



1 **Q. Please state your name, business address and present position with**  
2 **PacifiCorp (the Company).**

3 A. My name is Mark R. Tallman, my business address is 825 NE Multnomah, Suite  
4 2000, Portland, Oregon 97232, and my present position is Vice President of  
5 Renewable Resource Acquisition.

6 **Qualifications**

7 **Q. Briefly describe your educational and professional background.**

8 A. I have a Bachelor of Science degree in Electrical Engineering from Oregon State  
9 University and a Masters of Business Administration from City University. I am  
10 also a Registered Professional Engineer in the states of Oregon and Washington.  
11 I have been the Vice President of Renewable Resource Acquisition since  
12 December 2007. Prior to that, I was Managing Director of Renewable Resource  
13 Acquisition since April 2006. I have worked at the Company for more than 23  
14 years in a variety of positions of increasing responsibility in the commercial and  
15 trading organization, in the Company's engineering organization and in the retail  
16 distribution organization, including five years as a District Manager.

17 **Purpose of Testimony**

18 **Q. What is the purpose of your testimony?**

19 A. The purpose of my testimony is to demonstrate the prudence of the Marengo II  
20 wind resource and to show that this resource is used and useful in Washington.

21 **Q. Please briefly explain how you support the prudence and usefulness of this**  
22 **resource in your testimony.**

23 A. I describe the integrated resource plan (IRP) and how that strategic tool is utilized

1 to assist the Company in identifying and quantifying the need and timing of new  
2 supply-side resources. I provide an overview of the relevant MidAmerican Energy  
3 Holdings Company (MEHC) transaction commitments and the requirements of  
4 the Washington Renewable Portfolio Standard that was enacted in November  
5 2006 through a ballot initiative. I conclude with a description of the wind resource  
6 acquired by the Company and the decision-making process that led to the  
7 acquisition.

## 8 **Integrated Resource Plan**

9 **Q. Please briefly describe the integrated resource plan.**

10 A. The IRP is a strategic planning tool that presents a framework of future actions to  
11 ensure PacifiCorp continues to provide reliable, least-cost service with  
12 manageable and reasonable risk to its customers. The IRP builds on PacifiCorp's  
13 prior resource planning efforts and reflects significant advancements in portfolio  
14 modeling and risk analysis.

15 **Q. What is the main purpose of the IRP?**

16 A. The main purpose of the IRP is to serve as a strategic roadmap to assist the  
17 Company in determining and implementing the Company's long-term resource  
18 strategy. In doing so, it accounts for state commission IRP requirements; input  
19 received from stakeholders, corporate business goals, other potential external  
20 influences, and MidAmerican Energy Holdings Company (MEHC) transaction  
21 commitments that are related to IRP activities, such as the acquisition of  
22 renewable resources.

23 As a strategic business planning tool, the IRP supports informed decision-

1 making on resource procurement by providing an analytical framework for  
2 assessing resource investment tradeoffs. As an external communications tool, the  
3 IRP engages numerous stakeholders in the planning process and guides them  
4 through the key decision points leading to the Company's preferred portfolio of  
5 supply-side, demand-side and transmission resources.

6 The emphasis of the IRP is to determine the most robust resource plan  
7 under a reasonably wide range of potential futures, as opposed to the optimal plan  
8 for some expected view of the future. The modeling is intended to inform and  
9 support, rather than overshadow, the expert judgment of the Company's decision-  
10 makers. The preferred portfolio is not meant to be a static planning product, but  
11 rather is expected to evolve as part of the ongoing planning process as new  
12 information and circumstances become available. As a multi-objective planning  
13 effort, the IRP must reach a balanced position upon considering several priorities  
14 and accounting for diverse and sometimes conflicting stakeholder views. In short,  
15 the IRP cannot be all things to all people. As the owner of the IRP, the Company  
16 is uniquely positioned to determine the resource plan that best accomplishes IRP  
17 objectives on a system-wide basis, thereby meeting customer, community and  
18 investor obligations collectively.

19 **Q. What is the outcome of the IRP process?**

20 A. The result is a preferred portfolio that represents a balance of resource additions  
21 that meet future customer needs, while minimizing cost, balancing diverse  
22 stakeholder interests and addressing environmental concerns.

23 To follow through on the findings of the resource plan, PacifiCorp's IRP

1 includes an action plan that is intended to inform and provide guidance for the  
2 Company's resource procurement activities over the next few years.

3 **Q. How did the 2004 Integrated Resource Plan address renewable resources?**

4 A. The Company's 2004 IRP identified 1,400 megawatts (MW) of renewable  
5 resources as part of a least-cost portfolio of resources to meet the Company's  
6 growing demand over a ten-year period. The 2004 IRP included wind resources  
7 as a proxy for all renewable resources, which are part of a prudent and balanced  
8 resource mix. The 2004 IRP characterized wind energy as having only minor  
9 impacts on the environment and producing no air pollutants or greenhouse gasses  
10 (page 94 of PacifiCorp's 2004 IRP).

11 **Q. Please describe the Company's renewable resource request for proposal.**

12 A. The Company's renewable resource RFP, designated RFP 2003-B, was issued in  
13 February 2004 and recommended the acquisition of up to 1,100 MW of renewable  
14 resources. Following the acquisition of PacifiCorp by MEHC, PacifiCorp  
15 amended RFP 2003-B by re-opening the process to allow previous bidders to  
16 update their proposals and invite new bidders to participate.

17 **Q. What renewable resources resulted from the Company's RFP 2003-B RFP?**

18 A. The Leaning Juniper 1 wind resource (100.5 MW) located in Oregon; the  
19 Marengo wind resource (140.4 MW) located in Washington; and the right, but not  
20 the obligation, to construct the Marengo II wind resource (70.2 MW) near the  
21 Marengo wind resource. All three of these wind resources are in service and  
22 deliver energy to PacifiCorp's west system.

1 **Q. How did the 2007 Integrated Resource Plan address renewable resources?**

2 A. The 2007 IRP, which was acknowledged by this Commission, identifies 2,000  
3 MW of renewable resources to be acquired by 2013. Under this plan, the  
4 company will seek to acquire 1,400 megawatts of new renewable resources by  
5 2010, with an additional 600 megawatts in place by 2013. The 2,000 megawatts  
6 of renewable resources is inclusive of the 1,400 megawatts of cost-effective  
7 renewable resources identified in the company's 2004 IRP. While the company  
8 used wind for modeling purposes in the IRP process, renewable generation  
9 includes other fuel sources such as biomass and landfill gas.

10 **Q. What assumption was made in the 2007 IRP with respect to renewable**  
11 **resources during 2007 and 2008?**

12 A. The 2007 IRP included a proxy renewable resource (wind) located in southeast  
13 Washington for the calendar years 2007 and 2008 in the amount of 300  
14 megawatts (MW) and 100 MW respectively.

#### 15 **MEHC Transaction Commitments**

16 **Q. Please provide an overview of the MEHC transaction commitments related**  
17 **to the acquisition of renewable resources.**

18 A. As part of the regulatory approvals related to the acquisition of PacifiCorp,  
19 MEHC and PacifiCorp committed to:

- 20 • Bring at least 100 MW of cost-effective wind resources in service within  
21 one year of the close of the transaction;
- 22 • Have 400 MW of cost-effective new renewable resources in PacifiCorp's  
23 generation portfolio by December 31, 2007, and

- 1 • Reaffirm PacifiCorp’s commitment to acquire 1,400 MW of cost-effective  
2 new renewable resources.

3 The Company acquisition of the Marengo II resource is consistent with these  
4 commitments.

5 **Washington State’s Renewable Portfolio Standard**

6 **Q. Please describe the Renewable Portfolio Standard that was included in**  
7 **Initiative 937 (I-937).**

8 A. In November 2006, the voters of Washington passed I-937 which requires large  
9 utilities in the state of Washington to obtain fifteen percent of their electricity  
10 from new renewable resources such as solar and wind by 2020. I-937 also  
11 includes the following interim annual targets:

- 12 • At least three percent of load by January 1, 2012, and each year thereafter  
13 through December 31, 2015;
- 14 • At least nine percent of load by January 1, 2016, and each year thereafter  
15 through December 31, 2019.

16 **Q. What policy findings were included in I-937?**

17 A. I-937 included the following declaration of policy:

18 “Increasing energy conservation and the use of appropriately sited  
19 renewable energy facilities builds on the strong foundation of low-cost  
20 renewable hydroelectric generation in Washington state and will promote  
21 energy independence in the state and the Pacific Northwest Region.”

22 **Q. Is Marengo II expected to comply with the requirements of I-937?**

23 A. Yes.

1 **Marengo II Description and Background**

2 **Q. Please describe the size and location of the Marengo II resource.**

3 A. Marengo II is a 70.2 MW wind energy generation facility, consisting of thirty-  
4 nine Vestas 1.8 MW wind turbine generators located near Dayton, Washington.  
5 Exhibit No. \_\_\_ (MRT-2) shows a map of the plant location. PacifiCorp owns the  
6 assets, all output and all interconnection rights. The Vestas turbines located at the  
7 Marengo II site have an eighty meter rotor diameter and sixty-seven meter tubular  
8 towers. The project includes above-ground and underground electric cable, fiber  
9 optic communication cable, turbine access roads, one collector substation and one  
10 supervisory control and data acquisition system. Ongoing operations, warranty,  
11 and general maintenance services will initially be performed by Vestas American  
12 Wind Technology, Inc. for a period that extends for approximately four years.

13 **Q. How is energy generated by Marengo II delivered to PacifiCorp's system?**

14 A. The electrical energy generated by the Marengo II wind project is delivered to the  
15 project substation and stepped up from 34.5 kilovolts (kV) to 230 kV and  
16 delivered to the 230 kV transmission line constructed as part of the 140.4  
17 Marengo wind project. The Marengo wind project was previously reviewed by the  
18 Commission in the Company's last rate case, Docket UE-080220, and was found  
19 prudent and included in rates. The Marengo II electrical energy is then delivered  
20 into PacifiCorp's transmission system on the North Lewiston-to-Walla Walla 230  
21 kV transmission line via the Talbot switching station. As such, no third-party  
22 transmission expense is anticipated (*i.e.*, no Bonneville Power Administration  
23 point-to-point wheeling expenses) to deliver project energy to the Company's



1 system. The Marengo II wind resource resides within the Company's west  
2 control area.

3 **Q. Please describe the benefits of Marengo II to Washington customers and how**  
4 **the resource is used and useful in Washington.**

5 A. The Marengo II resource benefits Washington customers in several ways. It is a  
6 cost-effective addition to the Company's portfolio that is consistent with the  
7 preferred portfolios resulting from PacifiCorp's last two IRP cycles. Marengo II  
8 will also provide the Company and its customers with a long-term resource to  
9 comply with future requirements of Washington's Renewable Portfolio Standard.  
10 In addition, the Marengo II resource provides customers with a zero incremental  
11 cost fuel source (thus reducing commodity risk exposure), a multi-shafted  
12 generation resource (thus diversifying the impact of individual generator failures),  
13 and further valuable ownership and operational experience with utility scale wind  
14 projects. The Marengo II project utilizes Vestas wind turbines, thus giving  
15 PacifiCorp valuable experience with this particular manufacturer who has its  
16 North American operation and sales headquarters in the Pacific Northwest. As a  
17 result of long-term planning and the reasonable expectation that additional state  
18 and/or federal renewable portfolio standards will be established, PacifiCorp is  
19 expecting to have an ongoing need for renewable resources in the coming years.  
20 In light of these emerging requirements, PacifiCorp currently has a number of  
21 power purchase agreements and service agreements for wind projects in its  
22 portfolio and it is important that the Company continue to diversify to include  
23 owned renewable resources.

1 **Q. Does the Company provide retail electric service to Dayton, Washington?**

2 A. Yes, Marengo II is the second wind resource that PacifiCorp has acquired near the  
3 town of Dayton, Washington. The Marengo (140.4 MW), Marengo II (70.2 MW)  
4 and adjacent Puget Sound Energy wind project (the 157 MW Hopkins Ridge wind  
5 project) have provided beneficial economic impact to Dayton, Washington and  
6 nearby communities.

7 **Analysis Demonstrating that Marengo II is Prudent and Used and Useful**

8 **Q. How did the Company make the decision to move forward with the Marengo**  
9 **II project?**

10 A. Company executives were provided with a detailed overview of the project, the  
11 contract support and counterparty guarantees for executing upon the project, the  
12 risks associated with the project, the need for the project as established by the IRP  
13 and the financial assessment of the project. Included as confidential Exhibit  
14 No.\_\_(MRT-3C) is the document provided to PacifiCorp's senior management  
15 summarizing the project. Upon review of this information, the Company  
16 determined that it would proceed with construction of the project.

17 **Q. What due diligence did the Company perform with respect to the Marengo II**  
18 **resource?**

19 A. Much of the due diligence for Marengo II was the result of due diligence  
20 performed for the Marengo resource. Included as confidential Exhibit No.  
21 \_\_(MRT-4C) are internal due diligence documents provided by Company  
22 employees. In addition, the Company retained a meteorologist to report on the  
23 projected capacity factor for the resource.

1 **Q. What did the Company’s consultant conclude with respect to the projected**  
2 **capacity factor?**

3 A. The Company’s consultant concluded that the Marengo II resource is projected to  
4 have an average annual capacity factor of approximately 30.5 percent over its life.  
5 Attached as confidential Exhibit No.\_\_\_\_(MRT-5C) is the report prepared by the  
6 consultant.

7 **Q. Did the Company quantitatively evaluate the Marengo II resource?**

8 A. Yes. The “Benefits” section in confidential Exhibit No.\_\_\_\_(MRT-3C) describes  
9 the result of the Company’s quantitative evaluation. In summary, the Company  
10 quantitatively found the Marengo II resource to be economic when compared to  
11 avoided market purchases.

12 **Q. Did the Company’s quantitative analysis take into consideration Federal**  
13 **production tax credits (PTCs)?**

14 A. Yes. The benefit of PTCs were included in the quantitative analysis. The PTCs  
15 provide a significant economic benefit for the Company and its customers.

16 **Q. Did the Company qualitatively evaluate the Marengo II resource?**

17 A. Yes. The Company qualitatively evaluated the resource. Key qualitative features  
18 of the Marengo II resource were the fact that Marengo II was developed by the  
19 same developer who developed the Marengo wind project, the Company was able  
20 to procure the same wind turbines as were used for the Marengo project (thus  
21 capturing synergies) and key transmission infrastructure put in place for the  
22 Marengo project could be further utilized to interconnect the Marengo II wind  
23 project.

1 **Q. What was the qualitative benefit of the Marengo II resource being developed**  
2 **by the same entity who developed the Marengo resource?**

3 A. The developer was very familiar with local issues, land owners and constructing  
4 wind projects in the area. These features became important as the permit for the  
5 project was administratively challenged by a handful of local opponents and the  
6 developer's familiarity with local issues was invaluable as the developer, the  
7 Company and the county who issued the conditional use permit defended the  
8 validity of the permit. In addition, since the developer had worked with many of  
9 the Marengo II land owners before when constructing other wind projects, the  
10 developer was able to more efficiently construct the project. This is evidenced by  
11 the fact that the wind project was substantially complete ahead of the construction  
12 contract schedule and under budget.

13 **Q. Is the Marengo II developer the same entity who developed Puget Sound**  
14 **Energy's Hopkins Ridge wind project?**

15 A. Yes.

16 **Q. What was the qualitative benefit of the Company being able to utilize the**  
17 **same wind turbines at the Marengo II resource as at the Marengo resource?**

18 A. The Company immediately realized a synergy by being able to combine the  
19 operations and maintenance agreements for the two projects into a single  
20 agreement that resulted in lower costs to customers.

21 **Q. What qualitative benefit did Marengo infrastructure provide for the**  
22 **Marengo II resource?**

23 A. The Marengo II resource was able to utilize the 230 kV transmission line

1 extension and transmission interconnection substation constructed for the  
2 Marengo resources. This resulted in a more economic resource for the benefit of  
3 customers.

4 **Q. Were there other actions the Company took to minimize cost and risk for**  
5 **customers?**

6 A. Yes. The Company put in place a currency hedge. A portion of the charges from  
7 the turbine supplier were in Euro denominated currency and the Company took  
8 prudent steps to insure against adverse foreign currency exchange movement by  
9 placing financial hedges.

10 **Q. Did the Company place similar financial hedges when it acquired the**  
11 **Marengo wind resource?**

12 A. Yes.

13 **Q. What investment related to the Marengo II project is included in the revenue**  
14 **requirement?**

15 A. The west control area cost for the Marengo II project reflected in this case is  
16 approximately \$133 million. The O&M cost associated with the Marengo II  
17 resource for the test year is approximately \$2.4 million on a west control area  
18 basis. This is due to the wind turbine-generator maintenance agreement,  
19 permitting obligations, local levy tax and land lease expenses. Mr. R. Bryce  
20 Dalley's direct testimony describes the revenue requirement calculations  
21 associated with the proposed inclusion of this resource in rate base.

22 The Marengo II plant was placed in service June 26, 2008. The  
23 Company's net power cost calculation reflects the inclusion of Marengo II for

1 twelve months.

2 **Conclusion**

3 **Q. Please summarize your conclusions.**

4 A. The supply-side Marengo II resource, with an in-service date of June 26, 2008,  
5 represents a significant investment by the Company to meet its customers'  
6 planned energy needs. The resource also helps meet the Company's compliance  
7 obligation with respect to Washington's renewable resource portfolio standard.  
8 The Company was prudent in securing these facilities for the benefit of its  
9 Washington customers and customers will receive the benefit of the output of this  
10 facility during the rate-effective period. Therefore, the costs associated with the  
11 Marengo II facility should be included in rates.

12 **Q. Does this conclude your direct testimony?**

13 A. Yes.