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July 31, 2008

MEMORANDUM

TO: Council Members

FROM: Terry Morlan

SUBJECT: Presentation by Chelan PUD on Membership in Chicago Climate Exchange

Tracy Yount with Chelan PUD will talk with the Council about the utility's membership in the Chicago Climate Exchange (CCX). The CCX is an exchange, similar to the New York Stock Exchange or the NYMEX, but it trades in emissions allowances instead of stocks or energy futures. If you want more information on the CCX go to www.chicagoclimatex.com.

Chelan PUD expects to be able to sell emissions allowance credits that it creates through improved generating efficiency at its dams and improved fish spill efficiency to other members of the CCX that need credits. In other words, incremental hydropower production is an increased amount of carbon free generation that has value for others who need carbon credits in order to operate their businesses. Chelan PUD will use any revenues from credit sales for its environmental, conservation, or system efficiency improvement programs.

This provides an interesting example of a new kind of potential relationship between the Power Plan and the Fish and Wildlife Program. For example, some habitat projects may also sequester carbon. Such a project could provide offsets for carbon emissions from power generation, and the payment for such offsets could provide a source of funding for habitat projects.

A one page description of Chelan PUD's participation in the CCX is attached.

*Chicago Climate Exchange Proposal
Dec. 17, 2007*

Chelan County PUD's investments in energy efficiency improvements and environmental programs have incrementally increased hydropower energy production. The environmental programs provide some of the highest levels of protection for salmon on the Columbia River through a multi-agency Habitat Conservation Plan. Chelan County PUD's balanced approach to protecting fish and increasing hydropower production is a positive contribution to the complex issue of greenhouse gas reductions.

Chelan County PUD is always considering options and opportunities that bring value to our customer-owners and support the mission of the PUD. One forum the PUD has recently investigated is the Chicago Climate Exchange (CCX), which is an emissions allowance trading system. Its members represent all sectors of the economy, including electric generation. The members make a voluntary but legally binding commitment to meet annual greenhouse gas emission reduction targets. Member companies can meet these targets by reducing their own emissions or by getting other members to reduce their emissions (called offset providers).

Through the offset program, members can invest in emission reduction projects (e.g. gas sequestration) or clean renewable energy projects (e.g. hydro, wind, solar). In other words, they can support programs developed and implemented by others that "offset" their own greenhouse gas emissions. CCX enables these offsets to be tradable, so that companies that emit greenhouse gases are able to find and purchase offsets to greenhouse gases. The CCX brings buyers and sellers together; it also helps ensure that emissions offsets offered for sale are verifiable.

Chelan PUD submitted a proposal to CCX to be considered as a participating member or "offset provider" and was approved in August, pending a verification report. This means that Chelan PUD can provide offsets based on its clean renewable hydropower for purchase by companies interested in reducing their carbon footprint.

Hydropower can be considered a verifiable offset because the PUD is generating incremental power, over a predetermined baseline starting in 1999, while still meeting all regulatory obligations. The incremental power comes from two sources 1) equipment efficiency improvements such as those achieved from project modernization; and 2) operational efficiency improvements such as reduced spill due to use of the fish bypass system at Rocky Reach Dam. These kinds of operational efficiency improvements are outlined in Chelan PUD's Habitat Conservation Plans, provided that Chelan PUD maintains survival standards for anadromous salmon and steelhead.

Chelan PUD's proposal was approved by the CCX on August 21, 2007. Now, Chelan PUD has joined CCX as a participating member. Any funds generated will be used to support and enhance Chelan PUD's environmental, conservation and system efficiency improvement programs, all of which work to reduce the regions reliance on greenhouse-gas-emitting power sources.

NWPCC

Chicago Climate Exchange

Presented by: Suzanne Grassell

Tracy Yount

Chelan County PUD

Principle 1

- **Hydropower is renewable and should be included as an eligible renewable resource under a national renewable portfolio standard**

Principle 2

- Demonstrable increases in incremental hydropower including equipment and operational efficiency improvements, should be encouraged as “offsetting” greenhouse gases

Principle 3

- Emissions legislation should **credit utilities for their past accomplishments in renewables, energy efficiency, and customer conservation** and support the development of new technologies



Chicago Climate Exchange

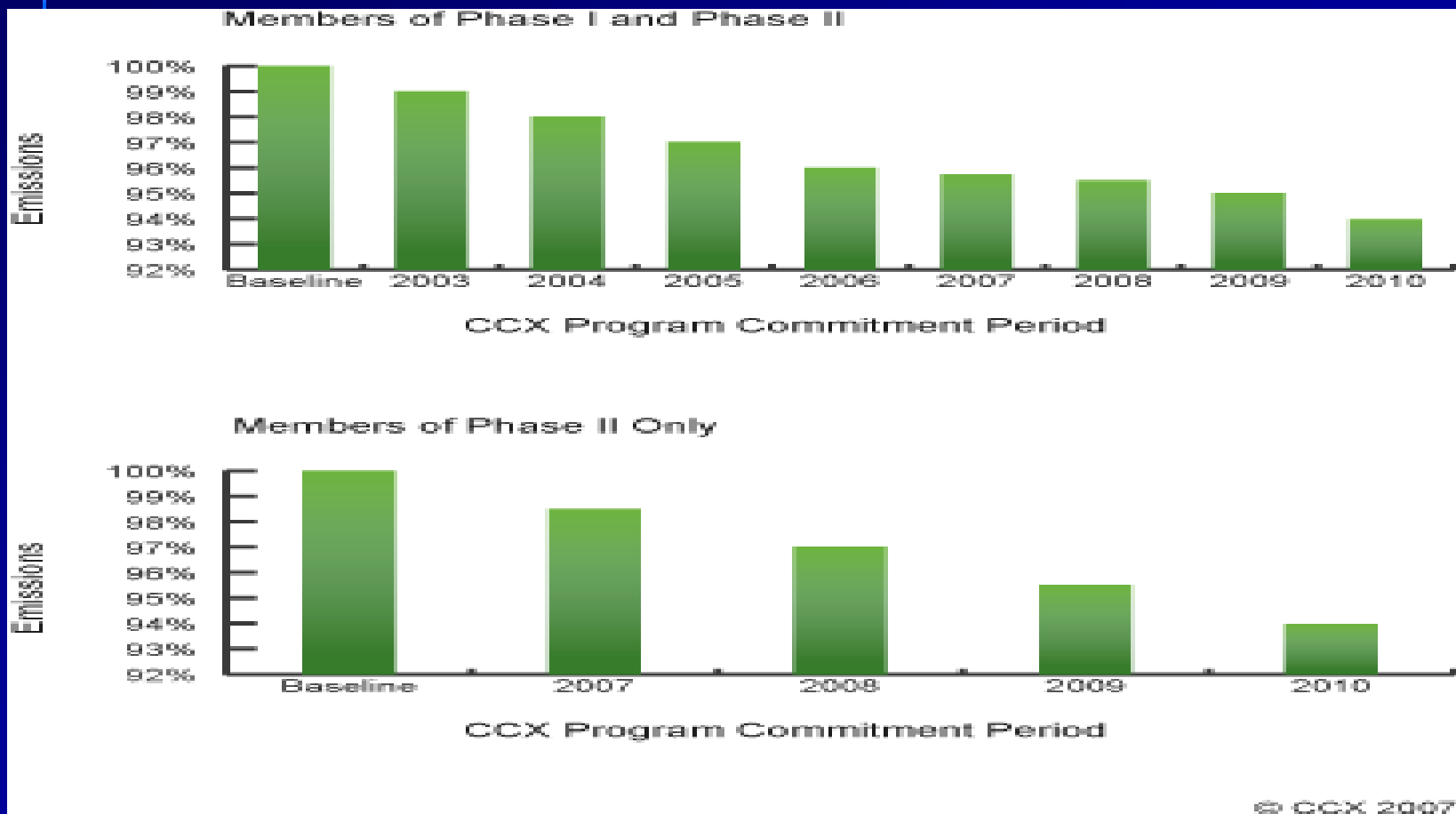
North America's only and the world's first global marketplace for integrating voluntary legally binding emissions reductions with emissions trading and offsets for all six greenhouse gases

Chicago Climate Exchange

- Defines, verifies and tracks the emissions footprint of **member organizations** (tons of CO₂)
- Helps reduce or minimize a **member organization's** emissions footprint by countermeasures or offsets
- Defines, verifies and tracks offsets provided by others (**participating members**)

CCX Emission Reduction Schedule

Baseline: average of annual emissions from 1998-2001 or the single year 2000



Chicago Climate Exchange Renewable Energy Offset Projects

- Offsets from renewable energy displace GHGs emissions from fossil plants
- CCX approves offset providers/projects
- Eligible renewable energy projects include:
 - Wind
 - Solar
 - **Hydro**
 - Biofuel

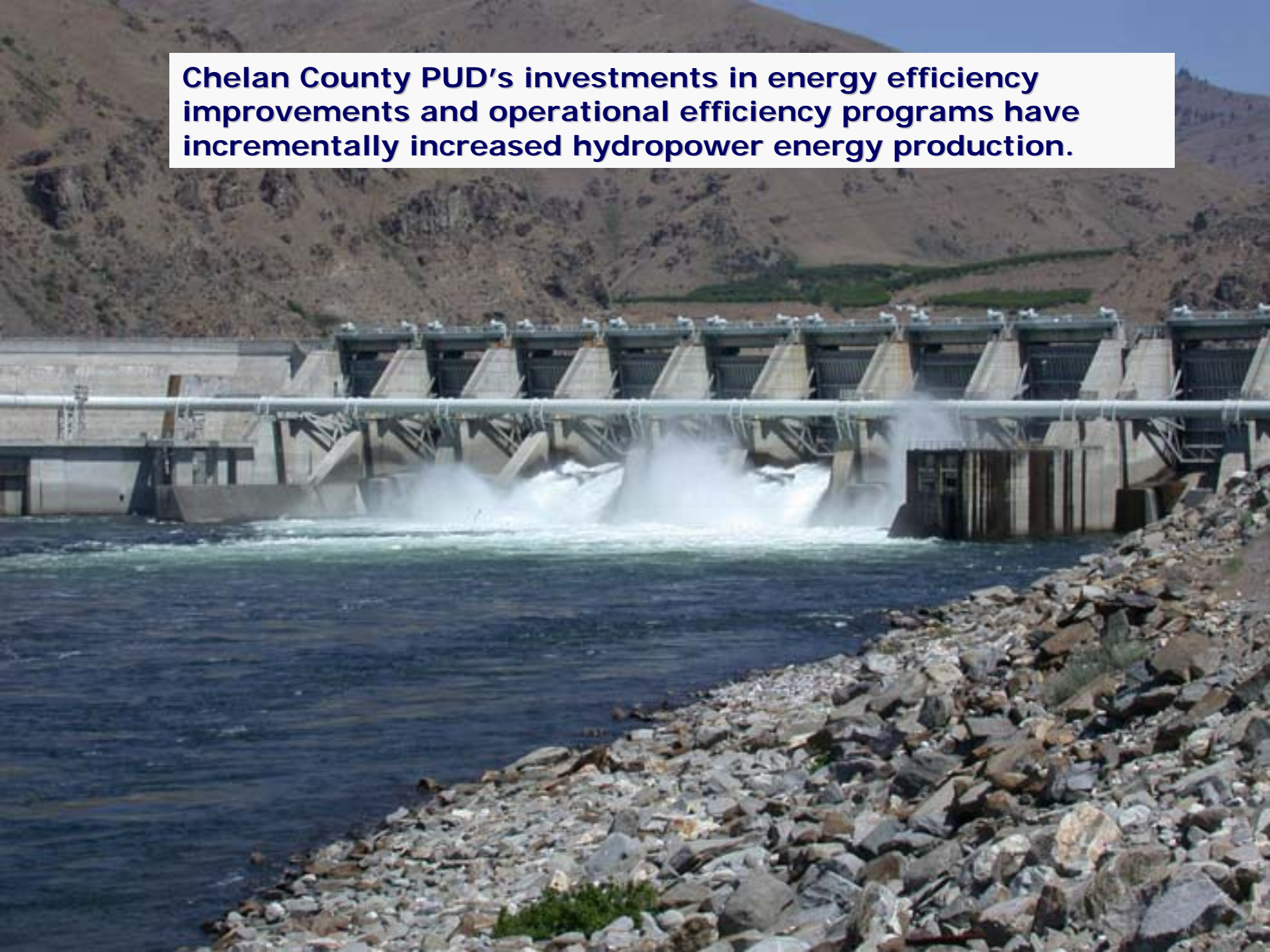
Renewable Energy Offset Project Requirements

- Projects developed on or after January 1, 1999
- Offsets for years 2003-2010
- Ownership rights to the environmental attributes
- Environmental attributes must be surrendered to CCX to prevent double counting
- Must be independently verified by a CCX-approved verifier
- Carbon Financial Instrument™ (CFI™) contracts are issued on the basis of displaced electricity at a rate of 0.40 metric tons of CO₂ per megawatt hour

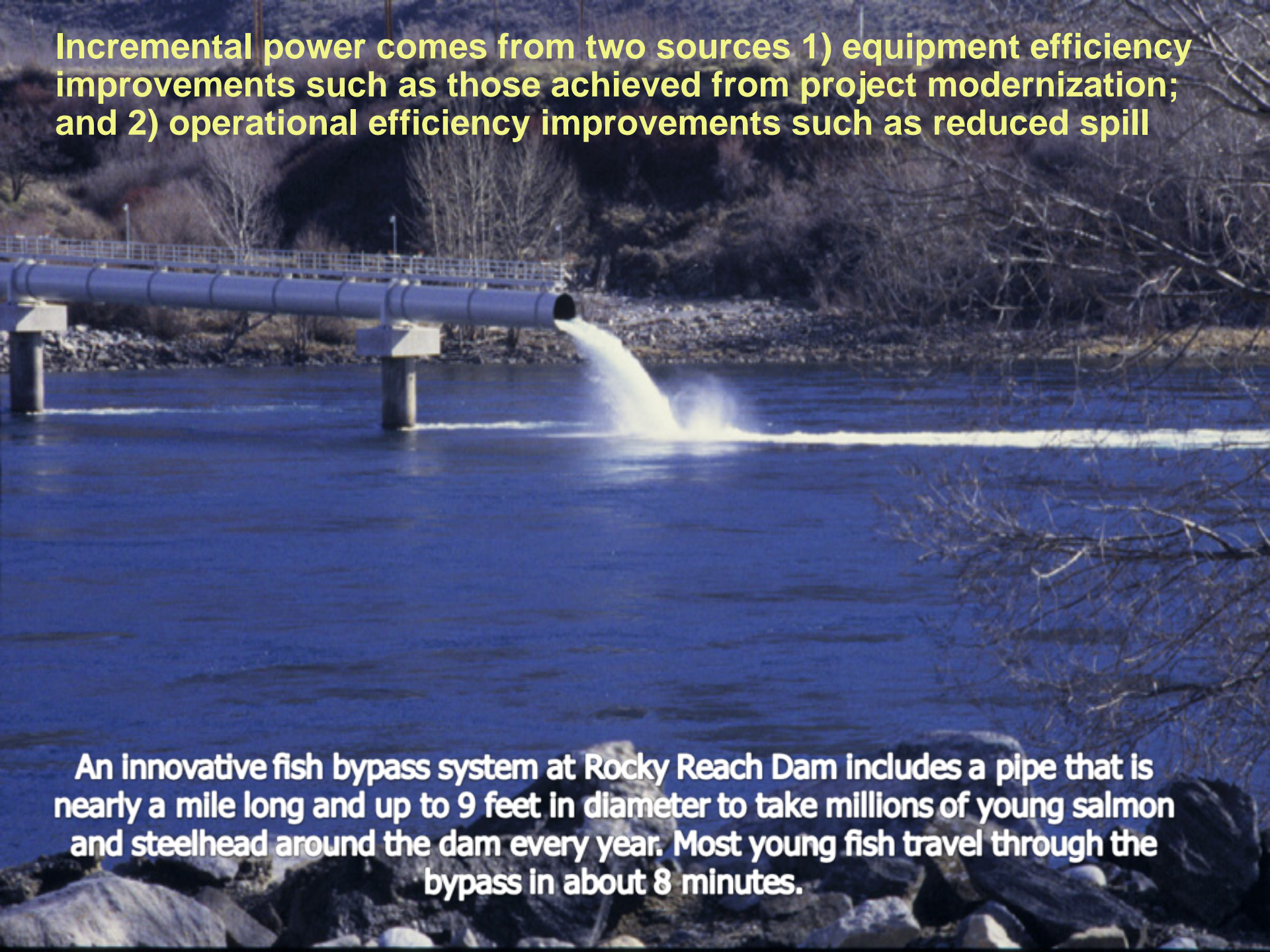
Proposal Process

- Submitted a proposal to the CCX Committee on Offsets (June, 2007)
- CCX Committee approved the District as an offset provider (August, 2007)
- Verification of offsets by approved CCX verifier (Oct. – Nov., 2007)
- CCX Board approves portion of RR hydro as tradable CFIs (offsets)
- First trades on CCX (January, 2008)

Chelan County PUD's investments in energy efficiency improvements and operational efficiency programs have incrementally increased hydropower energy production.



Incremental power comes from two sources 1) equipment efficiency improvements such as those achieved from project modernization; and 2) operational efficiency improvements such as reduced spill

A large, grey concrete pipe is supported by two concrete pillars over a river. Water is gushing out of the pipe's end, creating a white splash and a white wake in the blue water. The background shows a rocky riverbank with some bare trees and a hillside.

An innovative fish bypass system at Rocky Reach Dam includes a pipe that is nearly a mile long and up to 9 feet in diameter to take millions of young salmon and steelhead around the dam every year. Most young fish travel through the bypass in about 8 minutes.

Questions?