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UTAH PUBLIC SERVICE COMMISSION

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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In the matter of the Application of)	
PacifiCorp and ScottishPower plc)	Docket No. 98-2035-04
for an Order Approving the Issuance)	
of PacifiCorp Common Stock)	

DIRECT TESTIMONY OF
JOHN NIELSEN

ON BEHALF OF

THE LAND AND WATER FUND OF THE ROCKIES
THE SOUTHERN UTAH WILDERNESS ALLIANCE
THE WASATCH CLEAN AIR COALITION
THE GRAND CANYON TRUST

June 18, 1999

1 I. INTRODUCTION

2

3 Q. Please state your name and address.

4 A. My name is John Nielsen. I work at 2260 Baseline Road, Suite 200, Boulder, Colorado,
5 80302.

6

7 Q. By whom are you employed and in what capacity?

8 A. I am employed by the Land and Water Fund of the Rockies (LAW Fund) as a Senior Policy
9 Advisor.

10

11 Q. Please describe the LAW Fund.

12 A. The LAW Fund is a regional law and policy center founded in 1990 to provide legal and
13 policy assistance to community groups throughout the Rocky Mountain and Desert
14 Southwest region. The LAW Fund's Energy Project was established in 1991 to advocate
15 for environmentally responsible energy policy and practices in a variety of state and
16 regional forums. Today the Energy Project operates in six western states: Arizona,
17 Colorado, Nevada, New Mexico, Utah and Wyoming.

18

19 Q. Is the LAW Fund active in Utah?

20 A. Yes, the LAW Fund has an office in Utah, Utah members, a Utah steering committee, and
21 a Board member who lives in Utah. The LAW Fund has been involved in proceedings
22 before the Utah Public Service Commission for over five years, primarily on energy
23 efficiency, financial incentive, and integrated resource planning issues.

24

25 Q. Do other environmental groups active in Utah support your testimony?

26 A. Yes. The Grand Canyon Trust, the Southern Utah Wilderness Alliance and the Wasatch
27 Clean Air Coalition support the testimony. Together these groups have over 9,000
28 members in Utah, many of whom are PacifiCorp customers. A brief description of each
29 group is attached as exhibit JN-1.

30

31 Q. Please describe your educational and professional experience.

1 A. I have a Bachelor of Arts degree in economics and mathematics from the University of
2 Colorado and a Master of Philosophy degree in economics from Yale University, where my
3 major fields of study were Industrial Organization and Public Economics. I joined the LAW
4 Fund after completing my graduate training and have been employed there for the past four
5 years as an economist and policy advisor. My responsibilities at the LAW Fund involve
6 reviewing and developing policies and practices to reduce the adverse environmental
7 impacts of electricity generation. My work at the LAW Fund has focused on renewable
8 energy, energy conservation and regional air quality.

9
10 I have testified as an expert witness before the Colorado Public Utilities Commission in
11 proceedings related to integrated resource planning, green pricing, and net metering. In
12 Utah, I have participated in the RAMPP public advisory process and the DSM
13 collaborative, and I am currently participating in the Utah Public Service Commission's
14 Renewable Energy and Energy Efficiency Task. For the past year and half, as part of the
15 Western Regional Air Partnership, I have been working with stakeholders from across the
16 region — including representatives of the Utah Division of Air Quality, the Utah Office of
17 Energy and Resource Planning, and PacifiCorp — to develop a plan for addressing regional
18 haze in the West.

19
20 Q. What is the purpose of your testimony?

21 A. I will review the impacts of the merger on PacifiCorp's environmental performance.

22
23 Q. Why are environmental issues relevant to a merger case?

24 A. The issue for the Commission's decision in this proceeding is whether the proposed merger
25 is in the public interest.¹ The impacts of the merger on the Utah's land, air and water
26 quality are an important component of the public interest. Moreover, because complying
27 with environmental regulations is an increasingly large component of utility expenses,
28 sound environmental stewardship has economic implications as well. Thus, for both

¹Utah Code Section 54-4-28. Merger, consolidation, or combination. No public utility shall combine, merge nor consolidate with another public utility engaged in the same general line of business in this state, without the consent and approval of the Public Utilities Commission, which shall be granted only after investigation and hearing and finding that such proposed merger, consolidation or combination is in the public interest.

1 environmental and economic reasons the merger's effects on the company's environmental
2 performance has a bearing on the public interest.

3
4 Q. What topics do you review in your testimony?

5 A. My testimony addresses the impacts that the merger is likely to have on the following areas
6 relating to the environment: renewable resources, environmental process, energy
7 efficiency and several other issues including distributed generation, regional haze and
8 climate change.

9
10 Q. Please summarize your conclusions.

11 A. I believe that in the areas of renewable energy and environmental process the merger will
12 improve PacifiCorp's environmental performance. In the areas of energy efficiency,
13 distributed generation, regional haze and climate change, environmental performance will
14 at least be maintained and may improve. Taken as a whole, I think the merger will
15 improve PacifiCorp's environmental performance and, with respect to the environment, is
16 in the public interest.

17
18
19 **II. RENEWABLE RESOURCES**

20
21 Q. Why should the Commission care about renewable resources and the impacts the merger
22 may have on their development?

23 A. Compared to fossil-fuel generation, renewable resources have much lower environmental
24 impacts. In Utah, for example, fossil fuel-fired electric power plants are responsible for
25 roughly 30% of SO₂ emissions and 40% of NO_x emissions, pollutants that contribute to
26 visibility degradation and public health problems. Similarly, fossil fuel-fired power plants
27 are responsible for over half the state's CO₂ emissions, the principal pollutant associated
28 with the risk of global climate change. Renewable resources can help reduce emissions of
29 these pollutants at a reasonable cost, particularly in light of prior, and expected future,
30 price declines.

1 Renewable resources also help reduce risk. Renewables have no fuel costs and thus
2 reduce the economic risks associated with rising fossil fuel prices. In addition, because
3 they reduce environmental impacts, they also protect against the risk of higher electric rates
4 resulting from more stringent future environmental regulations. Finally, because of their
5 modular nature, power suppliers can develop renewable capacity when they need it, thus
6 reducing the risks of overbuilding if demand forecasts are inaccurate.

7
8 Q. What is PacifiCorp currently doing with respect to renewable energy?

9 A. With respect to projects serving Utah customers, PacifiCorp's most significant renewable
10 energy activity is its participation in the Wyoming Wind Energy Project. The Wyoming
11 wind energy site is located at Foote Creek Rim, between Laramie and Rawlins. Under
12 current plans the site will be home to 69 wind turbines capable of generating 41 MW of
13 electricity. Of this 41 MW, PacifiCorp will own 80%, or approximately 33 MW. A
14 portion of this 33 MW will be designated to serve Utah customers.

15 In addition to its wind power activities, PacifiCorp owns the 24-megawatt Blundell
16 geothermal plant in Utah and is a participant in the Solar Two Project that has successfully
17 demonstrated the feasibility of molten salt storage in conjunction with central receiver solar
18 generation. PacifiCorp also has smaller solar photovoltaic energy projects in Oregon,
19 Wyoming and Utah.

20
21 Q. What new commitments toward renewable resources will ScottishPower make?

22 A. According to Alan Richardson's direct testimony, within five years of the approval of the
23 merger, ScottishPower would commit PacifiCorp to develop an additional 50 MW of
24 renewable resources (wind, solar, geothermal).

25 In addition, ScottishPower would commit PacifiCorp to file an application for a
26 "green resource tariff." This tariff would give those customers who wish to consume more
27 renewable energy than is in the company's base resource mix the opportunity to purchase
28 additional amounts of renewable energy, at a small premium. ScottishPower has also

1 committed PacifiCorp to evaluate the possibility of expanding its Blundell geothermal
2 plant.²

3
4 Q. How do you view ScottishPower's commitment to develop an additional 50 MW of
5 renewable resources?

6 A. I think it is a very positive step. While it is true that, even with this commitment, non-
7 hydro renewable resources will still make up only about 1% of PacifiCorp's capacity base,
8 integrating an additional 50 MW of clean renewable energy into the PacifiCorp system will
9 allow the company to continue gaining experience with these technologies. Moreover, the
10 additional renewable resources will help reduce the environmental impacts of PacifiCorp's
11 operations. When one considers that renewable resources remain somewhat more
12 expensive than conventional resources, and that additional renewable resources are likely to
13 be developed through the proposed green pricing tariff, it seems that the size and the timing
14 of the commitment — i.e. 50 MW over five years — are reasonable.

15
16 Q. Is the commitment to an additional 50 MW of resources economically responsible?

17 A. Yes. PacifiCorp relies heavily on fossil fuel-fired resources. Diversifying its resource mix
18 by investing in additional renewable resources will help reduce the potential risks to
19 PacifiCorp and its customers of rising fuel prices or stricter environmental regulations. In
20 addition, the renewable resources selected for acquisition will be evaluated in the integrated
21 resource planning process. This process will help ensure that the resources ultimately
22 selected provide the most value to PacifiCorp's customers and its electric system. Finally,
23 the five-year phased-in approach for acquiring these resources across the entire system will
24 reduce the total net present value expense for Utah customers and also give the company
25 time to adjust its plans in response to possible changes in the relative costs and benefits of
26 various types of renewable energy resources.

27

²For an outline of ScottishPower's renewable energy commitments see Direct Testimony of Alan V. Richardson,
Docket No. 98-2035-04, p.14, lines 9-20.

1 Q. You mentioned that if the merger is approved ScottishPower would commit PacifiCorp to
2 file a "green resource tariff" within 60 days. Could you briefly describe how a green
3 resource tariff would work?

4 A. A green resource tariff would provide customers with the choice of purchasing a clean,
5 renewable energy product. The idea is that those customers interested in consuming more
6 renewable energy than is provided in the base resource mix would pay a small premium in
7 their electric bills to account for the incremental costs of renewable resources above
8 conventional resources. As customers choose to purchase the renewable energy product,
9 the company would acquire renewable resources to meet the demand.

10
11 Q. How do you view ScottishPower's commitment to offer a green resource tariff?

12 A. Again, I think this is a positive proposal. According to Alan Richardson's testimony the
13 renewable resources acquired through the green pricing tariff would be in addition to the 50
14 MW commitment described above. Thus the green resource tariff will lead to increased
15 renewable energy development by the company. Based on the LAW Fund's experience
16 with green tariffs in Colorado, the amount of renewable resources developed through such
17 programs can be significant. For example, in Colorado a number of utilities are developing
18 wind energy projects using green tariffs. The wind power sells at a premium of roughly
19 2.5 cents more per kWh. In the two years that the programs have been in operation, over
20 10,000 residential customers, 120 businesses and more than a dozen governmental entities
21 have subscribed to the program, leading to the development of roughly 20 MW of wind
22 capacity.

23

24

25 **III. ENVIRONMENTAL PROCESS**

26

27 Q. One of the areas you identified as being an issue associated with the merger was
28 environmental process. What do mean by that term?

29 A. By environmental process I mean the process by which PacifiCorp communicates with
30 citizens and organizations interested in promoting increased environmental quality.

31

- 1 Q. How would you characterize PacifiCorp's past communication with the environmental
2 community?
- 3 A. For the most part, I think the communication has been good. For example, in the RAMMP
4 process PacifiCorp convenes a public advisory group to gather outside input on resource
5 planning issues. The LAW Fund and other environmental groups have participated in these
6 advisory groups, and PacifiCorp has generally been responsive to the concerns raised by
7 the environmental community. The company used a similar process - referred to as the
8 DSM collaborative - to take input on the design and implementation of its energy efficiency
9 programs.
- 10
- 11 Q. What process does ScottishPower propose to communicate with the environmental
12 community?
- 13 A. ScottishPower commits in its testimonies to develop a process to gather outside input on
14 environmental matters, such as the establishment of an Environmental Forum.³
15 ScottishPower uses this type of system in the UK. In the UK, the Environmental Forum
16 consists of key ScottishPower decision makers and leading members of the environmental
17 community and serves as an advisory body that ensures that the company's approach to
18 environmental issues is relevant to a wide stakeholder base.
- 19
- 20 Q. Would the establishment of an Environmental Forum improve the current situation?
- 21 A. Yes, I think the establishment of an Environmental Forum would be a valuable addition to
22 the way PacifiCorp communicates with and responds to the environmental community.
23 Although the RAMPP public advisory group and DSM Collaborative are useful in raising
24 and addressing environmental issues, at times it is our sense that these forums have been
25 somewhat removed from the strategic business decisions being made by upper
26 management. For the environmental community, developing relationships and channels to
27 communicate ideas at the level in the company where strategic business decisions are made
28 is important. An Environmental Forum, similar to that used in the UK, seems well suited
29 to developing these types of relationships and elevating environmental issues to high levels
30 within the company.

³See Direct Testimony of Alan V. Richardson, Docket No. 98-2035-04, p.14, lines 4-5.

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Q. Are there benefits for customers and shareholders due to this type of improved communication?

A. Yes. Environmental costs are a significant impact for most utilities. They can be particularly problematic if they arise suddenly without an opportunity for planning. By identifying potential environmental problems early, improved communications with the environmental community can reduce the risk of these unforeseen costs. Moreover, improved communication can shift decision making away from adversarial approaches and toward a more collaborative decision making process which can lead to more innovative and cost-effective solutions.

IV. ENERGY EFFICIENCY

Q. Energy Efficiency, often referred to as Demand Side Resources (DSR), is another topic you wanted to address. Why should the Commission care about the impacts the merger will have on energy efficiency?

A. PacifiCorp's experience with DSR in Utah has shown that energy efficiency investments can meet growing electricity demands at lower cost than conventional supply-side resources, with virtually no adverse environmental impacts. In addition, like renewable resources, energy efficiency reduces the reliance on fossil fuels and thus has the added benefit of reducing the risk that rising fossil fuel prices or stricter environmental regulations will raise electricity costs.

Q. What is PacifiCorp currently doing with respect to energy efficiency?

A. PacifiCorp currently acquires cost-effective DSR identified through its RAMPP process. As a result of the RAMPP-5 analysis, the company committed to acquiring 5-7 MWa of DSR in Utah in 1998 and an additional 5-7 MWa in 1999.⁴

Q. What does ScottishPower propose with respect to DSR?

⁴ See RAMPP-5 Report, December 1997, pp. 146-147.

1 A. In response to the LAW Fund's discovery request LWF1-3(b)(4), ScottishPower has said
2 that they plan to maintain PacifiCorp's policy of acquiring cost-effective DSR identified in
3 the RAMPP process. This discovery response is attached as exhibit JN-2.
4

5 Q. How does the LAW Fund feel about ScottishPower maintaining the status quo?

6 A. In general, maintaining the status quo on energy efficiency is acceptable. We feel that the
7 RAMPP process — where the costs and benefits of DSR can be evaluated against those of
8 other resource types — is a proper forum for identifying the appropriate level of DSR to
9 acquire.

10
11
12 **V. OTHER ISSUES: DISTRIBUTED GENERATION, REGIONAL HAZE AND**
13 **CLIMATE CHANGE**

14
15 Q. Do you have other issues you would like to address?

16 A. Yes. I'd like to briefly discuss some issues surrounding distributed generation, regional
17 haze and global climate change.
18

19 **A. Distributed Generation**

20
21 Q. Can you please give a definition of distributed generation?

22 A. Yes. By distributed generation I mean small, modular generation sited near distribution
23 facilities or customer load centers that benefit the electric system, specific customers, or
24 both.
25

26 Q. Why is distributed generation relevant in this case?

27 A. One of the major benefits ScottishPower claims will result from the merger is increased
28 electric system performance and reliability. Indeed, as part of the merger, ScottishPower
29 has committed to meeting a number of network performance standards, and has estimated
30 that roughly \$30 million in capital investment for new infrastructure, primarily investments

1 in the distribution network, will be necessary to meet the standards.⁵ Distributed
2 generation may be a cost-effective means of improving system performance and thus is
3 relevant to the merger.
4

5 Q. Is distributed generation also relevant from an environmental perspective?

6 A. Yes. Many distributed generation technologies such as natural gas-fired micro-turbines,
7 fuel cells and renewable resources have fewer environmental impacts than conventional
8 fossil fuel-fired resources. Incorporating cleaner distributed generation into the electric
9 system may reduce the need for conventional generation and thus yield environmental
10 benefits. In addition, distributed generation can reduce the need for traditional distribution
11 system investments, such as new lines, which have their own environmental impacts.
12

13 Q. Has ScottishPower determined that distributed generation will be part of its plan to increase
14 system reliability?

15 A. No. ScottishPower has yet to conduct a detailed assessment of PacifiCorp's operational
16 activities and, as a result, has not developed a specific portfolio of reliability-enhancing
17 investments for the PacifiCorp system. In response to discovery, however, ScottishPower
18 has indicated that they will explore any commercially efficient means to improve system
19 performance, and that this may include distributed generation.
20

21 Q. In its UK operations, has ScottishPower invested in distributed generation as a means of
22 improving system reliability and power quality?

23 A. No. According to discovery responses from ScottishPower, small-scale distributed
24 resource technologies have not been a source of investment in the UK for improving system
25 reliability and power quality.
26

27 Q. For its UK operations, has ScottishPower conducted any studies or analyses to determine
28 the benefits of distributed generation to its electric system and its customers?

⁵For a description of the performance standards related to reliability and improved network performance see Direct Testimony of Bob Moir, Docket No. 98-2035-04, pp. 5-9. For the estimate of expenditures necessary to meet the network performance standards see Mr. Moir's direct testimony, p. 15, lines 9-22.

1 A. No. According to discovery responses from ScottishPower, no such studies or analyses
2 have been conducted.

3
4 Q. What is PacifiCorp currently doing with respect to distributed generation?

5 A. Like ScottishPower, PacifiCorp has made few, if any, investments in small-scale
6 distributed resource technologies for the purposes of increased system reliability.
7 However, PacifiCorp has conducted several preliminary studies analyzing the benefits
8 distributed generation has to its customers and its electric system and has identified
9 distributed generation as a priority technology area for potential investments and strategic
10 initiatives. PacifiCorp is also involved in marketing the deployment and management of
11 distributed generation resources in concert with power quality related products and services
12 through a subsidiary. In addition, as part of the on-going Public Service Commission
13 Energy Efficiency and Renewable Energy Task Force, the company has expressed a
14 willingness to explore the development of a distributed generation pilot program whose
15 purpose would be to further identify and begin to quantify the benefits of distributed
16 generation to the company's electric system.

17
18 Q. With respect to distributed generation, what should the Commission keep in mind when
19 reviewing the merger?

20 A. As outlined above, neither PacifiCorp or ScottishPower seem to have much experience with
21 actual investments in distributed resource technologies. However, it appears that
22 PacifiCorp is somewhat ahead of ScottishPower when it comes to, at least, assessing the
23 potential benefits of distributed generation for its customers and electric system. If the
24 merger is approved we believe the Commission should encourage the company to build
25 upon the analysis that PacifiCorp has already done and ensure that distributed generation is
26 fully considered in ScottishPower's reliability enhancement plans. In addition, we would
27 expect the merged company to continue to work with other stakeholder groups on
28 distributed resource issues in appropriate Commission-sponsored forums, such as the on-
29 going Energy Efficiency and Renewable Energy Task Force.

30
31

1 **B. Regional Haze**

2

3 Q. Do you think the merger will have a positive impact on PacifiCorp's actions to help solve
4 the problem of regional haze in the Western United States?

5 A. I think it will. Over the past two years, PacifiCorp has been a leader in the Western
6 Regional Air Partnership's (WRAP) attempt to develop a consensus-based plan for solving
7 the regional haze problem in the West.⁶ In the WRAP process, the company has worked
8 closely and in good faith with the environmental community. However, in the several
9 months prior to the merger announcement the company appeared to be less focused. I
10 think this was because management turnover and problems with its overseas ventures had
11 forced the company to pull back and reevaluate its activities, including the resources it was
12 devoting to addressing regional haze. Since the merger was announced, however, the
13 company is again fully engaged. Management for ScottishPower has been briefed on the
14 issue and PacifiCorp's has resumed its leadership role in working with the environmental
15 community to solve this problem. I think this is a positive development for the
16 environment.

17

18 **C. Climate Change**

19

20 Q. Can you describe PacifiCorp's previous activities to address the risk of climate change?

21 A. Yes. As part of the RAMPP process, they have attempted to assess the financial risks to
22 the company of future regulations designed to reduce CO₂ emissions. In addition, as part
23 of the company's Climate Challenge agreement with the U.S. Department of Energy they
24 have agreed to fund at least \$1 million in small-scale carbon offset projects through the
25 year 2000.⁷

26

27 Q. How might the merger affect PacifiCorp's climate change activities?

⁶The WRAP is a collaborative effort of tribal governments, state governments, various federal agencies, and a full range of stakeholder groups that was set up to promote the implementation of Grand Canyon Visibility Transport Commission (GCVTC) recommendations for addressing regional haze on the Colorado Plateau.

⁷ See RAMPP-5 Report, December 1997, p.158.

1 A. I can't say for certain, but ScottishPower's experience with climate change issues in the UK
2 — in particular the company's commitment to work toward meeting the Kyoto protocol's
3 greenhouse gas emission reduction targets in a way that sensibly balances economic
4 concerns — suggests that PacifiCorp's activities with respect to climate change will
5 continue and, perhaps, be improved.
6

7 **VI. CONCLUSIONS**
8

9 Q. Can you please summarize your conclusions regarding the environmental implications of
10 the merger?
11

12 A. Yes. I believe that in several important areas the merger will have positive implications for
13 the company's environmental performance. First, ScottishPower's commitment to 50 MW
14 of new renewable resources and its plan to file a green resource tariff will improve
15 PacifiCorp's environmental performance in the area of renewable resource development.
16 Second, ScottishPower's proposal to develop an Environmental Forum will facilitate
17 communication between senior managers in the company and key environmental leaders
18 and help identify pending environmental problems before they pose significant risks to the
19 company and its customers. Third, by resolving uncertainty concerning the company's
20 priorities and management, the merger should allow PacifiCorp to continue to play a
21 leadership role in addressing the problem of regional haze in the West. Fourth, given the
22 position ScottishPower has taken on the risks of global climate change in the UK,
23 PacifiCorp is likely to at least maintain its climate change activities and may well do more
24 to address this issue.

25 Although the merger is unlikely to lead to an increased acquisition of energy
26 efficiency resources, the merged company will continue its policy of investing in cost-
27 effective demand side resources. Finally, although an initial assessment suggests that
28 PacifiCorp may be further along than ScottishPower when it comes to evaluating the
29 benefits of distributed generation to its electric system, if ScottishPower builds upon
30 PacifiCorp's prior work in this area, and is willing to fully evaluate distributed generation
31 as part of the company's overall portfolio of system performance-enhancing investments,

1 the merger could lead to the increased deployment of environmentally friendly distributed
2 generation technologies.

3 All told, I believe that, with respect to environmental performance, the merger is in
4 the public interest.

5

6 Q. Does this conclude your testimony?

7 A. Yes.

Description of the Environmental Organizations

The **Grand Canyon Trust** is dedicated to the conservation of the natural and cultural resources on the Colorado Plateau. The Trust advocates an ecologically responsible and sustainable balance between resource use and preservation, along with the protection of areas of beauty and solitude. Headquartered in Flagstaff, Arizona, the Trust has two Utah offices, one in St. George and one in Moab. The Trust has approximately 4,500 members nationwide and approximately 325 members in Utah.

The **Land and Water Fund of the Rockies (LAW Fund)** is a regional non-profit environmental law center serving the Rocky Mountain states. The LAW Fund's Energy Project promotes energy efficiency, renewable resources and other environmentally sound energy options in the Rocky Mountain and Desert Southwest regions through selective interventions in regulatory and administrative proceedings.

The **Southern Utah Wilderness Alliance (SUWA)** is a non-profit organization under 501(c)(3) of the Federal Tax Code. The mission of SUWA is the preservation of the outstanding wildlands at the heart of the Colorado Plateau, and the management of these lands in their natural state for the benefit of all Americans. SUWA has approximately 18,000 members, 9,000 of whom live in Utah.

The **Wasatch Clean Air Coalition** is valley-wide organization devoted to reducing regional air pollution through education and selective regulatory interventions.

PUBLIC SERVICE COMMISSION OF UTAH

Docket No. 98-2035-04

First Discovery Request of The Land and Water Fund to ScottishPower

LWF1-3. On page 13, lines 24-25 of Alan Richardson's Direct Testimony, he commits to "support and maintain PacifiCorp's current and committed focus on environmental programs". In regard to PacifiCorp's existing environmental programs, please respond to our requests in the following areas:

a. Resource Planning: PacifiCorp currently is engaged in an extensive integrated resource planning (IRP) process that results in the filing of detailed plans with the Utah PSC. In regard to this resource planning process, please respond to the following questions:

- (1) Do PacifiCorp and Scottish Power intend to maintain the IRP process in its current form?
- (2) If not, what changes are being contemplated?
- (3) Will the merged company commit to maintaining the IRP process in some reasonably similar form until retail competition is implemented in Utah? If not, why not?
- (4) Will PacifiCorp's planning process remain independent or will various resource planning functions be transferred to Scotland?
- (5) If so, what functions would be transferred?

b. DSM: PacifiCorp is supporting energy efficiency programs in both Utah and Wyoming that, in our view, are highly cost-effective means of reducing energy demands, avoiding the need for new power plants, lowering pollutant emissions, and improving the competitiveness of businesses. In regard to PacifiCorp's DSM efforts, please respond to the following questions:

- (1) Do PacifiCorp and Scottish Power intend to continue investing in the cost-effective energy efficiency programs identified in the IRP process?
- (2) Will the merged company rely on the existing program designs or are changes being contemplated?
- (3) If so, what changes are being contemplated?
- (4) Will the merged company commit to maintaining its investments in the cost-effective energy efficiency efforts identified by the IRP process until retail competition is implemented in Utah? If not, why not?

c. **Renewable Resources:** PacifiCorp has recently completed the installation of a wind farm in Arlington Wyoming. In regard to this wind farm, please answer the following questions:

- (1) Is this wind farm in PacifiCorp's Utah rate base (or in their revenue requirement calculation)?
- (2) If not, how are the costs associated with the wind farm treated?
- (3) If the wind farm is in the revenue requirement, is the merged company willing to leave the cost recovery treatment as it is?
- (4) To the extent PacifiCorp sells wind energy to other utilities (like Public Service Company of Colorado) or to retail customers in a competitive environment, would PacifiCorp agree to ensure that new turbines are built (to serve this new demand) and leave the existing turbines in the Utah revenue requirement?

d. **Regional Haze:** Over the past two years, PacifiCorp has played a leadership role in developing a consensual regional approach for resolving regional haze issues. Does the merged company foresee any changes in PacifiCorp's approach to the regional haze problem? If so, what changes are contemplated?

Response:

(a)

1. Yes. Standards and Guidelines for IRP were set by Utah Commission order in Docket 90-2035-01. Future IRPs will adhere to these guidelines unless and until they are revised. The public advisory group to the IRP process will be examining during 1999 the current structure of the IRP and its relevance in light of changes in the utility industry. It is premature to determine whether this examination will result in suggestions for changes to the IRP. Any proposed changes to the IRP standards and guidelines would be filed with the Utah Commission for approval prior to implementation.
2. Please see ScottishPower's response to Utah LWF Data Request 1.3(a)(1).
3. Please see ScottishPower's response to Utah LWF Data Request 1.3(a)(1).
4. The planning process will remain within PacifiCorp.
5. Please see ScottishPower's response to Utah LWF Data Request 1.3(a)(4).

(b)

1. Yes.
2. DSM programs are continually evaluated and monitored to assure their effectiveness. Any changes to existing programs or introduction of new programs would be filed with the Commission for approval prior to implementation.
3. Please see ScottishPower's response to Utah LWF Data Request 1.3(b)(2).
4. The IRP Standards and Guidelines require that the IRP consider both demand side and supply side alternatives on a consistent and comparable basis. The Company will continue to develop the IRP in accordance with these guidelines and will achieve the level of DSM identified in the process until such time as the Standards and Guidelines are modified by the Utah Commission.

(c)

1. The Wyoming wind farm was placed in service in 1998. Current rates in Utah are based on a 1997 test period. Therefore, current Utah prices do not include recovery of the cost of the wind farm. When rates are reset on a 1998 or later test period, the wind farm will be included in Utah rate base and reflected in revenue requirement calculations.
2. Please see ScottishPower's response to Utah LWF Data Request 1.3 (c) (1).
3. Please see ScottishPower's response to Utah LWF Data Request 1.3 (c) (1).
4. ScottishPower reiterates that it has made a commitment to both new renewables (50 MW) and additional new renewables to meet the demand of a Green tariff. These commitments signal ScottishPower's interest in developing new renewable generation.

(d) ScottishPower has not studied this issue in detail but supports PacifiCorp's general approach to the regional haze issue.

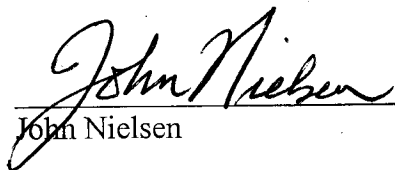
BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF UTAH

* * *

In the Matter of the Application of PacifiCorp)
and Scottish Power plc for an Order Approving)
the Issuance of PacifiCorp Common Stock) Docket No. 98-2035-04

AFFIDAVIT OF JOHN NIELSEN

COMES NOW the Affiant, John Nielsen, of proper age and duly sworn, and states that the attached Testimony and Exhibits were prepared by him or under his supervision and control, and that the facts asserted in the foregoing Testimony are true and correct to the best of his knowledge and belief and would be the same if given orally under oath.

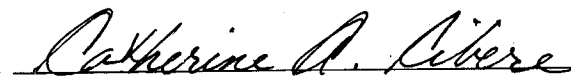


John Nielsen

STATE OF COLORADO)
) ss.
COUNTY OF BOULDER)

SUBSCRIBED AND SWORN to before me this 17th day of June 1999,
by Catherine A. Cibere. Witness my hand and official seal.

My commission expires: 10/30/2001



Notary Public

CERTIFICATE OF SERVICE

I hereby certify that the original and fifteen (15) copies of the DIRECT TESTIMONY OF JOHN NIELSEN ON BEHALF OF THE LAND AND WATER FUND OF THE ROCKIES, THE SOUTHERN UTAH WILDERNESS ALLIANCE, THE WASATCH CLEAN AIR COALITION & THE GRAND CANYON TRUST were sent via Federal Express to Stephen F. Mecham, Chairman, Public Service Commission of Utah, 160 East 300 South, Salt Lake City, Utah 84145, on this 17th day of June, 1999, and a true and correct copy was sent by U.S. mail, first-class and postage prepaid, to the following persons:

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