public Utilities Commission, the Colorado District Court, the Arizona Corporations Commission, the Wyoming Public Service Commission, the Wyoming Legislature Joint Corporations Committee, the Federal Energy Regulatory Commission, and the Federal-State Joint Board on Universal Service. I have testified in telecommunications, water, wastewater, electric, and natural gas cases. The subjects upon which I have testified include revenue requirements, rate design, cost-of-capital, nuclear decommissioning, accounting deferrals, adjustment mechanisms, income taxes, capital recovery, universal service funding, and other specialized topics.

1 **Q. WHO DO YOU REPRESENT IN THIS PROCEEDING?**

2 A. As a member of the Office of Consumer Advocate, I represent the interests of
3 Wyoming citizens and all classes of utility customers in this public utility matter,
4 as required by W.S. § 37-2-401. It is neither my intent nor my charge to represent
5 the position of any individual, group, municipality, or corporation.
6

7 **Q. WHAT COURSE OF ACTION IS AVAILABLE TO INDIVIDUAL**
8 **CONSUMERS OR OTHER INTERESTED PARTIES IF THEY WISH TO**
9 **PURSUE ISSUES NOT ADDRESSED BY THE OFFICE OF CONSUMER**
10 **ADVOCATE, OR TAKE A DIFFERENT POSITION FROM THE OFFICE**
11 **OF CONSUMER ADVOCATE?**

12 A. Consumers and other parties may intervene in the proceedings and raise
13 additional issues not addressed by the Office of Consumer Advocate, and may
14 take different positions than those presented by the OCA. Consumers may also
15 present written or oral comments at the hearing, which then become part of the
16 record in the case and are available to the Commission as it makes its decision on
17 any particular proposal or suggested change. The OCA encourages the
18 participation of the public and all interested parties in cases before the
19 Commission.
20

21 **Q. ARE YOU SPONSORING ANY EXHIBITS OR SCHEDULES AS PART**
22 **OF YOUR DIRECT PREFILED TESTIMONY IN THIS PROCEEDING?**

23 A. No, I am not. All of the information that I wish to present as part of my prefiled
24 direct testimony is contained within the body of the written testimony.
25

26 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

27 A. The purpose of my testimony is to support the wind projects that are proposed in
28 these dockets, but only within the context of the entire preferred portfolio of
29 resources resulting from PacifiCorp's integrated resource planning (IRP) process.
30

1 **Q. HAVE YOU PARTICIPATED IN THE INTEGRATED RESOURCE**
2 **PLANNING PROCESS?**

3 A. Yes. For the past several years, I have attended most of PacifiCorp's IRP public
4 input meetings. In recent times, PacifiCorp has been preparing a new IRP
5 document about every other year. In the year leading up to the issuance of the
6 new document, a series of public input meetings and workshops will be held. At
7 these meetings, interested persons explore and discuss the critical inputs and
8 modeling results with PacifiCorp's subject matter experts. Those in attendance
9 have ranged from members of the public to regulatory personnel to environmental
10 activists.

11

12 **Q. WHAT IS THE RESULT OF THE IRP PUBLIC INPUT MEETINGS?**

13 A. The input received by the interested persons is taken into consideration by
14 PacifiCorp when it develops its preferred portfolio of resources to meet expected
15 demand for the next 10 years. A description of this preferred portfolio is then
16 provided in a written document that thoroughly explains the inputs, assumptions,
17 and analyses used to support the proposal. The 2007 integrated resource plan and
18 all of its appendices was submitted to the Commission and public input
19 participants on or about May 30, 2007. Mr. Duvall has submitted the document in
20 this proceeding as Exhibit RMP __.1(GND-1) and Exhibit RMP __.2(GND-2).

21

22 **Q. IN ADDITION TO THE WIND PROJECTS FOR WHICH APPROVAL IS**
23 **SOUGHT IN THESE DOCKETS, WHAT ADDITIONAL RESOURCE**
24 **ADDITIONS ARE CONTAINED IN THE 2007 IRP PREFERRED**
25 **PORTFOLIO?**

26 A. The preferred additional Supply and Demand-Side Proxy Resources are
27 summarized on page 8 of the Executive Summary of the 2007 IRP. For
28 convenience, I have recreated that same table below:

29

30

31

E A S T	Resource	Type	Nameplate Capacity, MW									
			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Utah pulverized coal	Supercritical							340			
	Wyoming pulverized coal	Supercritical								527		
	Combined cycle CT	2x1 F class with duct firing							548			
	Combined cycle CT	1x1 G class with duct firing										357
	Combined Heat and Power	Generic east-wide							25			
	Renewable	Wind, Wyoming		200		200	200			300		
	Class 1 DSM*	Load control, Sch. irrigation					26	25	18			
	Front office transactions**	Heavy Load Hour, 3 rd Qu.				393	272	97	3	149	192	165
W E S T												
	CCCT	2x1 F Type with duct firing						602				
	Combined Heat and Power	Generic west-side							75			
	Renewable	Wind, SE Washington	300	100								
	Renewable	Wind, NC Oregon			100	100		100				
	Class 1 DSM*	Load control, Sch. irrigation				12	11	12				
	Front office transactions **	Flat annual product				219	64	555	657	247	246	249
	Annual Additions, Long Term Resources		300	300	100	312	839	1,125	318	527		357
	Annual Additions, Short Term Resources					612	336	652	660	396	438	414
	Total Annual Additions		300	300	100	924	1,175	1,777	978	923	438	771

* DSM is scaled up by 10% to account for avoided line losses.

** Front office transaction amounts reflect purchases made for the year, and are not additive.

1 In summary, the IRP shows that there is a need and desire for substantial wind
2 resources to be added to the system. However, the expected customer demands
3 for power also support substantial levels of other types of resources including:
4 867 additional MW of pulverized coal, 1,507 additional MW of natural gas fired
5 generation, and more than 3,500 cumulative MW of purchases between 2007 and
6 2016.

7
8 **Q. WHAT RELEVANCE DOES THE INCLUSION OF THESE OTHER**
9 **(NON-WIND) RESOURCES IN THE 2007 IRP HAVE TO THIS**
10 **PROCEEDING?**

11 A. Mr. Duvall describes in his testimony the appropriate use of the IRP results. He
12 explains that the preferred portfolio is not static, but subject to ever-changing
13 assumptions and market conditions. He further explains that the IRP is a
14 roadmap, or a starting point, for looking at the acquisition of new resources. In
15 that regard, the 2007 IRP is used to support the addition of the wind projects.

16
17 I do not disagree with any of Mr. Duvall's testimony as far as it goes. However, I
18 offer a reminder that the preferred portfolio is based on finding a reasonable
19 balance of costs and risks. As further explained on page 7 of the 2007 IRP:

20 Diversification of resources helps to balance costs and risks. A
21 combination of supercritical pulverized coal, additional renewable
22 generation, and gas-fired resources is desired to achieve a low-cost
23 portfolio that effectively addresses all major sources of risk;
24 *conversely, portfolios dominated by a single resource type were*
25 *found to be more expensive and risky for customers.* Studies also
26 demonstrated that increasing wind capacity and reducing reliance
27 on market purchases promotes a better balance of portfolio cost
28 and risk. [Emphasis added.]
29

30 Thus, the OCA's support of the wind resources for which approval is requested in
31 these two cases is based on our support for the preferred portfolio as a whole.
32 Only when looking at the entirety of the preferred portfolio and the balance of
33 costs and risks does the addition of these wind generators to the PacifiCorp
34 system make sense.

1

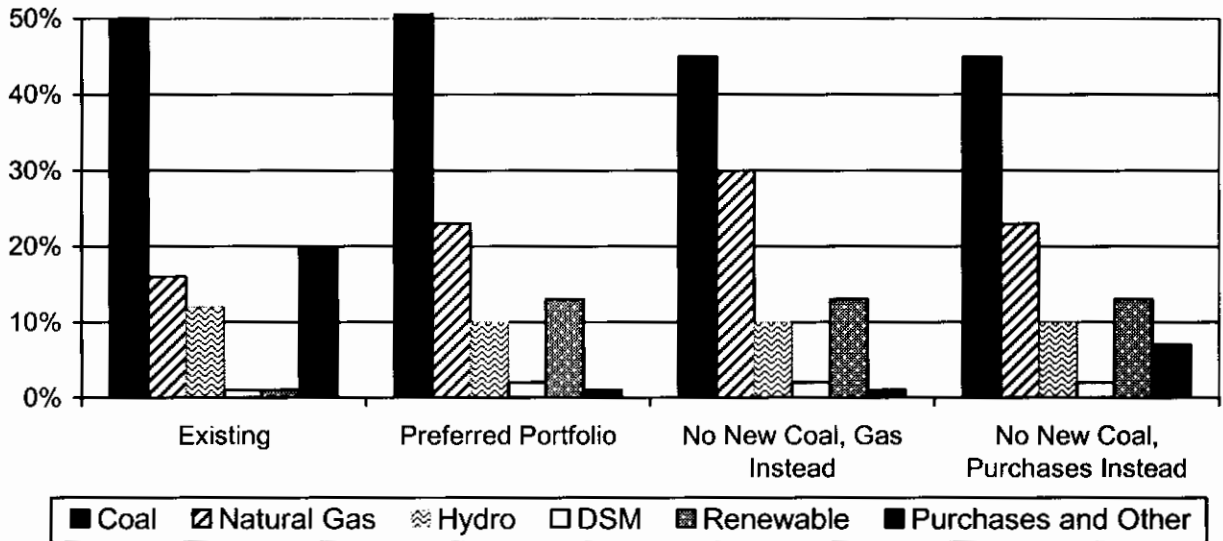
2 **Q. PLEASE DISCUSS FURTHER THE BALANCE OF RESOURCES**
3 **CONTAINED IN THE PREFERRED PORTFOLIO.**

4 A. The authorization and construction of the wind generators subject to these dockets
5 is consistent with the IRP's preferred portfolio where 200 MW of renewable
6 energy is shown to be added in 2008. This is not problematic as long as other
7 aspects of the preferred portfolio also stay on course. These other resources are
8 needed not only to keep an appropriate cost/risk balance, but are also needed to
9 provide back-up when renewable resources are not able to generate (e.g., when
10 wind conditions are unfavorable).

11

12 The OCA is most concerned about the base load resources of the preferred
13 portfolio and whether they are on track to be available to meet demand when
14 needed. Specifically, we are most concerned about whether any coal (or perhaps
15 nuclear) resources will be available to meet growing base load – and not only
16 growing peak – needs. If base load generation additions become indefinitely
17 stalled, the continuing demands on the system will need to be met with other
18 resources. The chart below depicts the resource mix that could occur under a
19 variety of circumstances and compares them against the current resource mix:

Resource Capacity Mix



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2

3 Without the two new coal plants (or similar base load plants) that are found in the
 4 preferred portfolio, the percentage of coal capacity drops from about 50 percent to
 5 about 45 percent. Given what is known today, even considering the enactment of
 6 some level of carbon tax legislation, the risk analysis found that some new coal
 7 resources would likely be cost effective. Even more concerning is the generation
 8 with which the planned coal plants would be replaced if they were not to be built.
 9 Most likely, they would be replaced with either additional natural gas plants or
 10 market purchases. These two scenarios are the two on the far right side of the
 11 chart above. Replacing new coal with additional natural gas generation, all other
 12 things being equal, would increase the percentage of natural gas capacity in the
 13 resource mix to 30 percent. Given the instability of the natural gas market, and
 14 current record high oil prices, this would increase the risk of the portfolio mix.

15

16 In the scenario where additional market purchases would increase to replace the
 17 missing coal generation, the percentage of capacity subject to market purchases
 18 would be about seven percent. This too is risky, as PacifiCorp is relying on the
 19 market to not only buy power to meet peak, but is also purchasing to meet base

1 load demands. And, the scenario already includes 23 percent natural gas, an
2 increase of 70 percent natural gas capacity on the system, as well as 13 percent
3 renewables based on the addition of 1,600 MW of wind throughout PacifiCorp's
4 system.

5
6 In summary, it is important that approval of the wind plants in these dockets be
7 constructed as part of a larger plan, and not on a piece part basis. This same
8 sentiment appears to be recognized by the Commission in its 2009-2010
9 Biennium Strategic Plan, at page 3, when it states, "Reliable utility systems
10 require dependable supplies, capacity, and sufficient transmission and distribution
11 systems."

12
13 **Q. ARE YOU SUGGESTING THAT PACIFICORP HAS BEEN LESS THAN**
14 **DILIGENT IN PURSUING APPROVAL OF THE COAL GENERATION**
15 **DESCRIBED IN THE 2007 IRP?**

16 A. No, not at this time. In fact, it has been widely reported that PacifiCorp is
17 considering a lawsuit against certain California municipalities in an attempt
18 continue plans for a coal generator in Utah. However, the cards continue to be
19 stacked against PacifiCorp building a coal plant in the near future. While it has
20 become more difficult to build coal generation, it is not yet impossible. Thus, we
21 encourage PacifiCorp to continue on its quest for affordable base load generation.
22 We encourage PacifiCorp to explore both traditional and non-traditional means of
23 pursuing a complete package of cost-effective self-generation including exploring
24 new means of allocating the cost of the generation.

25
26 **Q. WHAT IS YOUR RECOMMENDATION REGARDING THE WIND**
27 **PROJECTS FOR WHICH APPROVAL IS REQUESTED IN THESE**
28 **DOCKETS?**

29 A. The OCA recommends that the Commission grant the requested certificates of
30 public convenience and necessity. However, to assure that the wind projects are
31 not approved in isolation, the Commission should establish a forum in which

1 interested parties are encouraged to discuss PacifiCorp's IRP and specifically, the
2 preferred portfolio.

3
4 **Q. WHAT TYPE OF FORUM ARE YOU SUGGESTING FOR FURTHER**
5 **DISCUSSION OF THE IRP?**

6 A. Consistent with our comments filed in Docket No. 20000-275-EA-07, the OCA's
7 preference is for the Commission to set PacifiCorp's 2007 IRP either for formal
8 legal argument or formal hearing. As we stated in our *Notice of Intervention and*
9 *Initial Comments* in Docket No. 20000-275-EA-07,

10 Either of these forums will provide interested parties the
11 opportunity to explain their position regarding the desire for and
12 necessity of formal approval or acknowledgement of the IRP, as
13 well as the implicit (if any) implications that accompany that
14 approval or acknowledgement.

15
16 Furthermore, we ask that the forum selected – whether a formal hearing or
17 something more informal – include a discussion by the interested parties of when
18 and how regulators should formalize their role in overseeing the adequacy of
19 resources to meet a currently growing need for energy supply. Yet, it should be
20 clear that pending these discussions, the utility still has an obligation to move
21 forward with its planning to obtain an adequate supply to meet its growing
22 customer load.

23
24 **Q. WHAT IMPLICATIONS DOES YOUR RECOMMENDATION OF**
25 **APPROVAL OF THE CERTIFICATES OF PUBLIC CONVENIENCE**
26 **AND NECESSITY HAVE RELATIVE TO COST RECOVERY OF THESE**
27 **PROJECTS?**

28 A. None. Our recommendation of approval of the certificates is not meant to suggest
29 that the cost of these projects should be automatically recovered and deemed
30 prudent. While PacifiCorp has shown a reasonable level of cost effectiveness for
31 the wind projects when taken as part of a larger package of resources, the specific
32 review of the costs and the means of cost recovery should be a ratemaking matter
33 for another day.

1

2 **Q. DOES THIS COMPLETE YOUR PRE-FILED DIRECT TESTIMONY?**

3 A. Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that, on November 6, 2007, I served the foregoing Pre-Filed Testimony of Denise Kay Parrish, in Docket Nos. 20000-283-EA-07 and 20000-285-EA-07, by delivering copies thereof to the individuals/entities below, via the U.S. Postal Service

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