EXECUTIVE SUMMARY

TABLE OF CONTENTS

2.0 EXECUTIVE SUMMARY

2.1 INTRODUCTION

The Federal Energy Regulatory Commission (FERC), under the authority of the Federal Power Act, may issue licenses for up to 50 years for the construction, operation and maintenance of non-federal hydroelectric developments. Public Utility District No.1 of Chelan County (Chelan PUD) is hereby applying for a new 50-year license for the Lake Chelan Hydroelectric Project, FERC No. 637 (Lake Chelan Project or Project). The Lake Chelan Project is a major power project with an installed capacity of 48 megawatts (MW) and is currently operating under a license issued by the FERC on May 12, 1981. That license expires on March 31, 2004. Chelan PUD intends to continue to operate and maintain the Lake Chelan Project, which is located approximately 32 miles north of Wenatchee, in Chelan County, Washington. All the power generated by the Lake Chelan Project is currently available to serve the homes and businesses of Chelan County.

Chelan PUD has requested and received approval from the FERC to employ an alternative relicensing process for the Lake Chelan Project, as allowed under Title 18 of the Code of Federal Regulations, Section 4.34, paragraph (i) [18CFR4.34(i)]. The alternative relicensing process used by Chelan PUD has expedited the licensing process by combining the prefiling consultation and environmental review processes into a single process and by improving and facilitating communication among the participants in the licensing process. Chelan PUD conducted over 115 working group meetings and 39 full team meetings from 1998 through March 2002.

As part of the consultation process (18CFR16.7), Chelan PUD prepared an Initial Consultation Document (ICD) dated Oct. 5, 1998. The ICD contains a detailed description of Lake Chelan Project features and operating measures and serves to document the surrounding environment and resources affected by Project operations. The primary purpose of the ICD was to help those interested in the relicensing process of the Lake Chelan Project gain a better understanding of the Project, its operation and related environmental resources.

This license application is intended to describe the existing Project and its operation. For the most part, information contained in the license application is the same as the ICD, with the exception of Exhibit E. The alternative relicensing process allows for the preparation of a preliminary draft environmental assessment (PDEA) in lieu of Exhibit E. The PDEA is being issued as a separate document and is intended to describe the existing environment, the consultation process, ongoing project-related impacts and proposed measures to address those impacts.

2.2 CHELAN PUD

Power generated within Chelan County comes from Chelan PUD, which is a nonprofit, community-owned and community-operated utility district and is a municipal corporation under Washington law. This means that all the citizens of the community have a stake in the electric

utility. It also means that citizens have an opportunity to participate in making decisions about their energy future, taking into account local needs and values.

Established in 1936, Chelan PUD has been a strong advocate of local ownership and operation of the county's resources. As a result, Chelan PUD has acquired, through purchase and development, the second largest non-federal hydroelectric generating system in the country. Chelan PUD's three hydroelectric generating projects, Lake Chelan, Rocky Reach (FERC Project No. 2145) and Rock Island (FERC Project No. 943), generate a combined total of about 11 billion kilowatt hours of power every year. The hydroelectric projects provide clean, renewable and affordable power that benefits the economy of Chelan County and the Pacific Northwest. Chelan PUD uses 37 percent of its total generating capacity to meet the electrical needs of its Chelan County customers, including a portion of Alcoa's Wenatchee aluminum smelter. The remainder, or about 63 percent of the total generating capacity, is transmitted throughout the Pacific Northwest over a 16,000-mile grid of high voltage transmission lines to four principal power purchasers: Puget Sound Energy, Avista Corporation (formerly Washington Water Power Company); PacifiCorp, and Portland General Electric Company.

2.3 THE LAKE CHELAN HYDROELECTRIC PROJECT

The 48-megawatt Lake Chelan Hydroelectric Project is the smallest of Chelan PUD's three FERC-licensed hydroelectric projects. The Lake Chelan Project was purchased from the Washington Water Power Company (WWP) in 1955. Under terms of a 40-year contract, the power produced by the Lake Chelan Project was shared with WWP. That contract expired in June 1995, and power produced at the Project is now being used to meet local energy needs through Chelan PUD's electric distribution system.

The Lake Chelan Project includes a 40-foot-high dam, 2.2-mile-long tunnel and penstock, surge tank, powerhouse and switchyard. The dam is located at the southeasterly end of Lake Chelan. The Project is operated to meet a variety of needs, including power generation, recreation, environmental resources, domestic and irrigation water and flood control.

Water is delivered from the dam to the powerhouse through a tunnel and penstock. The vertical drop between the dam and powerhouse is nearly 360 feet. The only visible portion of the penstock is a 125-foot-high surge tank that's designed to absorb the hydraulic momentum of the falling water in the event that flow through the powerhouse needs to be stopped. When necessary, or during periods of high runoff, the dam spillgates may be utilized to regulate the lake level as it approaches maximum elevation. Water through the spillgates flows down the 3.9-mile Chelan River bypassed reach (bypassed reach), past the powerhouse and into the Columbia River.

The powerhouse is located along the Columbia River, near the community of Chelan Falls. The powerhouse contains two Francis-type turbines that drive generators rated at 24,000 kilowatts each. Water is discharged into the tailrace on the east side of the powerhouse, where it flows into the Columbia River. Electric energy is transmitted from the powerhouse to an adjacent switchyard, where two main power transformers step up the power from 11,000 volts to 115,000

volts. Five 115,000-volt transmission lines connect the switchyard to the electrical distribution/transmission system of Chelan PUD.

2.4 RESERVOIR OPERATIONS

Lake Chelan is a natural body of water that developed within a broad glacial trough. The lake is approximately 1,486 feet deep. The Lake Chelan drainage basin encompasses approximately 924 square miles, of which almost 50 percent is above 5,500 feet in elevation. The Project utilizes the top 21 feet of Lake Chelan to produce power year-round, while taking into account the irrigation, municipal and domestic water supply, recreation, fish and wildlife and other beneficial uses of the resources.

The major portion of precipitation in the Chelan basin occurs in the form of snow during the months of November through March. Peak flows into Lake Chelan mostly occur from April 15 to July 15, as the winter snowpack begins to melt. Historically, the annual peak runoff occurs in early June with the melting of snowpack from the higher elevations.

Chelan PUD operates the reservoir between a maximum water elevation of 1,100 feet[1] (USGS) and minimum elevation of 1,079 feet. The full pool elevation is at 1,098 feet, which assures the fullest possible utilization of the reservoir for generation of electricity while meeting recreation and flood control needs, irrigation requirements and environmental uses of Lake Chelan. The usable reservoir storage capacity within this range of reservoir elevations is 677,400 acre-feet. Chelan PUD regulates the lake level to assure within a 95-percent probability that the reservoir will refill to an elevation of 1,098 feet on or before June 30 each year. This is in consideration of the varied recreational uses of the lake during the summer months.

Annual regulation of Lake Chelan is heavily dependent on yearly weather conditions. Chelan PUD uses annual snowpack surveys of the Chelan drainage basin system, along with information collected from four snowpack monitoring telemetry sites, to determine runoff forecasts. Chelan PUD has been conducting these surveys since 1955. The forecasts are an important factor in assuring that the expected volume of runoff is equal to the volume available in storage. The forecasts are made available to the public and local news media. Over the years, these forecasts have proven to be within 5 percent of the observed actual inflow.

Typically, Lake Chelan begins to refill during April and May, as warmer temperatures melt the lower snowpack areas and stream flows into the lake increase. Lake Chelan remains between 1,098 and 1,100 feet from June 30 through September 30. During October, the elevation begins to drop as stream flows into the lake decline. From October through April, water released through the power tunnel for power generation, exceeds the amount of water entering the lake from inflows. The lowest, annual lake elevation generally occurs during March or April. The average drawdown of the lake over the past 43 years of operation has been to about 1,084.2 feet.

[1] All elevations are based on the USGS datum used when the Project was constructed in 1926-27. To convert to the newer U.S. Coast and Geodetic Survey (USC&GS) datum commonly used on the Columbia River, subtract 1.78 feet.

The lake again refills during April and May as the spring runoff exceeds the amount of water needed for power generation.

Operation of the reservoir also serves to protect shoreline property from flooding. During peak runoff periods, water released down the bypassed reach is planned by Chelan PUD so that flows rarely exceed 12,000 to 15,000 cubic feet per second (cfs). Amounts of water higher than these flows could result in erosion of the bypassed reach. This erosion results in river channel and riverbank gravel being washed downstream by heavy flows and deposited in the area between the mouth of the bypassed reach and the confluence with the Columbia River. Chelan PUD operates the Lake Chelan Project to limit the high flows through the Chelan River bypassed reach, thus limiting erosion damage.

2.5 LAKE CHELAN

Lake Chelan averages one mile in width and is 50.4 miles long. It has a maximum depth of nearly 1,486 feet when the lake is at elevation 1,100 feet. Lake Chelan is the third deepest lake in the nation, extending nearly 400 feet below sea level. Consistently ranked as one of the most pristine waters in the United States, Lake Chelan is surrounded by a diverse topography consisting of glacial river valleys, hills and snowcapped peaks. Up lake, the terrain is mountainous and rugged, with mountain peaks reaching an elevation of 9,000 feet. In many cases, the steep slopes run directly into the lake with no flat beaches or shoreline. The terrain at the lower end of the lake is much less severe. Except where irrigation has taken place, the hills at the lower end of the lake are filled with grasses and scattered pines. Precipitation in the basin varies from 150 inches per year in the mountainous upper basin to approximately 11 inches per year near the City of Chelan.

The clean, crystal clear water of Lake Chelan offers some of the best outdoor recreational opportunities in the country. In addition, surrounding national forests and national parks offer many year-round outdoor activities.

2.6 PROJECT HISTORY

The original 50-year license for the Lake Chelan Project was granted by the Federal Power Commission in 1926, when the Project was owned and operated by the Washington Water Power Company (WWP). Chelan PUD purchased the Lake Chelan Project from WWP in 1955. Under the terms of a 40-year contract, the power produced by the Project was contractually shared with WWP. That contract expired in June 1995, and the power is now being used to meet the local energy needs through Chelan PUD's electric distribution system.

Chelan PUD was granted a 30-year license by the FERC in May 1981 and made retroactive to 1974. That license will expire on March 31, 2004.

2.7 CHELAN PUD'S RELICENSING PROCESS

The consultation process being used by Chelan PUD has followed the requirements specified in 18CFR4.38 and 18CFR16.8. The contents of the license application follow the requirements specified in 18CFR4.51.

Chelan PUD began the consultation process with interested parties in 1998. In general, interested parties (or stakeholders) include federal, state and local resource agencies, tribes, non-governmental organizations, local businesses, the general public and the FERC. Chelan PUD received approval from the FERC in July 1998 to use the alternative relicensing process for the Lake Chelan Project. Consultation guidelines and procedures as well as a communications protocol were developed to assure that effective and coordinated two-way information sharing mechanisms were in place for all interested parties during the relicensing process. The alternative relicensing process provided an opportunity for all interested parties to become involved early in the process and allowed for ongoing discussion and resolution of required studies and the identification of ongoing Project-related impacts. The process allowed issues to be discussed and protection, mitigation and enhancement (PME) proposals to be shared among interested parties and Chelan PUD throughout the relicensing process. A detailed description of the consultation process and proposed PME measures is provided in the PDEA dated March 31, 2002.

2.8 THE LAKE CHELAN HYDROELECTRIC PROJECT LICENSE APPLICATION—ITS CONTENT AND PURPOSE

The license application contains a detailed description of Lake Chelan Project and how it is operated. It is divided into eight major sections, referred to as Exhibits.

Exhibit A describes the Project's features.
Exhibit B describes the Project's operations.
Exhibit C contains the Project's construction history.
Exhibit D contains the Project's economic information.
Exhibit E not required (See PDEA).
Exhibits F and G contain project drawings, location map and boundary information.
Exhibit H contains supplemental information about Chelan PUD and the Project.

The purpose of the license application is to provide a description of the Project and its operation.