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# INTRODUCTION

**Q. Please state your name, business address, and present position with PacifiCorp d/b/a Pacific Power & Light Company (PacifiCorp or Company).**

A. My name is Andrea L. Kelly. My business address is 825 NE Multnomah Street, Suite 2000, Portland, Oregon 97232. I am employed by PacifiCorp as Senior Vice President.

## Qualifications

**Q. Briefly describe your education and professional experience.**

A. I hold a Bachelor’s degree in Economics from the University of Vermont and a Master of Business Administration in Environmental and Natural Resource Management from the University of Washington. After graduate school, I joined the Staff of the Washington Utilities and Transportation Commission (Commission). In 1995, I became employed by PacifiCorp as a Senior Pricing Analyst in the Regulation Department and advanced through positions of increasing responsibility. From 1999 through 2005, I led major strategic projects at PacifiCorp including the Multi-State Process and the regulatory approvals for the MidAmerican-PacifiCorp transaction. In March 2006, I was appointed Vice President of Regulation. In March 2012, I was appointed to my current role.

**Q. Were you personally involved in the negotiations related to the Klamath Hydroelectric Settlement Agreement (KHSA)?**

A. Yes. I was part of PacifiCorp’s core negotiating team for the KHSA.

## Purpose of Testimony

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

A. My testimony presents the Company’s request in this proceeding associated with adoption of depreciation lives for the rate base assets of the Klamath Hydroelectric Project (Project) under the KHSA. In support of the Company’s request, my testimony explains the Federal Energy Regulatory Commission (FERC) relicensing and settlement process that the Company followed for relicensing the Project, and demonstrates that the Company’s decision to enter into the KHSA was a prudent business decision as compared to the costs and risks of relicensing alternatives.

**Q. How is your testimony organized?**

A. My testimony is organized into the following seven sections:

* First, I present the cost elements that the Company has included in calculation of the revenue requirement in this proceeding;
* Second, I describe the Project and the benefits customers have derived and will continue to derive from the operation of the Project;
* Third, I provide an overview of the process to obtain a new operating license from FERC;
* Fourth, I describe the relicensing and settlement process undertaken to date to resolve the expiration of the Project license;
* Fifth, I explain the significant activities related to the relicensing and settlement process costs;
* Sixth, I provide an overview of the KHSA and present the Company’s economic analysis demonstrating that the Company’s decision to execute the KHSA is in the best interest of customers; and
* Seventh, I describe the progress to date of the implementation of the KHSA.

## KHSA Cost Elements Included in Revenue Requirement

**Q. What cost elements related to the KHSA are included in revenue requirement in this case?**

A. First, the Company is including a full year of amortization of the relicensing and settlement process costs that were included in rate base in the Company’s last rate case, docket UE-111190 (2011 Rate Case). Second, the Company is seeking the Commission’s approval of a depreciation schedule that would depreciate all costs associated with the Klamath facilities on a straight-line basis so the net book value reaches zero by December 31, 2019, to coincide with the target date for decommissioning and facilities removal.

**Q. Please describe the ratemaking treatment of the relicensing and settlement process costs.**

A. As mentioned above, the relicensing and settlement process costs were included in Washington’s rate base in the 2011 Rate Case. Due to test year conventions, the asset was included for only a single month (December 2010) when calculating the average of monthly averages balance for the historic test period of the 12 months ended December 2010. In this proceeding, the asset is included for the full test period and amortized on a straight-line basis through December 31, 2019. My testimony provides an overview of the significant multi-year activities related to the relicensing and settlement process costs.

**Q. Why is it in customers’ best interest for the Commission to adopt a new depreciation schedule for the Klamath-related rate base in this proceeding?**

A. Adoption of a new depreciation schedule will ensure that the Klamath-related rate base will be depreciated consistent with the terms of the KHSA, which targets a January 1, 2020, date for decommissioning and facilities removal. If the Commission waits to adopt a new depreciation schedule and the dams are removed beginning in 2020, the burden on customers could be substantial. In addition, the Company began depreciating the Klamath assets on the new schedule beginning January 1, 2011. Due to the time between rate case test periods, Washington customers will benefit from two full calendar years of accelerated depreciation of the assets without the cost increase included in rates. If the Commission fails to adopt a new schedule in this proceeding, that depreciation would need to be reversed to the detriment of customers. Changing the depreciation schedule is also an action that can be reviewed and revised in the future if circumstances related to the Project change.

## Overview of the Project

**Q. Please describe the Project.**

A. The Project is a 169 megawatt hydroelectric facility on the Klamath River in southern Oregon and northern California. It consists of eight developments, including seven powerhouses, five mainstem dams on the Klamath River (Iron Gate, Copco No. 1, Copco No. 2, J.C. Boyle, and Keno), as well as two small diversion dams on Spring Creek and Fall Creek, tributaries to the Klamath River. The Project as currently licensed includes the East Side and West Side generating facilities, which use water diverted by the Link River Dam, a facility owned by the Bureau of Reclamation that regulates the elevation and releases of water from Upper Klamath Lake and that is not included in the Project. The Project also includes Keno Dam, which has no hydroelectric generation facilities, but which serves to regulate water levels in Keno Reservoir as required by the Project license. The Company operates all eight developments under one FERC license (FERC Project No. 2082). The Project is partially located on federal lands administered by the Bureau of Land Management and the Bureau of Reclamation. The first hydroelectric development, Fall Creek, was completed in 1903, and Iron Gate, the last hydroelectric development, was completed in 1962. Keno Dam was completed in 1968. A map of the Project is provided as Exhibit No.\_\_\_(ALK-2).

**Q. Generally, what benefits does the Project provide to PacifiCorp’s customers?**

A. Since its completion, the Project has provided customers with reliable, low-cost power. As currently operated in compliance with the limitations of the existing license, the Project is a source of energy, capacity, and reserves. Unlike most other sources of generation, hydro projects also provide an additional environmental benefit because they are emissions-free. In addition, the generating units of the Project located in California qualify as renewable energy resources for the California Renewables Portfolio Standard.

## Overview of Federal Relicensing

**Q. Please provide an overview of the federal relicensing process.**

A. Under the Federal Power Act (FPA), FERC has the exclusive authority to license nonfederal hydropower projects on navigable waterways. Original licenses are issued for a term of 50 years, after which a licensee may seek relicensing. FERC issues subsequent licenses for a term of not less than 30 years or more than 50 years, with FERC deciding the length of the license. FERC regulations require that a licensee file a Notice of Intent to apply for a new license five and a half years prior to license expiration. On average, licensing takes eight to 10 years, and some applications have taken as long as 30 years. During the relicensing process, FERC typically allows projects to continue operating on annual license extensions under the same terms and conditions once the old license has expired. This is the case with the Project at this time, as the original project license expired in 2006. The licensing process requires FERC to consider the economic, engineering, environmental, and socioeconomic aspects of the project. In issuing licenses, FERC must give “equal consideration” to environmental values and adequately protect and mitigate the effects of the Project based on environmental and other concerns. In doing so, FERC attaches conditions to the license.

**Q. What roles do state and federal resource agencies play in the process?**

A. State and federal fish and wildlife agencies review applications and submit comments to FERC regarding the impact the Project may have on the environment. Based on those impacts, state and federal agencies recommend conditions to FERC to place on the license to mitigate the potential impacts. The FPA gives certain federal agencies authority to require FERC to include the agency’s conditions on the license. For example, the Secretaries of Commerce and the Interior have the authority to require applicants to install fishways (ladders and screens) at projects, and to require applicants to provide minimum instream flows and reduce the variability of powerhouse flows, which can impact the operational flexibility of a hydroelectric project.

**Q. What options does an applicant have if the mandatory conditions make the project uneconomic?**

A. The applicant has limited options. The applicant may accept the uneconomic license, decommission the facility, or pursue litigation and challenge the mandatory conditions. The applicant has the option of selling the facility as well. Decommissioning may involve anything from mothballing the generating facilities to full removal and site restoration. Because of the potential risks and uncertainties associated with decommissioning and litigation, those options are seldom favored. Consequently, applicants usually try to manage uncertainty by settling issues among the various stakeholders before licensing is completed or by negotiating acceptable decommissioning outcomes.

**Q. Other than the FPA, what other laws must FERC take into consideration when granting licenses?**

A. Because licensing is a “federal action,” FERC’s action on the application must be evaluated under a host of federal laws: the Clean Water Act (CWA), the Coastal Zone Management Act, the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Fish and Wildlife Coordination Act, and the National Historic Preservation Act, among others. These laws add significant time and expense to the application process.

The Company has sought CWA Section 401 certifications for the Project from both Oregon and California. In addition, ESA considerations are present at the Project due to the presence of threatened coho salmon in the Klamath River below Iron Gate dam, and endangered Lost River and shortnose suckers that predominantly reside in Upper Klamath Lake and its tributaries but utilize habitat within the Project boundary.

**Q. Does FERC offer more than one relicensing process?**

A. Yes. At the time the license application for the Project was developed and filed—the final license application was submitted to FERC in February 2004—applicants could use either traditional or alternative licensing processes. During the process of developing the license application for the Project, FERC developed an additional licensing process called an integrated licensing process, which became the default process for relicensing in 2005. Applicants may also enter into a negotiated settlement at any time. The Company initiated licensing under the traditional approach for the Project, and has pursued settlement to resolve the issues related to the Project relicensing.

**Q. Please provide a more detailed description of the traditional FERC relicensing process.**

A. The traditional process involves three stages of consultation. In the first stage, the applicant distributes an Initial Consultation document, which explains the project and its operation and environmental setting to federal and state agencies, tribes, non-governmental organizations (NGOs), community interest groups, and other stakeholders. Following the consultation document, the stakeholders meet and visit the site. Thirty days after the meeting, comments and additional study recommendations are due to the applicant. Stage one ends when a set of resource-by-resource study plans and stakeholder consultation documentation have been completed and provided to FERC.

**Q. What takes place in the second stage of consultation?**

A. In the second stage, the applicant conducts the proposed studies and prepares a draft license application, which it distributes to FERC and to interested agencies, tribes, and stakeholders for review and comment. At this stage, agencies routinely request additional studies, which can be costly and time-consuming. The applicant must provide FERC with a written summary of how the Company resolved any disagreements with agencies and others regarding the studies to be conducted and included in the license application. The second stage ends when FERC accepts a final application for filing.

**Q. Please describe the third stage.**

A. In the third stage, FERC solicits initial comments and preliminary terms and conditions from resource agencies, tribes, and stakeholders, and gives notice that the project is ready for environmental analysis under NEPA. FERC may require additional information from the applicant to address those comments. FERC next initiates its detailed environmental and engineering review and solicits final comments, recommendations, terms and conditions, and mandatory prescriptions. From all of this information, FERC prepares an Environmental Assessment or Environmental Impact Statement taking into account comments, responses and conditions. Ultimately, FERC issues a license order describing both how the project will be operated during the next license term, and what environmental and other enhancement obligations the licensee must fulfill. Those obligations include the mandatory terms and conditions provided by the Secretaries of Commerce, Agriculture and Interior. In addition, if relevant, FERC appends any conditions associated with CWA Section 401 water quality certifications that have been issued for the project by state agencies.

# OVERVIEW OF PROJECT RELICENSING AND SETTLEMENT PROCESS

## Relicensing Process

**Q. Please describe the relicensing process to date for the Project.**

A. PacifiCorp filed a Notice of Intent to relicense and issued its First Stage Consultation Document on December 15, 2000. In an attempt to arrive at consensus-based approaches to the licensing process with the various stakeholders involved, PacifiCorp pursued a “traditional-plus” licensing approach in which the traditional process was followed with a concerted effort to solicit stakeholder input and agreement on study plans before they were submitted to FERC for review. This “traditional-plus” approach resulted in a significant number of stakeholder meetings to review proposed study plans, gather input, and attempt to achieve consensus.

**Q. Please explain stakeholder participation in the relicensing process for the Project.**

A. Public meetings for the relicensing process began in January 2001 and continued through 2002 and 2003. The final license application was submitted to FERC in February 2004. FERC issued its first scoping document for the environmental review process in April 2004, and scoping was completed in May 2005. FERC issued notice that the project was ready for environmental analysis on December 28, 2005. The original FERC license expired February 28, 2006, and annual licenses have been issued by FERC since that time.

Federal agencies—the National Marine Fisheries Service, U.S. Fish and Wildlife Service, Bureau of Reclamation, and Bureau of Land Management—issued draft terms and conditions for a new license in March 2006. The draft terms called for full volitional fish passage at all Project developments as well as other license conditions to benefit environmental resources that would reduce power generation and increase the costs of a new license. That same month, the Company submitted applications to California and Oregon for CWA Section 401 water quality certifications of the Project. As a result of the Energy Policy Act of 2005, the Company had the opportunity to challenge the underlying facts behind the draft agency terms and conditions and propose alternative licensing conditions. The Company filed alternative license conditions with FERC that the Company believed provided similar environmental benefits as the draft agency terms and conditions but at less cost and loss in power production from the Project. The Company’s filing also challenged material facts relied upon by the agencies. A trial-type hearing was conducted on these issues of material fact underlying the agency terms and conditions in August 2006, and an administrative law judge issued a decision in September 2006. Also in September 2006, FERC issued a draft Environmental Impact Statement for Hydropower License.

Incorporating the findings of the trial-type hearing, the agencies issued modified terms and conditions for a new license in January 2007. FERC then initiated ESA consultation for a new license in March 2007, and the National Marine Fisheries Service and U.S. Fish and Wildlife Service issued final biological opinions in December 2007. To initiate analysis of the project under the California Environmental Quality Act (CEQA) to obtain CWA Section 401 certification, the Company signed a memorandum of understanding with the California State Water Resources Control Board in September 2007. FERC completed its environmental analysis of the project and released its Final Environmental Impact Statement (FEIS) for Hydropower License in November 2007.

**Q. Please describe the relicensing process after the Company filed its applications for CWA Section 401 certification of the Project.**

A. Since filing its applications in March 2006 for CWA Section 401 certification with California and Oregon, PacifiCorp has been implementing water quality studies and monitoring in order to improve water quality conditions in the Project reservoirs and in the Klamath River downstream of Project facilities. The result of these study and planning efforts will help the states of California and Oregon assess whether the Project can meet applicable water quality standards. In June 2009, the California North Coast Regional Water Quality Control Board issued a draft Total Maximum Daily Load (TMDL) report for the Klamath River, and in February 2010, the Oregon Department of Environmental Quality released its draft TMDL for the Klamath River in Oregon. The TMDLs prescribe nutrient, temperature, and dissolved oxygen requirements in the river that must be attained by Project facilities. PacifiCorp has been actively involved in reviewing the TMDLs since they will ultimately inform the conditions that may be imposed on the Project through the CWA Section 401 certification processes.

**Q. Absent the settlement under the KHSA, what steps remain to be completed in the relicensing process?**

A. In order for FERC to issue a new Project license, CWA Section 401 water quality certification must first be completed by the states of California and Oregon. The conditions of the CWA Section 401 certification would then be incorporated into the new FERC license for the Project. PacifiCorp has CWA Section 401 water quality certification applications pending in both states. However, pursuant to the KHSA, CWA Section 401 certification of the Project is being held in abeyance while the Secretary of the Interior conducts environmental review and analysis to inform a determination as to whether removal of the four mainstem Klamath River dams owned by PacifiCorp will advance restoration of the salmonid fisheries of the Klamath basin and is in the public interest and should proceed.

## Settlement Process

**Q. Please describe how settlement is used in the FERC relicensing process.**

A. Due to the complex nature of relicensing proceedings and the many issues and stakeholders involved in the process, many relicensing proceedings are resolved by settlement. As mentioned before, a settlement between the parties to a relicensing proceeding can be entered at any time while the relicensing process is ongoing. Settlements are encouraged by FERC and recent changes to the relicensing process alternatives have been made to encourage applicants and stakeholders to reach consensus on the issues related to project relicensing so the parties can reach settlement. In fact, PacifiCorp has pursued settlement for the majority of its recently completed hydro relicensing proceedings, including the North Umpqua, Bear River, and Lewis River projects. In addition, settlements have been entered among PacifiCorp, agencies, and stakeholders to decommission the Condit, American Fork, and Powerdale hydro projects after those projects began the traditional FERC relicensing process.

**Q. Please describe the settlement process to date for the Project.**

A. For the Project, PacifiCorp initiated settlement discussions in October 2004 with stakeholders, following submittal of the license application. These settlement discussions were entered into by the Company to identify the interests of the stakeholders so those interests could be addressed in a settlement that would preserve the economic value of the Project under a new long-term FERC license to operate the facilities. The first mediated settlement meeting was conducted in January 2005. Settlement meetings proceeded through 2005 and mid-2006. At that point, Project stakeholders decided that they wanted to turn their attention to resolving basin-wide natural resource issues between themselves, without PacifiCorp’s involvement. PacifiCorp then discontinued its participation in settlement discussions while those stakeholders continued to meet. PacifiCorp did not participate in these negotiations because resolution of these broader issues was beyond the scope of the relicensing proceeding and did not relate directly to operation of the Project. This group of stakeholders, after months of negotiations, released the draft Klamath Basin Restoration Agreement (KBRA) in January 2008. The KBRA is intended to resolve issues of water allocation and resource management in the Klamath Basin, provide for habitat restoration, and called for removal of PacifiCorp’s mainstem hydroelectric dams.

**Q. Is PacifiCorp a signatory to the KBRA?**

A. No. PacifiCorp is not a party to the KBRA. PacifiCorp has no responsibilities under the KBRA and customers will bear no costs associated with the KBRA.

**Q. Please describe settlement efforts related to the Project after the release of the KBRA.**

A. Following release of the KBRA, active settlement negotiations were resumed among PacifiCorp, the federal government, and the states of California and Oregon. Other key stakeholders joined the settlement negotiations, resulting in an Agreement in Principle (AIP), which was released on November 13, 2008. The AIP laid out a framework for resolution of the issues related to relicensing of the Project including the potential decommissioning and removal of PacifiCorp’s four main stem dams on the Klamath River—J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate. As a result of discussions with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, PacifiCorp also developed an Interim Conservation Plan to provide benefits to ESA-listed aquatic species during the period of interim operations before potential dam removal or the
re-establishment of fish passage through the Project pursuant to project relicensing.

Following the release of the AIP, PacifiCorp pursued further negotiations with the parties to the AIP—the federal government, California, and Oregon—as well as an expanded group of stakeholders, agencies, and other interested parties to complete a final settlement agreement for the Project. On February 18, 2010, the KHSA was executed by over 30 parties, including PacifiCorp, the Secretary of the Interior, governors from the states of Oregon and California, Native American Tribes, and parties representing counties, irrigation districts, fishermen, environmentalists, and other organizations. A detailed chronology of key points in the Klamath relicensing and settlement process is included as Exhibit No.\_\_\_(ALK-3).

## Costs and Benefits of Relicensing

**Q. Please describe how pursuing relicensing and settlement has provided customer benefits.**

A. The Company has pursued relicensing to preserve economic benefits to its customers from the Project. Had the Company elected not to pursue relicensing of the Project, and assuming no willing buyer, FERC would have required the Company to submit an application for “surrender” of the Project license and decommissioning of the generating facilities. Doing so would have exposed the Company’s customers to the uncertainties related to potential decommissioning and removal of the facilities, while necessitating that the Company’s customers pay for the immediate replacement of the energy provided by the Project. Throughout the relicensing and settlement process, PacifiCorp has taken the position that decommissioning and removal of the Project without sufficient protections against the associated costs, risks, and liability is not in the best interests of the Company, or its customers. To that end, the Company has pursued settlement in a manner that will provide those protections. In addition, the relicensing and settlement process has allowed customers to continue to benefit from the Project during the period between the expiration of the Project license in March 2006 and the potential removal of the facilities.

**Q. How much has the Company incurred in the relicensing and settlement process?**

A. The process was completed at a total cost of approximately $74.1 million on a system-wide basis as of December 31, 2010.

**Q. What are the major cost categories for the process costs?**

A. For total costs on a system-wide basis through 2010, approximately 36 percent of the costs ($26 million) derive from outside expert consulting services. These services included the development of the detailed scientific information necessary to prepare the first stage consultation document and the costs to consult with stakeholders and prepare detailed study plans for the various resource areas investigated as part of the relicensing process. These services included the execution of the vast array of technical studies required and the costs to prepare the license application. Examples of the studies and data collected include:

* Complete aerial photography and mapping of the Project;
* Bathymetric and sediment studies of Project reservoirs;
* Environmental resource investigations;
* Wildlife and vegetation surveys;
* Geomorphology studies;
* Biological and engineering studies of various fish passage alternatives, fisheries modeling and habitat assessment;
* Studies of potential Project operational enhancements;
* Historic and cultural resources investigations;
* Socioeconomic studies;
* Recreation surveys and planning;
* Extensive water quality monitoring and development of a Project water quality model and associated water quality modeling studies;
* Development of cost estimates for potential protection, mitigation, and enhancement (PM&E) measures likely to be required in a new license.

These costs, plus an additional $9 million of legal costs, also included license application preparation, CWA Section 401 application costs and related studies, ESA consultation and documentation costs, legal review and legal costs associated with the Company’s challenge to agency terms and conditions, responses to comments in relation to the license application, and required analysis of the Project in compliance with the California Environmental Quality Act. Finally, this included costs associated with the settlement process, facilitator and mediator services, communications, and other services.

The amount of information necessary to be developed for the preparation and support of hydroelectric license applications is very significant. The Project license application and associated study documentation and filings produced by the Company require in excess of eight feet of shelf space. This is similar to the shelf space devoted to the Company’s license application for the recently relicensed North Umpqua project.

Materials, labor and associated expenses accounted for approximately $11 million—or approximately 14 percent of total costs. These costs included labor and associated costs for the Company’s project management, technical leads, environmental scientists, and administrative staff. The remaining costs are related to property taxes paid against accrued relicensing costs and allowance for funds used during construction (AFUDC).

**Q. Has the complexity of the Project impacted the overall level of process costs?**

A. Yes. As detailed earlier in my testimony, the relicensing process is time-consuming, complex, and requires the expenditure of significant staff labor, outside technical support, and legal services to prepare an application and defend and prosecute that application through the regulatory process. The Project has been the most complex and contentious relicensing proceeding the Company has undertaken for its many hydroelectric projects. Even so, the Project relicensing costs are comparable with another recent relicensing effort by the Company on the North Umpqua River. At the conclusion of that relicensing process in 2005, the total cost was approximately $55.1 million. In that case, the relicensing and settlement process spanned ten years, from 1991 to 2001. The settlement parties were fewer in number (in part because the project is only located in one state), and included: U.S. Forest Service, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Bureau of Land Management, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, and Oregon Water Resources Department.

## The KHSA and Supporting Economic Analysis

**Q. Please provide a more detailed description of the KHSA.**

A. The KHSA provides for the transfer of the Project to a Dam Removal Entity (DRE) no earlier than 2020. The KHSA calls for the Secretary of the Interior to conduct further studies and environmental review and to issue a determination regarding whether dam removal should proceed. Prior to the Secretary’s determination, key milestones called for in the KHSA must occur, including the passage of federal legislation to enact key provisions of the KHSA and to provide protection for the Company and its customers from liabilities related to dam removal. Before transfer of the Project facilities to the DRE, PacifiCorp will continue to operate the facilities and its customers will continue to benefit from the low-cost power produced by the facilities. Prior to dam removal, the KHSA requires the Company to implement a number of interim measures to mitigate environmental impacts of the Project in the Klamath Basin. A copy of the KHSA is provided as Exhibit No.\_\_\_\_(ALK-4).

**Q. Please provide an overview of the Company’s approach to the negotiations that led to the execution of the KHSA.**

A. Throughout the negotiations, the federal government and the states of Oregon and California have expressed a strong policy preference that the Company’s dams on the Klamath River be removed. In response, the Company outlined four core principles that guided its negotiation strategy related to a path that could lead to dam removal:

1. Protect utility customers from uncertain costs of dam removal;
2. Transfer dams to a third party for removal;
3. Protect utility customers from liabilities of dam removal; and
4. Ensure that utility customers continue to benefit from the low-cost power of the dams until the dams are removed.

**Q. Does the KHSA deliver the Company’s four core principles?**

A. Yes. The terms of the KHSA deliver each of these elements for the benefit of PacifiCorp’s customers. As such, the KHSA provides a more certain and less risky path forward for customers.

**Q. How does the KHSA protect customers from uncertain costs of dam removal?**

A. The KHSA contains a $200 million cap on the customer contribution to the costs of dam removal and also provides, with the passage of necessary federal legislation conforming to the terms of the KHSA, liability protection that will shield customers from additional costs related to dam removal should ultimate costs exceed those laid out within the KHSA.

**Q. Will Washington customers bear any costs associated with the customer contribution to the costs of dam removal?**

A. No. The customer contribution will be shared between Oregon and California customers only. This makes the economics of the KHSA even more favorable to Washington customers as compared to other potential outcomes.

**Q. Were there any other key considerations for PacifiCorp as it negotiated the terms of the KHSA?**

A. Yes. PacifiCorp negotiated the terms of the KHSA in a manner that resulted in a fair and balanced outcome to customers and other stakeholders. As discussed in detail below, under relicensing, the status quo for the Project isn’t an option. As such, the costs to customers under the KHSA were compared against a baseline relicensing scenario throughout the negotiations. This analysis ensured that customers would be expected to be no worse off under the KHSA as compared to a conservative estimate of relicensing costs. This analysis, combined with the significant risk-reducing elements of the KHSA, ensures that the KHSA is in the interest of PacifiCorp’s customers.

**Q. Please describe PacifiCorp’s general approach to the economic analysis supporting its decision to enter into the KHSA.**

A. Prior to entering into the KHSA in February 2010, PacifiCorp compared the cost to customers of the KHSA with the costs to customers under a conservative relicensing scenario. The costs to customers of relicensing are uncertain. As such, the Company developed a relicensing case against which the economics of the KHSA were compared. The relicensing case relies heavily on the costs and data developed during the relicensing process and included within the FERC FEIS.

**Q. Please provide an overview of the Company’s estimated costs to relicense the Project.**

A. As detailed on page 5 of Confidential Exhibit No.\_\_\_(ALK-5C), the Company’s estimated costs to relicense the Project include in excess of $400 million in capital and in excess of $60 million in operations and maintenance (O&M) costs over a 40-year license term. Of these capital costs, the majority is related to implementation of aquatic resource PM&E measures. These costs are related to providing volitional upstream and downstream fish passage at all Project developments, which is required by the mandatory agency terms and conditions. Additional funding would be required for terrestrial resource PM&E measures, recreational resource PM&E measures, land use PM&E measures, and cultural resource PM&E measures. The remaining capital costs are for water quality improvements to address temperature and dissolved oxygen effects of the Project reservoirs and to address water quality concerns related to algae that are present in Project reservoirs. Consistent with PacifiCorp’s license application, the East Side and West Side developments would be decommissioned and removed.

The PM&E measures contained in the Company’s baseline relicensing scenario generally include those measures specified in the “Staff Alternative with Mandatory Conditions” alternative in the FERC FEIS. Because the CWA Section 401 water quality certification process for the Project is not yet complete, the water quality measures necessary to obtain a new license remain highly uncertain. Thus, the Company’s relicensing scenario includes measures that have been evaluated during the FERC process to address the water quality effects of the Project, as an estimate of what might be required.

In addition to the capital and O&M expenditures to implement the required PM&E measures, the relicensing scenario also reflects a 20 percent reduction in the energy that would be produced from the Project. This is due to the requirement to provide more water to bypassed reaches of the Klamath River, which makes less water available for generation. This most significantly impacts generation at the J.C. Boyle development, where compliance with mandatory agency terms and conditions on flows would reduce generation more than 40 percent. J.C. Boyle is by far the largest generation facility in the Project.

**Q. What information sources were used to derive these costs?**

A. The majority of the costs included in the Company’s analysis are in the FERC record and contained or referenced in the FEIS. Some costs were developed from PacifiCorp internal estimates and generation impact models. Given the uncertainty related to the costs to implement measures required to obtain CWA Section 401 water quality certifications from California and Oregon, water quality costs include measures explored during the relicensing proceeding to address Project-related water quality effects.

**Q. Please provide an overview of the Company’s assumed costs of implementing the KHSA.**

A. As detailed on page 6 of Confidential Exhibit No.\_\_\_(ALK-5C), the Company’s assessment of the costs of settlement includes approximately $9 million in capital costs and approximately $70 million in costs that would be characterized as O&M costs. The majority of the capital costs reflect the costs of interim water quality improvements and hatchery improvements. Increased funding for hatchery programs and ongoing hatchery production following dam removal represents approximately half of the O&M costs. Other funding requirements include restoration and study funding, lands and cultural resources funding, aquatic habitat enhancement, water quality monitoring and improvement costs. Implementation and management costs are also reflected in the O&M costs. Implementation costs also include the decommissioning of the East Side and West Side developments at a cost of approximately $3 million, and the $172 million dam removal customer surcharge.

**Q. How were these costs derived?**

A. The majority of the costs included in the Company’s assessment of settlement costs are derived from Appendices B, C, and D of the KHSA. These appendices list the interim measures that the Company must implement prior to dam removal. Many of the interim measures consist of capped funding obligations for specific resource areas such as hatcheries, aquatic habitat enhancement, water quality monitoring, water quality studies and improvements, and land management activities. Other costs for specific interim measures are estimates of what might be necessary to fulfill the obligation spelled out in the interim measure based on the costs to develop certain infrastructure or implement specific projects. As with the relicensing case, some costs are developed from the Company’s internal estimates and generation impact models.

**Q. How was the analysis structured?**

A. The analysis evaluated the Present Value Revenue Requirement (PVRR) of the stream of costs under the KHSA and compared it against the PVRR of the stream of costs under the baseline relicensing scenario. The analysis covered a 44-year period beginning in 2010—this equates to a 40-year license beginning in 2013. A more detailed overview of the primary assumptions and analytic approach is provided on page 1 through 3 of Confidential Exhibit No.\_\_\_\_(ALK-5C).

**Q. What did the analysis assume with respect to the costs of replacement power?**

A. In both scenarios, the Company assumed that lost generation would be replaced with renewable, non-carbon emitting resources. This was accomplished through the use of a forward price curve that contained a “carbon adder” as a reasonable proxy for the cost of renewable replacement power. As noted above, there is also lost generation under the baseline relicensing scenario due to operating restrictions that were analyzed in the FERC FEIS and that would be required to be contained in a new Project license.

**Q. How did the Company use the analysis to inform its negotiation strategy?**

A. As mentioned above, the Company was willing to agree to a set of financial commitments under the KHSA that did not exceed the cost estimates in the relicensing scenario. However, it was also important to the durability of the KHSA that the other settlement parties viewed the overall result as fair and balanced. If the PVRR of the KHSA was significantly below the baseline relicensing case, this durability would have been threatened.

**Q. Does the KHSA result in a fair and balanced outcome to the Company’s customers?**

A. Yes. Based on the results of this conservative analysis, the KHSA results in a PVRR that is below the cost of relicensing. This is shown in a summary of the Company’s economic analysis included on page 4 of Confidential Exhibit No.\_\_\_(ALK-5C). More importantly, customers are protected from the risks and liabilities that exist absent an agreement among the parties. As described on pages 1 through 3 of Confidential Exhibit No.\_\_\_\_(ALK-5C), the Company conducted additional sensitivity analyses related to these risks and customers were better off under a broad range of assumptions. In the end, the Company’s decision to enter into the KHSA was no different than any other business decision—customers are better off in terms of costs and risks under the KHSA when compared against the range of alternate scenarios.

**Q. What cost risks does relicensing present for customers?**

A. The risk of increasing costs is one risk relicensing presents for customers. The PM&E measures included in the Company’s assessment of relicensing costs are based on the best estimates available as developed during the relicensing proceeding several years ago. As such, there is always a risk that costs for PM&E measures will escalate as measures are fully designed and constructed. This represents a risk to customers since a new license would prescribe the construction of certain facilities to mitigate project effects and establish fish passage regardless of the ultimate cost of those measures.

 The cost of additional PM&E measures is another risk relicensing presents for customers. While disputed, agencies maintain that they can reserve authority to require additional mandatory PM&E measures to address changed environmental conditions or the potential ineffectiveness of required PM&E measures to attain the desired benefits during the term of a project license. Thus, the potential exists for additional PM&E measures to be required during the term of a new Project license that would result in costs to customers in excess of currently known relicensing costs.

**Q. Do you believe that the costs assumed in the baseline relicensing scenario are conservative?**

A. Yes. Absent a settlement among parties, it is clear that the Company would continue to face significant opposition to relicensing. My observation is that, on balance, the stakeholders would attempt to drive the costs of relicensing as high as possible in an effort to make relicensing uneconomic.

**Q. How do these risks compare to the risks under the Company’s settlement scenario?**

A. Continuation down a path of relicensing presents far greater risks to customers than settlement under the KHSA. Under the KHSA, cost obligations are well defined and largely capped. For the interim measures that do not have a cost cap, the relative cost risk is much less than under relicensing given the extensive scope and costs associated with measures required under relicensing. Additionally, transferring the dams prior to removal, along with other key protection measures outlined in the KHSA, further minimize cost risk.

**Q. Has the Company undertaken a comprehensive analysis of the costs of Project removal?**

A. No. PacifiCorp has not attempted to complete a comprehensive analysis of the costs of Project removal given the many risks and uncertainties. Large uncertainties include the costs of sediment management, minimizing and mitigating environmental impacts related to removal, water quality and endangered species impacts, infrastructure impacts, and site re-vegetation and restoration costs. Many of these uncertainties can only be better defined through the removal design and permitting process. The KHSA is designed to shield customers from the risks and liabilities of dam removal while ensuring that a comprehensive science-based review is undertaken prior to the Secretarial Determination of whether removal of the dams is in the public interest.

**Q. Have any credit rating entities commented on the benefits of the KHSA?**

A. Yes. In an October 7, 2010 credit report for PacifiCorp, Standard & Poor’s cited the KHSA as a “Major Rating Factor” providing strength to PacifiCorp’s credit rating. The Standard & Poor’s assessment stated that “A settlement reached in February 2010 regarding the contentious Klamath hydro relicensing case has the potential to adequately address the company’s financial exposure if the project is decommissioned, which will not occur before 2020.”

**Q. What does this rating agency comment mean with respect to customer benefits?**

A. This means that PacifiCorp’s execution of the KHSA pursuant to the relicensing and settlement process has favorably impacted customers already by strengthening PacifiCorp’s credit rating. This ultimately translates to a lower cost of debt which benefits customers.

## Progress on KHSA Implementation

**Q. Since the KHSA was signed in February 2010, what progress has been made in implementing the KHSA?**

A. Significant progress has been made by the Company in implementing its obligations under the KHSA, and progress in implementing the regulatory and legislative actions necessary for the agreement to proceed has occurred as well. As required by the KHSA, the Company has petitioned both the California State Water Quality Control Board and the Oregon Department of Environmental Quality to hold in abeyance its applications before those agencies to certify the Project under Section 401 of the Clean Water Act. Both agencies, acting in an independent capacity, have granted this abeyance in the recognition that successful implementation of the KHSA will resolve the relicensing proceeding for the Project.

**Q. What implementation actions has the Company taken directly as a result of the KHSA?**

A. Since the execution of the KHSA, the Company has made adjustments to Project operations consistent with its obligations under the KHSA and has taken actions to fulfill its requirement to implement interim measures to protect and enhance environmental resources in the Klamath basin. These interim measures include providing increased funding to support and enhance hatchery operations at the Company’s fish hatchery located at the Project, actions to fund and implement habitat enhancement and conservation actions for salmon and fish species protected under the ESA, and actions to fund and implement water quality monitoring and enhancement measures.

**Q. Have other parties to the Settlement made progress in implementing their obligations?**

A. Yes. Since the Settlement was signed, the U.S. Department of the Interior (Interior) and the California Department of Fish and Game (CDFG) have undertaken the necessary environmental review and analysis consistent with the requirements of NEPA and CEQA, which must be completed prior to the Secretarial Determination. Scoping for the NEPA/CEQA process began in June 2010 and a Draft EIS/Environmental Impact Report for Klamath facilities removal was released by Interior and CDFG for public comment on September 21, 2011. Interior has completed numerous studies and technical reports over the past two years in fulfillment of its commitment in the KHSA to conduct relevant environmental studies and analysis to ascertain the impacts of potential dam removal.

**Q. Is there progress with federal legislation that would advance the KHSA?**

A. Yes. Legislation that would endorse and authorize the KHSA and the KBRA was introduced in the U.S. Congress on November 10, 2011. Senator Merkley from Oregon introduced the measure (S. 1851) in the Senate along with Senator Barbara Boxer from California. In the Senate, the bill has been referred to the Committee on Energy and Natural Resources. Representative Mike Thompson of California introduced the measure (H.R. 3398) in the House of Representatives, along with 15 Representatives as co-sponsors.

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

A. Yes.