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February 6, 2006

Via Electronic and US Mail

Oregon Public Utility Commission

Attn: Filing Center

P.O. Box 2148

Salem OR 97308-2148

Re: In the Matter of PACIFIC POWER & LIGHT Request for a
General Rate Increase in the Company's Oregon Annual Revenues
Docket No. UE 170

Dear Filing Center:

Enclosed please find an original and six copies of the Rebuttal Testimony of Kathryn E. Iverson and Edward Bartell on behalf of the Klamath Off-Project Water Users, Inc. in the above-captioned docket.

Please return one file-stamped copy of each document in the self-addressed, stamped envelope provided. Thank you for your assistance.

Sincerely,

/s/ Christian Griffen

Christian W. Griffen

Enclosures

cc: Service List

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the foregoing Rebuttal
Testimony of Kathryn E. Iverson and Edward Bartell on behalf of the Klamath Off-Project
Water Users, Inc., upon the parties on the service list, shown below, by causing the same to be
served by U.S. Mail , postage-prepaid, through the U.S. Mail, and/or via email to those parties
with an email address.

Dated at Portland, Oregon, this 6th day of February, 2006.

/s/ Christian Griffen
Christian W. Griffen

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**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of)	
)	
PACIFIC POWER & LIGHT (dba PacifiCorp))	UE 170
)	
Request for a General Rate Increase in the Company's)	
Oregon Annual Revenues.)	

Rebuttal Testimony of
Edward Bartell

On Behalf of
Klamath Off-Project Water Users, Inc.

February 6, 2006

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

2 A My name is Edward Bartell. My address is 30474 Sprague River Rd. Sprague River,
3 Oregon 97639.

4 **Q ARE YOU THE SAME EDWARD BARTELL THAT SUBMITTED OPENING**
5 **TESTIMONY ON BEHALF OF THE KLAMATH OFF-PROJECT WATER USERS,**
6 **INC. (“KOPWU”) IN UE 170?**

7 A Yes, I am.

8 **Q PACIFICORP’S WITNESS MARK SMITH TESTIFIES THAT THE COMPANY**
9 **RECEIVES NO VALUE FROM IRRIGATION PUMPING IN THE UPPER KLAMATH**
10 **RIVER BASIN. HAS MR. SMITH PROVIDED ANY EVIDENCE TO SUPPORT THIS**
11 **CONCLUSION?**

12 A No. Mr. Smith provides no evidence to support his assertion, and Mr. Smith
13 apparently has not performed any analyses that would be necessary to support this
14 conclusion. Attached as Exhibit KOPWU/401 are PacifiCorp responses to data
15 requests in which KOPWU asked PacifiCorp to provide all documents and analyses
16 that Mr. Smith performed regarding: 1) the “value” provided by Off-Project irrigators;
17 2) the flow of water from Off-Project lands; or 3) the assumptions that Mr. Smith
18 testified would be necessary to make to determine the value that Off-Project irrigation
19 pumping is providing. With respect to each of these issues, PacifiCorp responded
20 that “[n]o such analyses have been performed.” KOPWU/401, Bartell/1-3.

1 **Q PACIFICORP’S WITNESS AND THE WITNESS FOR THE OREGON NATURAL**
2 **RESOURCES COUNCIL (“ONRC”), JAMES MCCARTHY, TESTIFIED THAT**
3 **OVERALL FLOWS ARE NOT INCREASING IN THE KLAMATH RIVER. DOES**
4 **KOPWU BELIEVE THAT OVERALL KLAMATH FLOWS ARE RELEVANT TO THE**
5 **ISSUES IN THIS PROCEEDING?**

6 **A** No. The question that is relevant to KOPWU’s rates in this proceeding is the quantity
7 and value of the water that is provided to PacifiCorp hydroelectric facilities by those
8 persons or entities served under the Off-Project Contract. As I stated in my opening
9 testimony, there are many landowners that remove water from the Klamath River
10 system via gravity diversions and have a legal right to do so. Gravity diversion does
11 not rely on the price for electric service from PacifiCorp for irrigation pumping, and
12 gravity diverters will continue to divert with or without the current power rates. Finally,
13 I think that these witnesses’ statements regarding flow in the Klamath River are
14 misleading because they do not properly account for historical changes in flow by
15 water bodies that are now drained. In addition, like PacifiCorp, ONRC did not provide
16 with its testimony any studies that ONRC performed to support its assertions.

17 **Q ONRC’S WITNESS MENTIONS DECLINING FLOW IN THE KLAMATH RIVER. TO**
18 **YOUR KNOWLEDGE, IS THERE ANY ACTUAL MEASUREMENT OF “NATURAL**
19 **FLOW” IN THE KLAMATH RIVER PRIOR TO DEVELOPMENT?**

20 **A** I am unaware of any measured “natural flow” of the Klamath River. Some people
21 mistakenly fail to account for the drainage of two major lakes when considering flow
22 in the Klamath River. Flow during the early 1900s was significantly supplemented as
23 a result of this drainage done by the Bureau of Reclamation (“Reclamation”) and
24 private parties.

1 Prior to irrigation development, the Lost River historically flowed into Tule
2 Lake, which was a closed basin where all water entering it left by evaporating,
3 entering the ground, or disappearing into the lava beds on the far southern end of the
4 lake (on or near the present-day site of Lava Beds National Monument).
5 KOPWU/402, Bartell/5-7.

6 Water from the Klamath River also flowed into the Lost River and into Tule
7 Lake during certain times of the year. Together, the combined flow of the Lost River
8 and the Klamath River fed two major lakes and marshes that had a combined surface
9 area of approximately 184,300 acres according to the 1903-1912 project history.
10 KOPWU/402, Bartell/3. In a speech to the California Legislature in 1905, then
11 California Governor George C. Pardee noted that draining these two major lakes
12 would increase flow in the Klamath River. KOPWU/403, Bartell/1.

13 As a result of activities within the present day Klamath Reclamation Project,
14 flow into this 184,300 acre water body stopped and was diverted to the Klamath River
15 to accomplish drainage. Major activities relating to this drainage include:

16 A) 1889 - Lost River Slough was closed, preventing Klamath River from
17 entering the Lost River. KOPWU/402, Bartell/5.

18 B) 1912 - Lost River Diversion Dam and Diversion Channel was constructed,
19 allowing the diversion of the Lost River into the Klamath River.
20 KOPWU/402, Bartell/9. Various enlargements were constructed since
21 1912.

22 C) 1912 - The railroad grade was constructed across the Klamath Straits
23 entering Lower Klamath Lake and a control structure was put in place,
24 allowing control of water entering Lower Klamath Lake. Id.

25 D) 1917 - The control structure at the Klamath Straits was closed indefinitely,
26 causing Lower Klamath Lake to go dry.

1 The above actions caused water that would have otherwise entered Lower
2 Klamath Lake, Tule Lake, and Marshes to instead remain in the Klamath River.
3 Relatively little irrigation diversion took place during this period because the lands to
4 be irrigated were being drained.

5 This period of one-time unnaturally high flows related to drainage in the
6 Klamath Project should not be considered “natural,” and any discussion of “natural”
7 flows on the Klamath River must be put in the proper historical context.

8 **Q PACIFICORP WITNESSES QUESTION THE VALUE OF STRUCTURES WITHIN**
9 **THE KLAMATH RECLAMATION PROJECT. SPECIFICALLY, DOES THE LINK**
10 **RIVER DAM PROVIDE VALUE TO PACIFICORP?**

11 **A** Yes it does. Link River Dam helps capture high flows that are beyond PacifiCorp’s
12 Generation Capacity and stores them for later release. Link River is the uppermost
13 portion of the Klamath River directly below Upper Klamath Lake. Some sources refer
14 to this portion of Klamath River as Link River. Other sources call it the Klamath River.

15 Historic flows going out of Upper Klamath Lake were so minimal prior to
16 agricultural development in the Klamath Basin that the Link River would go
17 completely dry when there was a strong south wind, shifting the elevation of Upper
18 Klamath Lake. Attached as Exhibit KOPWU/404 is a photo from the Klamath County
19 Museum that shows the dry bed of the Link River in 1918, prior to construction of the
20 Link River Dam. This fact was very well documented in the work of A.S. Gatschet, a
21 scientist whose work with the Klamath Indians was so extensive that he developed a
22 Klamath-English Dictionary. Attached as Exhibit KOPWU/405 is an excerpt from Mr.
23 Gatschet’s work, *The Klamath Indians of Southwestern Oregon*, which was published
24 by the Government Printing Office in 1890. Pages Bartell/3 (lines 4-6) and Bartell/6
25 (note 94, 4-6) of this Exhibit describe the phenomenon of the flow of the Link River

1 stopping in the face of a strong south wind. Since the flow, if any, that left Upper
2 Klamath Lake prior to the construction of the Link River Dam quite literally depended
3 on which way the wind was blowing, the dam clearly continues to provide value to
4 PacifiCorp.

5 **Q DO OTHER STRUCTURES WITHIN THE KLAMATH PROJECT HELP DELIVER**
6 **OFF-PROJECT WATER TO PACIFICORP?**

7 A Yes. The Lost River Diversion Dam and the Lost River Diversion Channel Divert a
8 mix of On- and Off-Project water into the Klamath System. Without these structures,
9 water would go to Tule Lake and never enter the Klamath River system, as noted
10 above. When this water is needed by the Klamath Project, the flow from the Lost
11 River system lessens the need for diversions from the Klamath River. I have spent
12 quite a bit of time reviewing Reclamation's flow data of Lost River Water passing
13 Harpold Dam and entering the Lost River Diversion Channel.¹

14 I have personally witnessed substantial flow regularly passing the Harpold
15 Dam during the Irrigation Season. I have also personally seen Off-Project water and
16 flow from springs entering Lost River below Harpold dam. All of this water is either
17 diverted to the Klamath River or used in the Klamath Project, lessening the need to
18 divert water from Upper Klamath Lake or the Klamath River. Attached as Exhibit
19 KOPWU/406 are newspaper articles from the Klamath Falls Herald and News dated
20 August 30, 2000, and September 5, 2000, which also document substantial flow from
21 releases of about 40,000 acre feet out of a Reclamation dam on the Lost River
22 system, combined with additional runoff entering the Klamath River during the

¹ Flow Records on the Lost River at Harpold and the Lost River Diversion Channel can be
viewed at <http://www.usbr.gov/mp/kbao/operations/water/index.html>.

1 irrigation season, in the year 2000. The Sheepy Ridge Tunnel and Straits Drain also
2 contribute water to the Klamath System.

3 **Q ONRC SUBMITTED SUBSTANTIAL TESTIMONY REGARDING THE CURRENT**
4 **RATES FOR KLAMATH IRRIGATION CUSTOMERS UNDER THE AGREEMENTS**
5 **SIGNED IN 1956. DO YOU BELIEVE THAT THE COMMISSION SHOULD RELY**
6 **ON THIS TESTIMONY?**

7 A No. Attached as Exhibit KOPWU/407 are ONRC's responses to KOPWU's data
8 requests regarding Mr. McCarthy's testimony.² These responses reflect that ONRC
9 did not perform any independent analysis regarding the issues in this proceeding and
10 that, despite Mr. McCarthy's extensive testimony on the rates for Klamath irrigation
11 customers, he does not have a background in utility ratemaking. Furthermore,
12 ONRC's testimony relies heavily on statements from the report of William Jaeger that
13 was provided as Exhibit ONRC/103. The Jaeger report is unreliable for reasons I
14 explain below. KOPWU suggests that the Commission give no weight to the
15 testimony provided by ONRC.

16 **Q ARE YOU FAMILIAR WITH THE JAEGER REPORT THAT ONRC INCLUDED AS**
17 **EXHIBIT ONRC/103?**

18 A Yes. I have read Mr. Jaeger's report, and I personally met with Mr. Jaeger in 2005
19 and discussed his conclusions.

² KOPWU reformatted the document that it received from ONRC in order to match each data request with the ONRC's response, but no substantive changes were made.

1 **Q MR. JAEGER STATES IN HIS REPORT THAT LAND MUST BE LEVEL IN ORDER**
2 **TO FLOOD IRRIGATE AND UN-LEVEL LAND CANNOT BE CONVERTED FROM**
3 **SPRINKLER TO FLOOD IRRIGATION. IS THIS STATEMENT TRUE?**

4 A No. Mr. Jaeger was mistaken in both his report and in the understanding of flood
5 irrigation that he communicated to me in our discussion that only level ground could
6 be flood irrigated. Unlevel and sloping ground is routinely flood irrigated throughout
7 the Klamath Basin. Unlevel ground is irrigated by putting earthen check dams across
8 low areas in fields to spread water to higher areas.

9 To my knowledge, virtually all the lands that are currently irrigated with surface
10 water could be flood irrigated in the Off-Project Area in the Klamath Basin. In fact, to
11 the extent that sprinkler irrigation exists on lands irrigated with surface water, it is
12 generally a result of a conversion from flood irrigation. To assert that landowners
13 could not convert this land back to flood irrigation is nonsensical.

14 This distinction is critical because those farmers using surface water will move
15 away from more efficient irrigation methods, causing additional use of surface water.
16 Those using deep water wells will likely stop irrigating using deep water wells or
17 switch to irrigation using surface water. Stopping the use of wells would have a
18 dramatic detrimental effect on streamflow, as noted in the opening testimony and
19 report of Lee Rozaklis. KOPWU/200-202. There are lands that currently are sprinkler
20 irrigated with water from wells, and some of these lands could not easily be converted
21 from sprinkler to flood irrigation, making the loss of well water more dramatic.

22 **Q DID MR. JAEGER CONSIDER THAT WELLS MAY BE HAVING A POSITIVE**
23 **EFFECT ON STREAMFLOW?**

24 A No. Mr. Jaeger did not consider the positive effects of wells on streamflow or the
25 potential negative effects on streamflow if wells were no longer used. He made no

1 effort to distinguish surface water from well water or consider the differing effects on
2 streamflow.

3 **Q ARE THERE ADDITIONAL PROBLEMS WITH THE JAEGER REPORT?**

4 A Yes. KOPWU has never considered the Jaeger Report to be of much value because
5 of its simplistic or inaccurate assumptions. Some additional problems include:

6 1) Mr. Jaeger bases his extensive acreage assumptions on a personal
7 communication with Terry Nelson, an employee of the Natural Resource
8 Conservation Service ("NRCS"). ONRC/103, McCarthy/8. I have personally met with
9 Terry Nelson, and I also have compared NRCS' acreage maps with on-the-ground
10 observations in the Sprague River Valley. I found NRCS' land use mapping to have
11 major errors.

12 2) Mr. Jaeger bases his profitability calculations on Klamath County soil
13 mapping utilized by the Assessors Office in taxing land. I serve on the Farm Use
14 Advisory Committee that advises the Klamath County Assessor in his farm use taxing
15 authority. Soil classifications would not be the primary determining factor in
16 profitability if power rates go up. Power use would be the determining factor. As I
17 noted in my direct testimony, there is a very substantial difference in power use
18 between pumping water out of the ground and diverting water out of the river. Given
19 the number of errors and omissions in the Jaeger report, I do not believe that the
20 Commission should rely on its conclusions.

1 **Q. PACIFICORP WITNESS WILLIAM GRIFFITH SUGGESTED ON PAGE 6 OF HIS**
2 **DIRECT TESTIMONY THAT SOME NEW METERING POINTS ON EXISTING**
3 **IRRIGATED LAND SHOULD BE ELIGIBLE FOR COVERAGE UNDER SENATE**
4 **BILL 81 (“SB 81”). DO YOU AGREE THAT NEW METERING POINTS ON**
5 **EXISTING IRRIGATED LAND SHOULD BE COVERED UNDER SB 81?**

6 **A.** Yes. Some landowners are working with PacifiCorp, the Energy Trust of Oregon,
7 NRCS, and the Klamath Soil and Water Conservation District to make their power use
8 more energy efficient. Some of these efficiency improvements may require a new
9 metering point, moving a metering point, or modifying an existing metering point. If
10 landowners who are looking at improving the efficiency of their systems were required
11 to immediately move to Schedule 41 because of energy efficiency improvements, it
12 would strongly discourage energy efficiency improvements.

13 **Q KLAMATH WATER USERS ASSOCIATION WITNESS DONALD SCHOENBECK**
14 **SUGGESTED A RATE SCHEDULE BASED ON COST OF PRODUCTION. HAS**
15 **KOPWU AGREED TO THIS RATE SCHEDULE?**

16 **A** No, KOPWU has not agreed to Mr. Schoenbeck’s proposed rate schedule. KOPWU
17 believes that its members are entitled to the contracted rate in the Off-Project
18 contract. KOPWU’s members feel they are providing a clear, direct, and substantial
19 benefit to PacifiCorp as envisioned under the contract and there is no reason to alter
20 this contracted rate.

21 However, if the Commission provides for a rate other than the contracted rate,
22 KOPWU urges the Commission to take into consideration the value that Off-Project
23 customers provide to the PacifiCorp system and all the difference in the cost to serve
24 Off-Project customers that KOPWU witness Kathryn Iverson has identified.

1 **Q** **DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

2 **A** Yes.

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/401

Klamath Off-Project Water Users, Inc.

February 6, 2006

UE-170/PacifiCorp
February 1, 2006
KOPWU 11th Set Data Request 11.6

KOPWU Data Request 11.6

Please describe and provide all documents and analyses performed by Mr. Smith that refer or relate to the “value” provided by Off-Project irrigators or customers.

Response to KOPWU Data Request 11.6

No such analyses have been performed.

UE-170/PacifiCorp
February 1, 2006
KOPWU 11th Set Data Request 11.8

KOPWU Data Request 11.8

Please describe and provide all analyses that Mr. Smith has performed regarding the flow of water from off-project lands as contemplated in the off-project agreement.

Response to KOPWU Data Request 11.8

No such analyses have been performed.

UE-170/PacifiCorp
February 1, 2006
KOPWU 11th Set Data Request 11.9

KOPWU Data Request 11.9

Please describe and provide all analyses that Mr. Smith has performed regarding each of the “assumptions” he refers to on pages 6-7 of his testimony.

Response to KOPWU Data Request 11.9

No such analyses have been performed.

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/402

Klamath Off-Project Water Users, Inc.

February 6, 2006

DEPARTMENT OF THE INTERIOR.
UNITED STATES RECLAMATION SERVICE.

H I S T O R Y

of the

K L A M A T H P R O J E C T.

Oregon-California.

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From May 1, 1903, to December 31, 1912.

Compiled and written by I. E. Voorhees, Assistant Engineer

E. G. Hopson,

Supervising Engineer.

W. W. Patch,

Project Engineer.

LETTER OF TRANSMITTAL.

Klamath Falls, Oregon, January 29, 1913.

Sir:-

In compliance with the instructions contained in the paragraph on "Project Histories", in circular letter, from the Director, of January 18, 1912; and in conformity with further instructions on the subject, from the Supervising Engineer, in letter of May 13, 1912, I hand you herewith the "History of the Klamath Project", from May 1, 1903, to December 31, 1912.

In the compilation of this history the project files, together with annual and board reports have been freely consulted, in an effort to make this document both complete and authentic.

Very respectfully,

I. S. Voorhees,

Assistant Engineer.

Mr. W. W. Patch,

Project Engineer.

area of 3500 acres, a large proportion of the land being public. The creek, with a discharge varying from 2 second-feet to 6000 second-feet, flows thru a narrow canyon of basaltic rock at the dam site; and a dam 50 feet high would impound approximately 123,000 acre feet. This site is of substantial importance.

Lake Areas. In addition to the lake areas mentioned above as serving for storage reservoirs there are two others, Lower Klamath, and Tule within the project limits, for which reclamation by drainage ^{has} ~~is~~ planned. Of this, more will be said later. Lower Klamath covers an area of 29,400 acres, or including the marginal swamps, an area of 88,300 acres; while Tule Lake covers 96,000 acres of which it ^{has} ~~is~~ hoped ultimately to reclaim 35,000 acres.

Private Canal Systems. When the Reclamation Service began its investigations in the Klamath country, it found the following private canal systems in operation;- The Klamath Falls Irrigation Co., or Ankeny-Henley Canal; The Little Klamath Ditch Co. or Adams Canal; The Van Brimmer System; and the Moore Canal. In addition the Klamath Canal Company's work was underway.

Ankeny-Henley Canal. In 1878 a number of Linkville citizens incorporated under the name of "The Linkville Water Ditch Co." and dug a small ditch heading in Link River about 2 miles above what is now known as Klamath Falls. This ditch had a capacity of about 40 miners inches. the water being used for the irrigation of town lots. In the spring of 1884 William Steele enlarged this ditch and extended it into the Klamath Valley for a distance of 15 miles. For the privilege of enlarging, Mr. Steele gave each ^{member of} the old company



View showing a glimpse of Tule Lake, Oregon, looking toward Bloody Point.
June 9, 1905.

TULE LAKE LANDS.

Tule Lake, originally called Rhett Lake is a circular body of water, covering about 96,000 acres in Klamath County, Oregon, and Siskiyou and Medoc Counties, California, lying for the most part south of the state line. The chief source of water supply for this lake is derived from Lost River which rises in Clear Lake, about 6 miles easterly from Tule Lake, and then flows in a big loop for a distance of about 70 miles, emptying into Tule Lake. Since the construction of Clear Lake Dam, Lost River drains between 600 and 700 square miles, and at times may be subject to floods of short duration, amounting to 10,000 second feet or more. Tradition has it, that in years past the lake occupied a much smaller area, and that the old immigrant road once crossed where the waters of the lake now stand from 12 to 15 feet deep. In 1886, at a time of unusually high water the Klamath River broke through its banks at a point about 3 miles south of Klamath Falls, and for a large part of the following year, diverted a heavy flow of water southeasterly through Lost River Slough into Lost River and thence into Tule Lake. This same thing has probably happened in earlier times, and may be largely responsible for the material increase in the size of Tule Lake. In 1889, J. Frank Adams and other large land holders along the northerly boundary of the lake, becoming alarmed for the safety of their ranches and buildings, joined forces and built a dike across the upper end of the Lost River Slough, which has since been effective in preventing further inflow from Klamath River. The lands along the

northerly margin of the lake are of excellent fertility, and, as late as the 80's, farms were established and crops raised on land now entirely submerged and out in the lake from one to two miles.

Indian legends are to the effect that Tule Lake formerly had a submarine outlet where there was a monstrous whirlpool. Observations of the white man have not borne this out, but we do know that a small outflow occurs into the Modoc lava beds at the southerly end of the lake. These lava beds constitute the entire southern shore of Tule Lake, and extend for 60 to 80 miles to the southward. The lava rock is especially porous, and there are many great cracks of unknown depth, filled with masses of loose lava rock and ash. Near the lake shore these cracks are filled with a mass of silt, sand, shells, etc., the top line of which appears to slope downward from high water line, on a 15% or 20% slope.

Tule Lake Outlets. There were a number of places along the southern shore line of the lake which appeared favorable for developing possible outlets. Of these, two, more promising than the rest, were selected to be opened up, and holes, one about 20' x 30' and the other 16' x 100', were blasted out of the rock to a depth of 18' or so. Back from the bottom of each of these holes, tunnels were driven 4' wide, 6' high, to a distance of from 10 to 18 feet. These holes were then connected with the main body of the lake by a deep channel, these latter being extended and deepened from time to time as the waters of the lake receded. This development work cost in the neighborhood of \$10,000, the major portion of it being done between October 1909 and June 1910 and has resulted in an outflow of about 30 second feet continuing until the summer of 1912, when the lake became too low

and further work on the outlets was deemed inexpedient.

Preliminary Plans. From the first inception of the project, one of the most attractive features of the general scheme has been the reclamation of the Sule Lake lands. As cited on page the legislatures of Oregon and California, by special acts relinquished to the National Government title to lake lands which might be uncovered by grainage. From the first the plan for the accomplishment of this drainage was the impounding of Lost River headwaters in Clear Lake, and diverting the runoff below by means of a masonry dam at Olene, and connecting channel, into the Klamath River. When the first studies were made, there was practically no hydrographic data on the annual discharge of Lost River, nor was the data on rainfall and evaporation of much value.

Area to be reclaimed. As studies progressed it was realized more and more clearly that the ultimate area which can be reclaimed depends upon the very delicate adjustment between evaporation from the lake surface and the inflow as affected by storage and diversion, it being out of the question to place dependance on subterranean outlets into the lava beds. The original estimates for the drainage of from 45,000 to 50,000 acres were modified in the light of later and more complete data. The questions which had to be determined in order to arrive at the probable reclaimable area were:

1. The amount of average annual evaporation.
2. The effect of storage in Clear Lake as modifying the flow of Lost River.
3. Proper size of a diversion channel from Lost River to Klamath River.

Studies along these lines had been made at various times; but it was not until February 1910 that the matter was



Tule Lake outlet, showing pit
into which water flows and
disappears - August 3, 1908.

general report and estimate for Klamath project.

1910.

January- Clear Lake Dam completed.

April 26. Report of Board (Messrs Hopson and Patch) on construction of Lost River Diversion Channel.

Nov. 6. Agreement with Van Brimmer Ditch Co.

Nov. 28. Report of Board of Army Engineers.

Dec. 16. Contract awarded to W. H. Mason for construction , Lost River Diversion Channel.

Dec. 29. Contract awarded to George C. Clark for construction, Lost River Diversion Works.

1911.

March. Work started on Lost River Diversion Dam and channel.

Aug. 8. Report of Board (Messrs Davis, Hopson and Patch) on construction of Second Unit Laterals.

Aug. 15. Preliminary report on Klamath Marsh Experimental Farm.

1912.

January. Heileman's report on Lower Klamath Marshes.

Feb. 26. Report by Board (Messrs Davis, Hopson, & Patch) on Lower Klamath Marshes.

April. Lost River Diversion Channel completed.

June. Lost River Diversion Dam completed.

Aug. 25. Klamath Straits closed by C.&N.E. Ry. Co.

Sept. 16. Contract for construction, 2nd Unit laterals awarded to Maney Bros. & Co.

Oct. 21 Work begun on 2nd. Unit Laterals.

Dec. 31. Entire project.- 75% completed.

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/403

Klamath Off-Project Water Users, Inc.

February 6, 2006

Excerpt from the First Biennial Message of Governor George C. Pardee to the Legislature of the State of California, pages 25 and 26, (36th Session - 1905), Volume 1, Appendix to the Journals of the Senate and Assembly of the 36th Session of the Legislature of the State of California

Consent to
drain, re-
claim, cul-
tivate

"The other undertaking, one to which legislative attention will doubtless be invited, is likely to prove still more remarkable and important. The Klamath basin, situated partly in California and partly in Oregon, contains several lakes and both overflowed and arid districts. A way has been found so to increase the flow of the Klamath River as to drain two important lakes and reclaim to cultivation the greater part of their areas. To do this the consent of both California and Oregon will be needed.

Lands sold
only to
settlers

"It is proposed that California shall cede to the National Government her interests in the lands which will be laid bare by the lowering of the water in the lakes; but as these lands will be sold only to actual settlers and the proceeds used, together with other funds, to meet the expenses of the undertaking, it would seem that this State can well afford to give its assent if Oregon will do likewise, as it is believed that it will. There are 300,000 acres, two thirds in California and one third in Oregon, which, it is claimed, can thus be reclaimed and irrigated. To accomplish this it will be necessary to draw water from Upper Klamath lakes in Oregon to irrigate lands in California and, likewise,

300,000 ac.
2/3 Calif.
1/3 Oregon

Water source
Oregon

Water source
California.

from Clear Lake--a smaller body of water lying to the east of Rhett Lake, in California--to irrigate lands across the line in Oregon. The different levels of the lakes relative to the areas they are expected to irrigate make necessary this reciprocal arrangement, and it can not be doubted that the two commonwealths ought to cooperate heartily in what is likely to prove so great a common advantage."

Common
advantage

**Before the
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Docket No. UE 170

Exhibit

KOPWU/405

Klamath Off-Project Water Users, Inc.

February 6, 2006

TEXTS OF THE KLAMATH LANGUAGE,
WITH EXPLANATORY NOTES.

THE KLAMATH INDIANS OF OREGON.

BY ALBERT S. GATSCHE.

INTRODUCTION TO THE TEXTS.

The most important and valuable monument of itself which a people can transmit to posterity is a national literature. But to answer the requirements fully, the literature of a people must possess a certain degree of completeness in portraying the national peculiarities. It should embrace not only sketches of contemporaneous history, of national habits, customs, and laws laid down in the native idiom, but we expect from it also a truthful rendering of the spiritual side of national life, of its physical and metaphysical speculations as we find them embodied in its myths, beliefs, superstitions and conjurers' practices, and of speeches and discourses of its representative men held on solemn occasions. The most fragrant flowers in any national literature are certainly the poetic productions, if a full account of their origin and purport is added to make them easily comprehensible.

While cultured nations are constantly engaged in perpetuating the memory of their thoughts and achievements by means of some alphabetic or syllabic system of writing, the uncivilized hunting or fishing tribes possess none, or only the most imperfect means of recording their affairs. All of them possess mythic tales, traditional history, and songs for various incidents of life; not a few are even originators of didactic folklore, of proverbs, and of versified rhythmic poetry. Many of these mental productions are remarkable for artistic beauty, others for a most interesting variety of detail; but all of them will, if collected with accuracy and sound

93, 1. *ká-i spúni vushúk*: the subject of *spúni*, *Ē-ukskni máklaks*, is left out by inadvertence. Some Wascoes wanted to marry into another tribe; for "one Wasco man" stands here for "some men of the Wasco people."

93, 3. 4. *Ampxá'ni*, contraction of *ambuxé'ni* "thither, where the water is", where the waters rush down in a cataract, or in rapids. The rapids of the Columbia River at the Dalles impede navigation.

93, 7. *sasságank i gi!* ye are in peril, when going to the Dalles and being Indians, therefore take care of yourselves! *i* stands for *át*; cf. 64, 10 and *Note*; 90, 13. 14.

93, 7. 9. Instead of *ká-i nū shtinta* may be said also, in this connection, *ká-i nū shanáhole*; instead of *táukt ní gēnt*: *gē'utēni*, *gē'nt a ni*; instead of *Tidshi há'k*: *tidsbák*, *tidsi há gi*.

K'MUKÁMTCHAM AÍSHISHAM TCHÍSH SHASHAPKĒLÉASH.

K'MUKAMTCH ATTEMPTS THE DESTRUCTION OF HIS SON AÍSHISH.

OBTAINED IN THE KLAMATH LAKE DIALECT FROM MINNIE FROBEN.

- Lúpi nā'ish hūnk K'múkamtch shutäyēga; ná-asht nā'ish hūnk gá-ag*
 At first us K'múkamtch began to create; so to us long ago
- kēmúтчhát k shashapkēli-í'a gēnta kállatat Tchía hū'k lá'pi shá-ungalk*
 an old man told the myth this world about. Lived the two related as son and father,
- 3 *Aíshish K'mú'kamtchish; né-ulxa hūnk gē'n, nánuktua ká-akt hū'k gäg,*
 Aíshish (and) K'múkamtch; resolved this one, (that) all things, whichever (are) here, (and)
- nánuktua kiä'm ámbutat wá, gít ki giug. Tchúyunk pá'n I-ulalónan*
 all kinds of fish, in the water (which) should come into live, existence. Then again at the outlet at Linkville
- tchkash né-ulxa páplishash gít ki giug, mú' gint nkí'llipsh tí'wish ndú'l-*
 also he caused a dam to come into exist- very there rapidly the rushing running waters
- 6 *shampksh páltki, inú'ash shlé-uyuk, tchúyunk máklaksash kiä'm í'tklank*
 down to leave dry, the south wind when blows, and hereupon the Indians the fish scooping up
- pálshtat pátki gi.*
 on the bottom should feed left dry upon.
- Tchúi pán húmasht giulank K'múkamtch únaka tochkash m'na Aíshi-*
 Hereupon having performed this K'múkamtch son than his Aíshish
- 9 *shash shtilta p'laíwasham shnú'lash, shléank kēnawatat shkúlelam wewéka*
 sent after an eagle's eyrie, perceiving up on a kēnawat- of a lark the young ones stalk
- hū'nk shú'kayank, shnepē'mpemuk vunaká m'na. Snáwedsh spú'ntxashka*
 hanging (on it), in order to entrap son his. A wife to abduct (from him)

gíng tchúyunk K'mú'kamtch spû'nshna. K'mú'kamtch heméze shí'ash-
 then K'mú'kamtch took (him) along. K'mú'kamtch told (him) to take
 kank hú'n tchúlish, kállish tchísh shúkatonolô'tch. Tchéui Aíshish gú'ka
 off (his) shirt, belt also (and) hair-ribbon. Then Aíshish climbed
 kapkágatat; tchúyunk kú'ga, atí kédsha. Aíshish shataldí'ldamna gúkē- 3
 on the low tree; and (while) he climbed, high it grew. Aíshish steadily looked down while
 nû'ta, atí at kédshísh; at hú'uk tchúí shláá tchítchúí'léka pá'-ulapksk
 climbing, high until it had grown; and then he saw little birds lying
 shnú'lashtat shkú'lelam. Tchéui Aíshish gé'hlapka shnú'lashtat ká'shgug
 in the nest of the lark. Then Aíshish went into the nest being unable
 gú'trapélish; hí'-ítak tchúí tchí'-uapk. 6
 to climb back; there then he was going to stay.

K'mú'kamtch toksh hú'uk nánuk Aíshisham shúlótish shnúka; shú'-
 K'mú'kamtch however the whole of Aíshish's clothing took away; dressing
 luatchnank gá'mbéle k'léwidshnank m'na únaka. Snéwedsh páldshapéluk
 himself in it he returned relinquishing his son, (his) wife to abduct
 hátokt gátpampéle Aíshisham tchí'shtat; tchéui Aíshisham wéwanuish 9
 over there he went back of Aíshish to the dwelling; then Aíshish's wifes
 ká'yema K'mukámteish; "ká-i a hú'k gég nálám híshuaksh" tchí' húnk
 interpreted K'mukámteish; "not (is) this here our husband" thus
 hú'ksa gi. Nā'dshak húk híshuákshlank K'mú'kamtchash, nánka toks
 they said One only consorted with K'mú'kamtch, but the others
 ká-i shanahō'li. 12
 not wanted (him).

Át toks húk Aíshish shú'isha, nánuk káko píl k'leká tiá'muk kaitua
 But now Aíshish became lean, all over bones nothing he became for starving (and) nothing
 pá-uk. Tchéui lápi wá'kwak-wéwanuish gépkatk shléá Aíshishash shnú'-
 eating. Then two butterfly-females soaring by saw Aíshish in the
 lashtat kshí'klapksk. Ná-iti m'nálam sha skáyamteish pásh ámbutech 15
 nest lying. In basket their they carried on back food water also
 í'kugank, tchéui sha Aíshishash shéwana pásh, ámbu tchí'sh sha tchíya.
 putting into, hereupon they to Aíshish gave food, water also they gave.
 Kú'shga tcha, p'lú' í'tchuank shulótish sha pá'n lé'vúta. Aíshish heméze:
 They combed oil putting on him in clothes they again dressed (him). Aíshish inquired:
 "wák haitech át núsh gi'-uapk a?" tchéui hú'ksa ná-asht gi: "génta a-i 18
 "what ye wish me intend to do?" then they thus said: "into this
 mí'sh ná'd hístchazú'gank skatzipéli-uápka." Aíshish tóksh shash hú'uk
 you we placing into (we) shall carry down." Aíshish but to them
 nánuk shé'gsha: "pí' nú'sh gén géntech né-ulakta p'tí'shap gé-u K'mukám-
 all about it explained: "he me in this manner treated badly father my K'mukám-
 tchiks!" hú'uk na-ā'sht gi Aíshish. 21
 antch!" thus said Aíshish.

Tchéui yopalpúléash mû'lua skatzipéli-uápuk Aíshishash kállant;
 Hereupon the butterflies got ready to take down again Aíshish to the ground;
 wéwanuish toks hú'k Aíshisham méya lá'pi, Klétiamteish tchí'sh Tché'ggashí
 (and) wifes of Aíshish dug roots two, (called) old also Tché'gashí

- tú'la. Wá'kaltk hú'kt ki. Tchúi Aíshish géna me-ishxéni, tapí'tankni
withal. Child-having this was. Then Aíshish went to the digging- keeping behind
prairie,
- gáldshui Tchikash; Tchikalam wá'ka shléa máhiash Aíshisham, tchúi
he walked up to Tchika; of Tchika the child perceived the shadow of Aíshish, and
- 3 p'tí'shalpka. Ktú'pka Tchí'ka m'na wéka shlámiuk; tchúi Aíshish háméxe:
cried: "father!" Slapped Tchika her child in wrath: whereupon Aíshish said:
"wák í' ún giúg' ktú'pka?" Shatalkiámna Tchí'ka, shlaá Aíshishash
"why you (it) slap?" Looked around Tchika, saw she Aíshish
- huyégank, hú'tan ku-ishéwank shlá'péle; tchúi Aíshish spúnshámpéle
stung down, ran she rejoicing to meet (him) again; then Aíshish took home again
- 6 Tchí'kash stíya pí'l nú'sh gí'pksh Kletíshash pé'n galdshúyank shatmá-
Tchika pitch on her head having. Kletísh also approaching he called (her)
péle; tchúi shash lápok á'mpéle tchí'shtal' m'na. Tchúi shash tchí'shxyeni
home; then them both he brought towards home his. to them to his home
- í'tpampélank yámnash shéwana, tchélish hú'nk lúelank yámnashla; ndan-
having brought back neck-wear he gave. porcupines killing he made necklaces; to
- 9 nē'ntch hú'nk wéwanshish yámnash shéwana.
three (of his) wives neck-wear he gave.
- Tchúyuk K'mú'kamtch túmēna m'na únaka tchí'sht, mū'lua génuapkg
Upon this K'múkamtch heard (that) his son was (still) (and) pre- to proceed
alive, pared
- háaktala. Tchúi Aíshish unakáka m'na shítáli pá'ks nutolalólátkiuk lú'-
there. Aíshish to little son his enjoined the pipe to swing off into
- 12 lukshtat K'mukámтчam. Tchúi K'múkamtch gátpanank tchélyá; Aíshisham
the fire of K'múkamtch. Then K'múkamtch arriving sat down; Aíshish's
- hú'k wéka ku-ishé-uk húlladshuitámna p'lukshá m'na. Tchúi hú'nk pá'ksh
son rejoicing ran forth to and back from his grandfather. Then the pipe
- pakakóleshtka K'múkamtcham; pén húlladshui K'múkamtchash. Hú'nk-
he tried to jerk off of K'múkamtch; again he ran up to K'múkamtch. For
- 15 anti K'mukámтч kā-ashtámēna: "tchítchiks a hú't gí." Pá'n hú'ktag
that K'múkamtch reprimanded: "stop that matter!" Again that child
- hú'llatchuyank pakakólan pá'ksh nūtolála lú'lúkshtat; tchúi Aíshish
running up to him jerking off the pipe threw it into the fire; then Aíshish
- ke-ulálapka nádshpáksht, tché'k kéléwi. K'múkamtchash shí'uga tchúi
pushed (it) further until burnt, then he quit. K'múkamtch he killed
- 18 hú'masht gínk, tchúi medshá.
by so doing, then he moved away.
- Mā'ntch-gítк pén K'mú'kamtch wémpéle; pí' tchkash né-ulakta m'na
Long after again K'múkamtch became alive; he then proceeded against his
- únaka. Gén hūnk nánuk shí'ya pí'tlí'ga káluat; tchúi shnatgálka kálo
son. There (he) all over pitch daubed on the sky; then he set on fire the sky
- 21 hú'masht giúlan. Hú'nkanti Aíshish tíá kíuyága; háméxe: "ká-i nú'sh
so after doing. For this reason Aíshish a tray held extended; he said: "not me
- shúgat táta," wéwanuish m'na shí'namshtisht Stí'ya á'-usheltkal hú'k
he may kill ever," wives his being afraid. The pitch turned into a lake
- nánukash kálá, Aíshishamksh pí'l pahá. Tchúi Tū'húsh talpatkóla, stí'ya
all over the world, Aíshish's home only remained dry. Then Mud Hen put its head out, the pitch

tehík hū'nk nxi'-uliga láki; kat húk hū't tchúi lali'ga Tuhú'shash. Hú'n
 then to it dripped on fore- which thing since stuck on Mud Hen. This one
 head;
 gétak hū'nk shkálkēla.
 only was hurt.

NOTES.

This is one of the most popular myths current among the É-ukishikni, and we shall find it partially repeated in another myth, recounted by Dave Hill. Aíshish and his father K'mukámtehiksh represent powers of nature engaged in everlasting strife for mutual extermination. In this myth K'mukámteh resorts to the following trick to destroy his offspring. Seeing young larks in a nest on the top of a sorrel-stalk, he informs him, that if he climbs up there, he can obtain a nest of eagles with all its inmates. Gladdened with the prospect of this capture, Aíshish climbs up, but the insidious father causes the plant to grow miraculously fast under him, so that descent becomes impossible, and Aíshish comes near perishing by hunger and exposure.

In the recollection and wording of some portions of the myth my informant was assisted by "Captain Jim."

94, 1-7. The short fragment of a creation myth preceding the Aíshish tale stands in no causal connection with it, and could as well be inserted elsewhere. Myths entering upon the details of the creation of the world by K'mukámtehiksh do not, as far as ascertained, exist among this people, but in their stead we have many myths for special creations (of man, animals, islands, mountains etc.). A grammatic analysis of the terms occurring in this fragment (from Lúpi ná'ish to pátki gi) was inserted by me in the *American Antiquarian*, Vol. I, No. 3, pages 161-166, under the heading: "Mythologic Text in the Klamath Language of Southern Oregon."

94, 1. Lúpi shutäyēga is not to be considered as a repetition, for it means: when K'mukámteh began to create the world he made us before he made the fish, other animals, and the dam at Linkville. This is, of course, only a small fragment of all the creation myths of this people.

94, 2. shashapkēlia: to tell or count stories, myths or fables in the interest or for the pleasure of somebody; the i is here doubled to obtain a rhetorical effect.

94, 3. K'mú'kamtehish is a contraction of K'mú'kamteh tchish; Aíshish, K'múkamteh also. The longer form of the name of the deity occurs 95, 20.

94, 3. ká-akt, metathetically for kákat; kát is pron. relat. which, what, the thing which. nánuktua ká-akt gäg comprehends all animate and inanimate creation.

94, 4. wá, uá, to stay, exist, live in; is always connected with an indirect object indicating the place, spot, locality or medium where the subject lives or exists.

94, 4-6. The construction of the sentence runs as follows: Tchúyunk (K'mukámteh) né-ulxa gí'tki gíng páplishash I-ulalónan, páltki tí'wish gínt ná'ishámpkash mū' nkil-lipkash, mū'ash shlé-uyuk; "when a south wind blows, it will stop the waters from rushing down rapidly over the cataract." The outlet of Upper Klamath Lake, called Link River, runs from north to south, over the falls at Linkville; hence a powerful south wind will stem the current of Link River above the falls, leave its bottom dry or almost dry, and enable the Indians to catch the fish swimming in the shallow water or wriggling in the mud. The rocky ledge under the cataract is supposed to be the gift of K'mukámteh.

94, 4. I-ulalónan or Yulalóna is the Indian name of the cascade of Link River above the town of Linkville, and for that town itself. The origin of this name is explained in 94, 5, 6, for the verb i-ulalóna means to move forth and back, referring here to the waters of the river receding under the pressure of the south wind.

94, 6. itklank, partic. pres. of itkal, means here: obtaining by basketfuls.

94, 9. The kēnawat is a plant growing high in the warm climate of Northern California, especially in the ancient habitat of the Shasti Indians, and in this myth it suggested itself to the Indians on account of its property of growing very fast.

95, 5. gē'hlapka: he swung himself into the nest by climbing over the rim. Cf. Note to 66, 13.

95, 10. kaizema K'mukámtebsh for the regular form K'mukámtehash. Cf. 91, 8.

95, 15. skáyamteb etc. More plainly expressed this sentence runs as follows: sha skáyamna pásh tchish ámbu tchish; the first tchish being placed before pásh and appended to the apocopated skáyamna.

95, 16. shéwaua here used differently from tchíya, which applies to liquids only.

95, 17. p'lú' itchuank seems to be a quite modern interpolation, for it smells of pomade and hair-oil; but it is as ancient as the myth itself.

95, 23. 96, 2. 3. 4. Tchika. I have rendered this bird-name elsewhere by "Chaffinch," and Klétish by "Sandhill Crane".

96, 3. shlámia, to feel insulted. She resented it as an insult that the child called her deceased husband by name; for it was a capital crime among the ancestors of the present Klamaths to call a dead person's name for many years after his demise.

96, 5. hū'tna is changed to hū'tan on account of being followed by a word commencing with k.

96, 6. stiya. The custom of widows to put pitch or resin on their heads at the death of their husbands was abolished only at the time when cremation became a thing of the past.

96, 6. galdsha-úyank is a more explicit form of the participle; the verb galdshui being the contracted form of galdsháwi.

96, 8. yámnashla. He used the bristles of porcupines to make necklaces of.

96, 11. unakáka m'na was the son of Aíshish and of the above mentioned Tchika.

96, 11. 12. K'mukámtebam qualifies pá'ks, not lúlukshtat.

96, 14. pakakóleshtka, verbal desiderative of pakakóla, to jerk away from. The suffix -óla indicates that K'múkamtch wore his tobacco-pipe tied to his body; he wore it on his neck.

96, 15. tchítchiks is used when speaking to children. It signifies *so, so!* and means: be quiet, shut up, stop!

96, 17. tchē'k kēléwi. In similar connections this phrase very frequently ends a whole narrative in Modoc and Klamath. Here it means that Aíshish ceased to poke the pipe into the fire. Cf. 85, 10. 89, 7.

96, 18. medshá: he removed from that spot with all his wives and children. Ancient customs forbid the offspring to stay where the father had breathed his last.

96, 20. Gén hūnk nánuk etc. This portion of the myth describes the destruction of all the living organisms on earth by a general conflagration caused by K'múkamtch. Myths of this kind are suggested by intense heat experienced in summer. This mode of destroying life on earth is less frequently met with in myths than the drowning in a general flood.

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/406

Klamath Off-Project Water Users, Inc.

February 6, 2006

Judge rules for water releases from Clear Lake

By ALLEN HURLBURT
H&N Correspondent

TULELAKE — In a ruling against the Langell Valley and Horsefly irrigation districts, a federal judge affirmed the Bureau of Reclamation's right to draw water from Clear Lake Reservoir, giving Klamath Project managers the go-ahead to discharge another 100 cubic feet of water per second into the Lost River to make up for a shortage of water in Upper Klamath Lake.

Last Friday, the court ruled

the BOR could release 100 cubic feet per second (cfs) from Clear Lake, pending Tuesday's hearing. Judge Michael Hogan of the Ninth District Court in Eugene is expected to issue an opinion Thursday to determine future releases, said BOR hydrologist Rob Allerman. This morning the BOR was discharging 357 cfs into Lost River, Allerman said, including about 150 cfs normally released to serve the two districts.

See WATER, page A2

WATER

From page A1

Jim Bryant, chief of water and lands for the BOR in Klamath Falls, said the release may be enough to protect farmers' crops, but will not be enough to prevent project managers from violating the requirements of the Endangered Species Act to protect two species of endangered suckers in the lake.

At a special Monday night meeting of the Tullake Irrigation District Board of Directors, farmers were told tapping Clear Lake should allow irrigation to continue uninterrupted.

According to irrigation district manager Earl Danosky, Upper Klamath Lake is dropping at a rate of about .05 inch per day. Without any precipitation, the lake will reach a critical level of 4,139 feet above sea level by Sept. 15.

"At that time, we would expect a temporary restraining order to be filed in the courts to shut off releases," Danosky said. Until then, the district will deliver full water allotments.

A crisis was sparked last month when PacificCorp technicians realized a faulty gauging system had misreported the level of Upper Klamath Lake all summer. The lake level is moni-

tored by PacificCorp, which operates Link River Dam at the mouth of the lake. The dam is used to manage Upper Klamath Lake within a narrow window limited by the needs of endangered species in the lake, and in the Klamath River below Iron Gate Dam.

Two species, the Lost River sucker and the shortnose sucker, are protected as endangered under the federal Endangered Species Act. The coho salmon is protected as a threatened species.

The 4,139 elevation represents the minimal lake level believed necessary to protect critical marsh habitat for the suckers, according to the U.S. Fish and Wildlife Service. It must be maintained throughout September, according to the Klamath Project's 2000 operating plan.

A second deadline looms Sept. 30, when the operating plan calls for releasing additional water to raise the flow in the Klamath River below Iron Gate to 1,300 cfs to provide sufficient water for migrating coho salmon.

Correspondent Allen Hurlburt covers the Tullake and Merrill areas for the Herald and News. He can be reached at (530) 867-5181 or by e-mail at hurlburt@oot.net.

Rain creates dilemma for Basin farms

By ALLEN HURLBURY
H&N Correspondent

TULELAKE — Farmers who were told last week they would have their irrigation water shut off early are now looking at crop losses from too much rain.

"We have water coming out our ears," said Earl Dañosky, manager of the Tulelake Irrigation District. "Just about everybody has shut off their irrigation and we are scrambling to handle the excess water. Station 48, the headworks that releases water from the diversion canal back into Lost River is closed."

"We turned on the third pump at the D pumping station this morning, pushing about 200 cubic feet per second through the tunnel under Sheepy Ridge into Lower Klamath. The control gates that release water from Sump B have been closed allowing drainage water to pond up in the sump."

The irony of the situation is that almost none of the water the Bureau of Reclamation won in court to release from Clear Lake into Lost River has been used as it was intended. Mother Nature, as always, held the upper hand when it came to water, farmers said.

Throughout the controversy between the Horsefly and Langell Valley irrigation districts, Jim Bryant of the Bureau of Reclamation said any rain, even as little as a quarter of an inch, would make a huge difference in the overall outcome of the water shortages the Basin was experiencing.

The storm that came Friday more than answered Bryant's prayers; Klamath Falls recorded .7 inches rain for the three-day storm, while Tulelake had 1.5 inches and Matt Huffman, a



Photo by Allen Hurlburt

The edge of a Malin potato field is covered with water.

Copic Bay farmer, said 2 inches were recorded in his area.

The mood of Basin farmers changed from a frantic rush to get their fields irrigated before the water was shut off to shutting off water and trying to adjust the harvest of their crops to the heavy rains. Many alfalfa farmers were caught with third cutting hay down when the rains came.

Many grain fields that were ripe and ready to harvest were pushed flat to the ground and are at risk of spoilage unless it warms up and dries out, farmers said. Dry weather is expected today and Wednesday.

"We are releasing 450 cfs out of Clear Lake and only about 50 cfs is being diverted for the farmers in HID and LVID," Bryant said. "Actually, Lost River is picking up an additional 500 cfs between Malone Dam and the Diversion Canal, putting the total that the Diversion Canal is putting into the Klamath River at about 900 cfs."

The effect of the storm on either Klamath Lake or Clear Lake are not yet available, said Bryant.

Correspondent Allen Hurlburt covers the Tulelake and Merrill areas for the Herald and News. He can be reached at (530) 667-5181 or by e-mail at hurlburt@cot.net.

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/407

Klamath Off-Project Water Users, Inc.

February 6, 2006

Pursuant to Oregon Rules of Civil Procedure, including ORCP 36, 43 and other applicable rules of procedure in this proceeding, including OAR 860 Division 14, Oregon Natural Resources Council (“ONRC”) for itself and for no other party or participant in this proceeding, responds to the data requests of the Klamath Off Project Water Users, Inc. (“KOPWU”) as follows:

GENERAL OBJECTIONS AND GENERAL RESPONSE

A. ONRC objects to KOPWU’s definitions and instructions to the extent they attempt to impose obligations inconsistent with or in excess of those imposed by the Oregon Rules of Civil Procedure or rules of procedure relevant to this proceeding. In particular, and without limitation, ONRC objects on this basis to all of KOPWU’s definitions and instructions and specifically definitions 2, 6, and 7 and instructions 1-10 and 12 – 14. ONRC also objects to the definitions and instructions on the grounds they are vague and ambiguous.

B. ONRC objects to the production of responses to these data requests at the office of Kathryn Iverson in Surprise, Arizona. Any ONRC documents provided will be made available to KOPWU’s counsel for copying and distribution to Kathryn Iverson as appropriate.

C. ONRC objects to each data request to the extent that it seeks information protected by the attorney-client privilege and/or work-product privilege and/or other applicable privilege or immunity. To the extent documents protected by any such privilege or immunity inadvertently are produced, such production is not an intentional relinquishment of the right to assert such privilege or immunity and shall therefore not be a waiver of such right unless ONRC expressly indicates otherwise.

D. ONRC objects to each data request to the extent that it seeks the production of documents relating to or containing confidential and/or proprietary information. Without waiving this objection, to the extent each data request seeks the production of documents relating to or containing such confidential and/or proprietary information, any production of documents by ONRC responsive to each such data request will be made only after an appropriate protective order has been entered in this proceeding. To the extent confidential or proprietary documents are

inadvertently produced, such production is not an intentional relinquishment of the right to assert any privilege related to such documents and shall therefore not be a waiver of such right unless ONRC expressly indicates otherwise.

E. ONRC objects to the requests to the extent they purport to require ONRC to conduct computer forensic work on grounds it would be unduly burdensome and prohibitively expensive.

F. ONRC objects to these data requests to the extent they seek to require ONRC to locate, collect, copy and provide to KOPWU documents available as public records. The administrative and financial burden of locating, photocopying and obtaining such records is appropriately borne by KOPWU.

G. All of the preceding General Objections and the General Response are incorporated by reference in each of the specific responses below.

SPECIFIC RESPONSES

1.1 Please provide all workpapers, analyses, studies, spreadsheets, and source documents (in electronic format with all cells and formulae intact where available) used to develop Mr. McCarthy's testimony (ONRC et al./100) and accompanying exhibits.

See attached photocopies of notes and CD source material, including the 2002 ONRC-published report, *Ratepayer Rip-Off: Electric Power Subsidies in the Klamath Irrigation Project*. The vast majority of the source material for ONRC's testimony, *Ratepayer Rip-Off* and Exhibits 101 and 102 is available as public documents either in UE 171 and UE 170, through the Bureau of Reclamation (USBR), or through the Oregon Public Utility Commission ("PUC"). ONRC has provided an official list of public documents obtained through the USBR and used as source material for *Ratepayer Rip-Off*. KOPWU is free to request this material from the USBR. ONRC did not prepare Exhibits 103-106 to McCarthy's testimony and ONRC does not possess any workpapers, analyses, studies, spreadsheets and source documents used in the preparation of such exhibits. As to these exhibits, ONRC directs KOPWU to the agencies of the federal government that prepared such exhibits and the California Department of Fish and Game for documents responsive to this data request.

1.2 Please provide a detailed listing of all prior utility proceedings in which Mr. McCarthy has submitted testimony. Please provide copies of all prior testimony that Mr. McCarthy has submitted in these proceedings.

None.

- 1.3 Please provide a detailed listing of all utility rate cases in which Mr. McCarthy has participated.**

OPUC: UE 171, UE 170; CPUC: A 05-11-022.

- 1.4 Please describe in detail Mr. McCarthy's specific experience regarding utility rate making.**

Mr. McCarthy has no direct experience with utility rate making prior to participating in UE-170/171.

- 1.5 Please provide a detailed description of ONRC. Please provide a copy of the organization's bylaws, a listing of its board members, and its articles of incorporation.**

ONRC objects to this data request as overbroad, vague, unduly burdensome and not calculated to lead to the discovery of admissible evidence. By way of a response regarding a general description of ONRC, ONRC directs KOPWU to ONRC's website for general information on ONRC: www.onrc.org

- 1.6 Please provide a detailed description of WaterWatch of Oregon. Please provide a copy of the organization's bylaws, a listing of its board members, and its articles of incorporation.**

This request is not directed at ONRC.

- 1.7 Please provide a detailed description of the Pacific Coast Federation of Fishermen's Associations. Please provide a copy of the organization's bylaws, a listing of its board members, and its articles of incorporation.**

This request is not directed at ONRC.

- 1.8 Reference ONRC et al./100, McCarthy/4: "The rates paid by the Klamath irrigators under their current special contracts are roughly an order of magnitude below the power rates routinely paid by every other non-Klamath irrigator or agricultural producer customer of PacifiCorp in Oregon." Please explain the basis for this statement and provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See ONRC at al. Exhibit 102, Chart 2. This statement is based upon a simple calculation based upon the figures in this chart. If two numbers differ by one order of magnitude, one is about ten times larger than the other.

- 1.9 Reference ONRC et al./100, McCarthy/4: “PacifiCorp provides the subsidized power rates under the current contracts at a substantial loss. Other PacifiCorp customers must pay PacifiCorp’s costs of providing this subsidized power.” Please explain the basis for these statements and provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1. This fact has been stated repeatedly by PUC and PacifiCorp staff during this proceeding and is public knowledge.

- 1.10 Reference ONRC et al./100, McCarthy/4: “Highly subsidized power rates allow Klamath agricultural producers to compete unfairly against non-subsidized producers throughout the rest of Oregon.” Please explain the basis for this statement and provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off*, Table 6. See also ONRC et al. Exhibit 103: William K. Jaeger, *Energy Pricing and Irrigated Agriculture in the Upper Klamath Basin*, (Report EM 8846-E, July 2004), Oregon State University Extension Service, Supplemental Brief #3 to *Water Allocation in the Klamath Reclamation Project* (2002).

- 1.11 Reference ONRC et al./100, McCarthy/5: “There is evidence that agricultural irrigation diversions in the Klamath Basin affect imperiled fish species and moving Klamath irrigators to standard tariffs could reduce irrigation diversions and increase efficient water irrigation use.” Please explain the basis for this statement and provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request. Furthermore, please provide all studies that show a link between “agricultural irrigation diversions” and impacts on imperiled fish.**

See ONRC et al. Exhibit 103: William K. Jaeger, *Energy Pricing and Irrigated Agriculture in the Upper Klamath Basin*, (Report EM 8846-E, July 2004), Oregon State University Extension Service, Supplemental Brief #3 to *Water Allocation in the Klamath Reclamation Project* (2002). ONRC objects to this request as overbroad, vague, ambiguous, unduly burdensome and not calculated to lead to the discovery of admissible evidence. ONRC has no obligation to perform for KOPWU a review of scientific literature to provide “all studies that show a link between agricultural irrigation diversions and impacts on imperiled fish.” By way of a further response, ONRC incorporates WaterWatch’s response to this data request.

1.12 Please define the term Klamath Irrigation Project (“KIP”). Does KIP include or exclude off-project irrigators?

It is ONRC’s understanding that the Klamath Irrigation Project encompasses some 220,000 acres of agricultural land in the upper Klamath River Basin developed and administered by the USBR. This definition excludes the off-project irrigators. .

1.13 Reference ONRC et al./100, McCarthy/5: “The farmers of the Klamath Irrigation Project (KIP) have not had a power rate increase since 1917, i.e., not for 89 years.”

- a. **Please explain the basis for this statement and provide all documents relied upon in reaching this conclusion.**
- b. **Does Mr. McCarthy have copies any bills or other service statements supporting this statement? If so, please provide these documents.**
- c. **Is Mr. McCarthy aware of any charges other than the base tariff that are included in the Klamath Irrigators’ final rates? If so, please explain how the Klamath irrigators’ rates have not increased in the past 89 years.**

Response:

- a. See documents responsive to 1.1, specifically the 1917 and 1956 contracts.
- b. No.
- c. No. Only irrigators in the Klamath Irrigation Project have enjoyed 89 years without rate increases because of the terms of the 1917 and 1956 contracts. Off-project irrigators have enjoyed nearly 50 full years without rate increases.

1.14 Reference ONRC et al./100, McCarthy/6. Please describe whether any off-project water users have been provided with free power line extensions. Please explain the basis for your conclusion and provide all documents relied upon in reaching it.

It is ONRC’s understanding that off-project water users do not receive free power line extensions. See documents responsive to 1.1, specifically the 1956 contracts.

1.15 Reference ONRC et al./100, McCarthy/6-7, Table I.

- a. **Please explain the basis for the numbers in this table and provide all workpapers relied upon. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**
- b. **Please describe the rate schedule(s) used to create this table and reconcile the 0.6¢/kWh with the rates listed in the Klamath irrigators’ contracts.**

Response:

- a. See documents responsive to 1.1, specifically *Ratepayer Rip-Off*.
- b. The ONRC report used Schedule 41 in Oregon and Schedule PA-20 in California to compare the California and Oregon schedules for irrigators in the Klamath Basin, commonly known as the USBR and UKRB rates. 0.6¢kwh was chosen from the middle of the range of existing Klamath Basin irrigation rates as an approximate representative of that range.

1.16 Reference ONRC et al./100, McCarthy/7. Please explain what you mean by “poor-quality and marginal lands.” Please provide all documents relied upon in formulating your position.

See ONRC et al. Exhibit 103: William K. Jaeger, *Energy Pricing and Irrigated Agriculture in the Upper Klamath Basin*, (Report EM 8846-E, July 2004), Oregon State University Extension Service, Supplemental Brief #3 to *Water Allocation in the Klamath Reclamation Project* (2002). It is ONRC’s understanding that poor-quality and marginal lands generally include a portion of all Class IV and V lands in the Klamath Basin identified in this report.

1.17 Reference ONRC et al./100, McCarthy/7. Please delineate with specificity all areas in the Klamath Basin that qualify as “poor-quality and marginal lands” and describe your expertise regarding the analysis of land quality. Please provide all workpapers relied upon in formulating your position. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.

See response to 1.16. ONRC also objects to this data request on the grounds that it is overbroad, vague, ambiguous and not calculated to lead to the discovery of admissible evidence.

1.18 Reference ONRC et al./100, McCarthy/8: “The current cost of this central component of the Klamath Basin subsidy is approximately \$6.2 million annually, paid for by other PacifiCorp ratepayers, though the amount varies from year to year by usage.” Please explain the basis for this number and provide all documents relied upon in reaching this conclusion.

See documents responsive to 1.1, specifically *Ratepayer Rip-Off* Table 3 and endnote 36.

1.19 Reference ONRC et al./100, McCarthy/8. Please define “standard pump fees.” Please provide all tariffs relied upon that reference “standard pump fees.”

See documents responsive to 1.1, specifically *Ratepayer Rip-Off* endnote 5.

- 1.20 Reference ONRC et al./100, McCarthy/8: “A highly conservative estimate for the current subsidy value of the pumping fee exemption alone, for the roughly 2,600 agricultural pumping service customers in the Klamath Basin, is \$2.6 million annually.” Please explain the basis for calculating this number and provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off* endnote 40.

- 1.21 Reference ONRC et al./100, McCarthy/9: “Adding the total annual costs of these three types of losses together gives numbers for the annual ratepayer burden as follows: approximately \$6.2 million/year (low rates) plus \$2.6 million (pumping fee exemption) plus \$1.1 million/year (free powerline extensions) equals approximately \$9.9 million/year in economic burden on PacifiCorp ratepayers from this subsidy.” Please explain the basis for these statements and provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off*.

- 1.22 Reference ONRC et al./100, McCarthy/9. Please specify the exact number of “KIP customers [who] irrigate lands just across the border into California” and provide their load data.**

See documents responsive to 1.1. Based on PacifiCorp documents, the ONRC report calculated an average of 594 KIP customers in California between 1997 and 2001. This should be considered a rough estimate. ONRC does not have the current load data for these customers.

- 1.23 Reference ONRC et al./100, McCarthy/10. Please define how the California “standard agricultural tariff is slightly different.” Please explain the basis for your response and provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off* and the 1956 contracts.

- 1.24 Reference ONRC et al./100, McCarthy/10. Please explain the basis for your conclusion that PacifiCorp “spreads the costs over their ratebase as a whole.” Please provide all workpapers relied upon in reaching this conclusion. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1. This fact has been stated repeatedly by PUC and PacifiCorp staff during this proceeding and is public knowledge.

- 1.25 Reference ONRC et al./100, McCarthy/10, Table II. Please explain the basis for the numbers in this table and provide all workpapers relied upon in calculating these numbers. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off*.

- 1.26 Reference ONRC et al./100, McCarthy/11, Table III. Please explain the basis for the numbers in this table and provide all workpapers relied upon in calculating these numbers. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off*.

- 1.27 Reference ONRC et al./100, McCarthy/12, lines 3 through 8. Please explain the basis for the statements and numbers in these lines and provide all workpapers relied upon. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off*.

- 1.28 Reference ONRC et al./100, McCarthy/12, lines 18 through 26. Please explain the basis for the statements and numbers in these lines and provide all workpapers relied upon. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

See documents responsive to 1.1.

- 1.29 Reference ONRC et al./100, McCarthy/12.**

- a. Please specify the “new six-state utility cost-sharing agreement” that supposedly comes into effect in 2006.**
- b. Please explain how this new agreement relates to PacifiCorp’s Revised Protocol allocation method.**
- c. Please provide all workpapers relied upon in calculating Oregon’s “burden” percentage. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request.**

- d. **Please describe Mr. McCarthy's expertise with multi-state allocation methodologies.**

Response:

- a. Revised Protocol for Inter-Jurisdictional Allocation Method.
- b. ONRC objects to this data request as overbroad, outside the scope of ONRC's testimony, more appropriately directed to PacifiCorp, vague, ambiguous and not calculated to lead to the discovery of admissible evidence.
- c. See documents responsive to 1.1.
- d. None.

- 1.30 Reference ONRC et al./100, McCarthy/13, Table IV. Please explain the basis for the numbers in this table and provide all workpapers relied upon in calculating these numbers. If the workpapers were already provided in response to KOPWU Data Request No. 1.1, please specifically identify each workpaper that relates to this request. Please explain the relevance of crop irrigation costs for ratemaking purposes.**

See documents responsive to 1.1, specifically *Ratepayer Rip-Off*. ONRC interviewed a number of irrigators in the upper Klamath River Basin regarding their current (in 2002) per-crop irrigation pumping costs, then multiplied those costs by 16 to achieve a rough estimate of their probable post-subsidy costs. These estimates are relevant because the cost of crop irrigation goes to the question of what irrigation rates would be just and reasonable in the Klamath Basin, environmental externalities related to electrical pricing and irrigation, and allegations of rate shock and other alleged effects of raising electrical rates in the basin.

**Before the
Public Utility Commission
of Oregon**

**In the Matter of the Request of
PACIFIC POWER & LIGHT (dba PacifiCorp)
Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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UE 170

Rebuttal Testimony of
Kathryn E. Iverson

On Behalf of
Klamath Off-Project Water Users, Inc.

February 6, 2006



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

2 A My name is Kathryn E. Iverson; 17244 W. Cordova Court, Surprise, Arizona, 85387.

3 **Q ARE YOU THE SAME KATHRYN E. IVERSON THAT PRESENTED DIRECT**
4 **TESTIMONY IN THIS CASE ON BEHALF OF KLAMATH OFF-PROJECT WATER**
5 **USERS, INC. ("KOPWU")?**

6 A Yes, I am.

7 **Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PHASE OF**
8 **THE PROCEEDING?**

9 A My rebuttal testimony responds to PacifiCorp's marginal cost study including
10 Schedule 33 customers, the Company's treatment of rate credits in this proceeding,
11 the impact of requiring irrigators with loads greater than 1,000 kW to take service
12 under Schedule 48, and the Company's proposed Off-Project charges and rate
13 design.

14 **Q WHAT ARE YOUR CONCLUSIONS?**

15 A The following points summarize my conclusions:

- 16 • PacifiCorp's filed marginal cost study fails to recognize the lower cost to serve
17 Klamath Basin customers.
- 18 • Irrigation customers generally do not have load characteristics similar to those
19 served under Schedule 48. The rate design for Schedule 48 is geared toward
20 large users with consistent year-round use and higher load factors. Large
21 Klamath irrigation customers should not be forced to take service under Schedule
22 48.
- 23 • PacifiCorp's proposed charges do not comply with the provisions of Senate Bill 81
24 ("SB 81") as the total increase to customers would exceed 50%.
- 25 • Any change to Schedule 33 rates should retain the all-energy rate design.
- 26 • There is no need for any additional surcharge to other Oregon customers as a
27 result of this proceeding. The allowed \$26 million revenue increase has been
28 spread to all customers, and any additional revenues that result of from changes

1 to Schedule 33 rates should be used to offset the increase to other Oregon
2 ratepayers' rates.

3 **Q ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR**
4 **REBUTTAL TESTIMONY?**

5 A Yes. I am sponsoring Exhibits KOPWU/501-503.

6 **PacifiCorp's Proposal Ignores Marginal Cost Study Results**

7 **Q HAS PACIFICORP PERFORMED A MARGINAL COST STUDY INCLUDING THE**
8 **KLAMATH BASIN IRRIGATORS IN ITS OPENING TESTIMONY?**

9 A Yes. Mr. Anderberg provides a cost study that includes Klamath Basin irrigators.

10 **Q DO YOU AGREE WITH THE RESULTS OF THIS STUDY?**

11 A No. First and most importantly, PacifiCorp has ignored the results of its previous
12 marginal cost study, which conclusively demonstrated that the cost to serve Klamath
13 Basin irrigators is roughly 16% less than the cost to serve other irrigators. In fact, for
14 the delivery portion of the marginal costs, the cost to serve Klamath Basin customers
15 is **26% lower** than other irrigators.

	<u>Delivery Revenues</u>	<u>MWh</u>	<u>¢ per kWh</u>	<u>Savings</u>
Schedule 41	\$7,085,000	119,204	5.94	
USBR/UKRB	\$4,009,000	90,609	4.42	
				25.6%

16 PacifiCorp neglects to mention these pertinent facts since Mr. Anderberg's cost study
17 combines the Klamath Basin loads with Schedule 41 and Schedule 48.

Q IS THERE ANOTHER ERROR WITH HIS STUDY?

A Yes. Exhibit PPL/1702, Anderberg/3 erroneously assumes that PacifiCorp's allowed revenues should increase by \$7.7 million as a result of including Klamath Basin irrigators in the marginal cost study. Line 5 of this exhibit is incorrect. "Revenue From Classes Included in MC Study" is a residual number used to functionalize the portion of Oregon target revenues remaining after revenues associated with services not included in the cost study (such as partial requirements, lighting, employee discounts) are removed from the total Oregon revenue requirement. Mr. Anderberg mistakenly adds the revenues associated with Schedule 33 customers at tariff rates to the "Revenue From Classes included in MC Study," which has the effect of increasing the Total Oregon Revenues. As explained in more detail later, PacifiCorp's allowed revenue requirement was established by Order No. 05-1050 and should not change as a result of this proceeding. The correct amount shown in Line 5 of PPL/1702, Anderberg/3 should be \$818.37 million.

	<u>\$000's</u>
Total Oregon Revenue:	\$834,126
Other Revenue:	
Partial Requirements	11,977
AGA	1,404
Lighting	2,779
Employee Discount	<u>(404)</u>
Subtotal Other Revenue	15,755
Residual: Revenue From Classes Included in MC Study	\$818,370

Correcting Line 5 of PPL/1702, Anderberg/3 will correspondingly change the functionalized class revenue requirement targets shown on page 1 of this same exhibit.

1 **Q DID PACIFICORP EXPLAIN ITS REASONS FOR INCREASING ITS ALLOWABLE**
2 **REVENUE REQUIREMENT IN EXHIBIT PPL/1702?**

3 A Yes. Attached as Exhibit KOPWU/501 is PacifiCorp's response to a data request in
4 which KOPWU asked the Company to explain the basis for an additional \$7.7 million
5 of revenue. PacifiCorp responded as follows:

6 Exhibit H, Adjustments P-5 and P-6 in Order No. 05-1050 removed the
7 USBR/UKRB imputed revenues and associated Oregon allocated
8 expenses that had been included in the Company's original filing.
9 These adjustments had the effect of completely removing all
10 USBR/UKRB revenues from rates. Exhibit PPL/1702, page 3 shows
11 the revenue requirement impact of including these customers at cost of
12 serviced based rates.

13 KOPWU/501, Iverson/1-2 (emphasis added).

14 **Q DO YOU AGREE THAT ADJUSTMENTS P-5 AND P-6 HAD "THE EFFECT OF**
15 **COMPLETELY REMOVING ALL USBR/UKRB REVENUE FROM RATES?"**

16 A No. Item P-5 added \$7.2 million to PacifiCorp's proposed revenue increase because
17 the Company's original \$102 million increase assumed that present base revenues
18 included imputed revenues from Schedule 33 customers. Item P-5 removed only the
19 imputed revenues. Thus, Item P-5 did not completely remove all USBR/UKRB
20 revenues from rates.

21 **Q EXHIBIT PPL/1210 PURPORTS TO SHOW THAT KLAMATH BASIN IRRIGATORS**
22 **HAVE "USAGE CHARACTERISTICS NOT UNLIKE SCHEDULE 41 CUSTOMERS."**
23 **DO YOU AGREE WITH THIS CONCLUSION?**

24 A Both customer classes contain customers that cover a full range of usage. However,
25 this tells us nothing conclusive, because, as demonstrated by the PacifiCorp data
26 response that is attached as Exhibit KOPWU/502, all Oregon rate schedules contain
27 customers that cover a full range of usage.

1 A more revealing comparison of usage characteristics was provided in the
2 testimony offered by Klamath Water Users Association. See KWUA/102,
3 Schoenbeck/6. Over half (56%) of the Schedule 41 irrigation customers have loads
4 less than 10 kW, while more than half (54%) of Schedule 33 customers have loads
5 greater than 30 kW. Since Schedule 33 is a group of customers with larger loads in
6 general, the cost to provide delivery service to this group is lower on a per unit basis
7 and must be reflected in the rates to that class. The rate design of Schedule 41 does
8 not reflect the lower cost of service and thus is not appropriate for service to Klamath
9 Basin customers.

10 **Large Irrigators Should Not Be Forced Onto Schedule 48**

11 **Q MR. ANDERBERG TESTIFIES THAT ONE KLAMATH BASIN IRRIGATION**
12 **CUSTOMER QUALIFIES FOR SERVICE UNDER SCHEDULE 48. DO YOU**
13 **AGREE THAT IRRIGATORS WITH LOADS GREATER THAN 1,000 KW SHOULD**
14 **BE FORCED ONTO SCHEDULE 48?**

15 **A No.** Schedule 48 is a tariff applicable to large general service where loads have
16 registered 1,000 kW or more, more than once in a preceding 18-month period.
17 Furthermore, Schedule 48 customers are typically large industrial users with
18 consistent energy usage throughout the year. The average load factor of the
19 Schedule 48 customer class is 64%.

20 In contrast, irrigation loads by their very nature are seasonal and tend to be
21 concentrated in the growing season. In fact, the one Klamath Basin irrigation
22 customer that qualifies for Schedule 48 service consumes energy only six months out
23 of the year, with 90% of its total energy consumption taken during four months. Thus,
24 this large irrigation customer, while having a demand exceeding 1,000 kW, does not
25 have load characteristics similar to those served under Schedule 48. Furthermore, it

1 is not unusual for irrigators to have monthly load factors of 20-30% during the growing
2 season. Combining these low load factors with months where their load factor may
3 be zero (i.e., no energy usage during the month) can result in load factors averaging
4 10% or less over the course of the year. Information provided by the Company for
5 the Klamath Basin irrigators shows that roughly two-thirds of the customers with
6 estimated non-zero demands have average load factors of less than 15%. These load
7 factors are in sharp contrast to the much higher load factors exhibited by the
8 Schedule 48 customer class.

9 **Q ARE THERE SIGNIFICANT DIFFERENCES BETWEEN SCHEDULE 41 RATES**
10 **AND SCHEDULE 48 RATES?**

11 A Yes. The Basic Charge and Load Size Charge under Schedule 41 are designed as
12 once-per-year charges. In contrast, Schedule 48 has a monthly fixed Basic Charge
13 that is assessed each and every month, and a Facilities Charge dependent upon the
14 two greatest non-zero monthly demands established during the prior 12-month
15 period. For example, an irrigation customer served at secondary voltage would be
16 assessed \$1,340 for the Basic Charge and \$7.00 per kW based on its load size.
17 Distribution and transmission costs would also be recovered through energy charges
18 of 3.929¢ and 0.448¢ per kWh. In contrast, a customer served under the secondary
19 voltage of Schedule 48 would pay \$3,120 for its Basic Charge, and annual demand
20 charges of \$33.48 per kW¹ with no energy charge. Since most irrigation customers
21 have low load factors, a requirement to take service under this type of rate design can
22 have serious revenue implications and would be punitive for irrigation customers. It is
23 inappropriate to place an irrigation customer on an industrial customer tariff.

¹ Facilities Charge of \$1.40 for twelve months, plus On-Peak Demand Charge of \$1.19 for six months (assumes irrigator takes power only six months of the year), plus Transmission & Ancillary Services Charge of \$1.59 for six months.

1 **Q ARE IRRIGATION LOADS IN EXCESS OF 1,000 KW A COMMON**
2 **PHENOMENON?**

3 A It does not appear so. Of the 2,171 Klamath Basin irrigation customers, it appears
4 that only a single irrigation customer falls into this category. We do not know how
5 many, if any, of the existing irrigation customers have loads that also require them to
6 take service under Schedule 48.

7 **Q WHAT DO YOU RECOMMEND AS FAR AS MOVING IRRIGATORS WITH LOADS**
8 **IN EXCESS OF 1,000 KILOWATTS TO SCHEDULE 48?**

9 A Irrigation customers generally do not have load characteristics similar to those served
10 under Schedule 48. Given that the rate design of Schedule 48 is geared toward
11 customers with higher load factors and consistent usage over the entire year, it would
12 appear that a mandatory requirement that irrigation customers with loads greater than
13 1,000 kW take service under Schedule 48 could result in significant rate shock in
14 situations of low load factor. The fact that Klamath irrigation customers' more
15 substantial electric usage does not fit neatly into PacifiCorp's existing rate schedules
16 provides additional justification for continuing to treat these customers as a separate
17 customer class that receives service under its own rate schedule.

18 **PacifiCorp's Proposed Charges Do Not Comply with SB 81**

19 **Q HAS PACIFICORP PROVIDED AN EXAMPLE OF A BILL THAT REFLECTS THE**
20 **COMPANY'S PROPOSALS WITH RESPECT TO IMPLEMENTATION OF SB 81?**

21 A Yes. KOPWU Data Request No. 10.2 asked the Company to provide such a bill
22 example. The Company's response is shown in Exhibit KOPWU/503 and shows that
23 a hypothetical Schedule 33 Off-Project customer would pay new charges of \$67.11
24 for monthly service of 10,760 kWh under PacifiCorp's proposal:

1	Off-Project SB 81 Energy Charge: 10,760 kWh x \$0.011250 =	\$121.05
2	Public Purpose: 3% of Revenues =	\$3.63
3	BPA Energy Discount: 10,760 kWh x (\$0.005680) =	(\$61.12)
4	Low Income Assistance: 10,760 kWh x \$0.000330 =	<u>\$3.55</u>
5	Total	\$67.11

6 **Q PACIFICORP'S EXAMPLE SHOWS THE PROPOSED CHARGE TO THE**
7 **HYPOTHETICAL OFF-PROJECT CUSTOMER. UNDER THE CURRENT**
8 **SCHEDULE 33 RATES, WHAT IS THE CURRENT AMOUNT PAID BY SUCH A**
9 **HYPOTHETICAL CUSTOMER?**

10 A A current Off-Project customer would pay \$34.16 under present Schedule 33 rates
11 and applicable riders:

12	Off-Project Energy Charge: 10,760 kWh x \$0.007500 =	\$80.70
13	Public Purpose: 3% of Revenues =	\$2.42
14	BPA Energy Discount: 10,760 kWh x (\$0.004880) =	(\$52.51)
15	Low Income Assistance: 10,760 kWh x \$0.000330 =	<u>\$3.55</u>
16	Total	\$34.16

17 **Q IF PACIFICORP'S PROPOSED CHARGES ARE ACCEPTED IN THIS CASE,**
18 **WHAT PERCENTAGE INCREASE WOULD THE HYPOTHETICAL CUSTOMER**
19 **EXPERIENCE AS A RESULT OF THOSE PROPOSED CHARGES?**

20 A If PacifiCorp's proposed charges are accepted, this hypothetical Off-Project customer
21 would experience an **increase of 96%** above its current total charges. Other
22 customers who likely would be subject to the provisions of SB 81 would experience
23 an increase of approximately 140% above the current charges under PacifiCorp's
24 proposals.

25 **Q ARE PACIFICORP'S PROPOSED CHARGES IN COMPLIANCE WITH SB 81?**

26 A No. SB 81 requires an electric company to mitigate rate increases to qualifying
27 customers such that no increase is greater than 50%. Further, SB 81 provides that
28 the "commission shall: (a) include the total charges for electricity service, including all

special charges and credits other than the rate credit provided under this section” for purposes of determining the increase in the cost of electricity. Consequently, for this hypothetical customer with current total charges of \$34.16, its new charges could not exceed 1.5 times this amount, or \$51.24. PacifiCorp’s proposed 96% increase is almost double the 50% increase limit established by SB 81.

Q WHAT LEVEL OF OFF-PROJECT ENERGY CHARGE WOULD RESULT IN AN INCREASE OF 50%?

A Assuming PacifiCorp’s proposed Schedule 98 credit of \$0.00568, the Off-Project energy charge could not exceed \$0.00981 per kWh:

Off-Project SB 81 Energy Charge: 10,760 kWh x \$0.00981 =	\$105.56
Public Purpose: 3% of Revenues =	\$3.17
BPA Energy Discount: 10,760 kWh x (\$0.005680) =	(\$61.12)
Low Income Assistance: 10,760 kWh x \$0.000330 =	<u>\$3.55</u>
Total	\$51.16

Q PACIFICORP’S BILLING EXAMPLE ASSUMES THE RETENTION OF AN ALL-ENERGY RATE DESIGN FOR THE SCHEDULE 33 CUSTOMERS. DO YOU AGREE WITH THIS PROPOSAL?

A Yes. While I disagree with PacifiCorp’s proposed Off-Project energy rate of \$0.01125 per kWh since that rate would exceed 50%, I do agree with the Company that any proposed new rate should continue to be designed on an energy-only basis. I concur with Mr. Griffith that this rate design would be easy to understand for customers and, if properly designed, would reflect the intent of SB 81.

PacifiCorp's Treatment of Rate Credits in this Proceeding Is in Error

Q PACIFICORP CLAIMS THE COST OF PROVIDING RATE CREDITS FOR KLAMATH BASIN CUSTOMERS SHOULD BE SPREAD EQUALLY AMONG ALL OTHER OREGON CUSTOMERS. DO YOU AGREE?

A If we were still in the midst of the rate design portion of UE 170, I would agree that the cost of the credits would be spread to all the other customers. However, the circumstances of this case are unique and, as such, there are no additional rate credits to be spread among all the other Oregon customers.

Q PLEASE EXPLAIN.

A When PacifiCorp filed its case in November 2004, it sought approval to move all Schedule 33 customers to Schedule 41 and imputed additional base rate revenues at Schedule 41 rates in effect as of November 2004. PacifiCorp calculated that Schedule 33 customers would pay \$7,708,830 when moved to Schedule 41 tariff. PPL/1203, Griffith/8. This was an increase of \$7.1 million from the present Schedule 33 rates:

Schedule 33 Revenues based on Schedule 41 Rates:	\$7,708,830
Current Schedule 33 Revenues:	<u>\$604,073</u>
Difference:	\$7,104,757

In the Fourth Partial Stipulation, PacifiCorp's request for an increase of \$102 million was increased by \$7.187 million in recognition of retaining Schedule 33 customers at their current base revenues. Order No. 05-1050, Appendix E, page 14, Adjustment P-5.² In other words, the parties agreed to remove the issue of whether or not to change rates paid by Klamath Basin irrigators from the earlier portion of the

² Note that Item P-6 is labeled as "USRB/UKRB Rate Base Adjustments Klamath Irrigators" and effectively reduces PacifiCorp's increase by \$1.364 million. This separate item relates not to irrigators' rates, but to certain rate base issues raised by these intervenors during the course of the proceeding.

proceeding and resolve it by separate order. The Order goes on to explain the parties' suggestion:

[T]he parties suggest that the Commission use the current historic contract rates, set forth in Schedule 33, as interim rates for these irrigation customers when setting PacifiCorp's revenue requirement in the general rate proceeding. The parties further agreed that, once a Commission decision is made regarding the rates for the Klamath Basin irrigators, PacifiCorp should spread any revenue requirement impact of that decision to other customer classes through an adjustment to its rate spread/rate design.

Order No. 05-1050 at 12.

Q DID THE COMMISSION AGREE WITH THE PARTIES' PROPOSAL?

A Yes. The Commission agreed and adopted the parties' proposal. The Commission noted that "Once a decision is made regarding the rates for the Klamath basin irrigators, we will direct PacifiCorp to spread any revenue requirement impact arising from that decision to other customer classes through a revenue-neutral adjustment to its rate spread/rate design."

Q WHAT AMOUNT OF REVENUE INCREASE DID THE COMMISSION ALLOW IN ORDER NO. 05-1050?

A The Commission allowed PacifiCorp to increase rates by \$25,875,000. Order No. 05-1050, Appendix H, page 1 of 9. Total Oregon revenues were set at \$834,126,000 and rates were designed to recover this amount.

Q HOW WERE RATES ESTABLISHED FOR SCHEDULE 33 AS A RESULT OF PACIFICORP'S \$26 MILLION INCREASE?

A Schedule 33 revenues were left at historical levels, which recovered \$604,000. The rates of all other customer classes allow PacifiCorp to recover the remaining \$833,525,000.

1 **Q WHAT AMOUNT OF ADDITIONAL REVENUE ABOVE THE \$26 MILLION**
2 **ALLOWED IN ORDER NO. 05-1050 SHOULD BE GRANTED TO PACIFICORP IN**
3 **THIS PROCEEDING?**

4 **A None.** This proceeding deals with establishing rates for Schedule 33. It is a revenue-
5 neutral proceeding in that any additional amounts collected from Schedule 33
6 customers must be credited back to the other Oregon customers.

7 **Q SINCE ALL CUSTOMERS ARE ALREADY PAYING THE FULL DIFFERENCE OF**
8 **THE IMPUTED REVENUES, DOES IT MAKE SENSE TO ASSESS AN**
9 **ADDITIONAL RATE SURCHARGE TO OREGON RATEPAYERS AS A RESULT**
10 **OF THE OUTCOME OF THIS CASE?**

11 **A Absolutely not.** The additional revenues provided by any increase above the interim
12 rates should be credited, not surcharged to other Oregon customers. To do
13 otherwise would be tantamount to providing PacifiCorp a revenue increase greater
14 than \$26 million as a result of adjusting the interim rates.

15 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

16 **A Yes.**

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/501

Klamath Off-Project Water Users, Inc.

February 6, 2006

KOPWU Data Request 11.1

Reference PPL/1702, Anderberg/3:

- a. Please explain how Mr. Anderberg arrived at \$825,386,000 for line 5, column J, Total Revenue From Classes Included in MC Study.
- b. Please fully explain why line 18, Total Oregon Situs Revenue, should increase from \$841,231,000 in the compliance filing in UE 170 to \$848,850,000 in PPL/1702, Anderberg/3.
- c. Please fully explain why line 22, Total Oregon Revenue, should increase from \$834,126,000 in the compliance filing in UE 170 to \$841,746,000 in PPL/1702, Anderberg/3.
- d. Please confirm or deny that revenue from USBR is included in the MC Study on Line 5. If denied, please explain. If confirmed, please explain why USBR Billed Revenue of \$604,000 (line 13) is claimed as "Other Revenues" if that revenue was included in line 5.
- e. In Order No. 05-1050 in UE 170, Exhibit H, Adjustment P-5 allowed for a reduction of \$7,010,000 in Other Revenues (page 7, line 4) that resulted in a revenue requirement increase of \$7,187,000. In light of this adjustment allowed in the Order, please explain the basis for an additional \$7.7 million of revenue contained in PPL/1702, page 3 when compared to the compliance filing.

Response to KOPWU Data Request 11.1

- a. The \$825,386,000 is arrived at by adding Schedule 33 customers at tariff rates, \$7,620,000, to the Revenue From Classes Included in MC Study in the compliance filing, \$817,766,000. Schedule 33 customers were excluded from the compliance filing. In this Study, Schedule 33 customers have been included at tariff on either Schedule 41 or Schedule 48.
- b. The increase is due to inclusion of Schedule 33 customers at tariff rates. See response to part a. above.
- c. See response to parts a. and b. above.
- d. Revenue from USBR is included on Line 5, column J of Exhibit PPL/1702, Anderberg/3. The USBR Billed Revenue of \$604,000 shown on line 13 should have been removed from the reconciliation in arriving at Total Oregon Situs Revenue. However, this does not change the Revenue from Classes Included in the MC Study since the USBR customers were not included in the MC Study in the UE 170 compliance filing.
- e. Exhibit H, Adjustments P-5 and P-6 in Order No. 05-1050 removed the USBR/UKRB imputed revenues and associated Oregon allocated expenses that had been included in the Company's original filing. These adjustments had the effect of completely removing all USBR/UKRB revenues from rates. Exhibit PPL/1702, page 3 shows the revenue

UE-170/PacifiCorp
February 1, 2006
KOPWU 11th Set Data Request 11.1

requirement impact of including these customers at cost of serviced based rates.

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/502

Klamath Off-Project Water Users, Inc.

February 6, 2006

UE-170/PacifiCorp
February 1, 2006
KOPWU 11th Set Data Request 11.4

KOPWU Data Request 11.4

Please identify each PacifiCorp rate schedule under which customers on that schedule cover a full range of usage from zero to the maximum usage under the schedule.

Response to KOPWU Data Request 11.4

All Oregon rate schedules contain customers that cover a full range of usage.

**Before the
Public Utility Commission
of Oregon**

In the Matter of the Request of

PACIFIC POWER & LIGHT (dba PacifiCorp)

**Request for a General Rate Increase in the Company's
Oregon Annual Revenues.**

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Docket No. UE 170

Exhibit

KOPWU/503

Klamath Off-Project Water Users, Inc.

February 6, 2006

Attachment KOPWU 10.2
Pacific Power
Bill Example for Hypothetical Schedule 33 Off-Project Customer

Customer: 3 Phase, Secondary Delivery, Original Off Project Contract rate of \$0.0075 per kWh

Service Period:
From Apr 17, 2006
To May 17, 2006

Amount Used This Month
10,760 kWh
147 kW
77 kVar

New Charges:	Units	Cost Per Unit	Charge
Off-Project SB81 Energy Charge	10,760 kWh	0.0112500	121.05
Public Purpose %		0.0300000	3.63
BPA Energy Discount (Sch 41/200 Energy Chg would be \$602.78) (Sch 41 Rectv Pwr Chg would be \$50.05) (Sch 41 Est Nov Load Sz Chg \$1080.00) (Sch 41/200 Pub Pur Chg would be \$27.11) (Sch 41 BPA Eng Disc would be -\$110.40)	10,760 kWh	-0.0056800	-61.12
Low Income Assistance	10,760 kWh	0.0003300	3.55
Total New Charges			67.11

(1.5 times the original contract rate)

(Proposed Klamath BPA discount)

=10,760 * \$0.05602 (kWh times Schedule 41 plus Schedule 200 net Energy rates)

=18 * \$0.65 (Excess kVar times Schedule 41 kVar Charge)

=74 * \$10.00 + \$340.00 (Estimated Load Size times Schedule 41 November Load Size Charges)

=\$903.64 * 3% (Std Tariff Energy Chg plus Std Tariff Reactive Pwr Chg times Pub. Pur. Charge)

=10,760 * -\$0.01026 (kWh times Schedule 41 BPA Credit)

(Low Income Assistance charge would be the same under Schedule 33 and Schedule 41)