



CHELAN COUNTY

# DEVELOPING A ROADMAP

for loads greater than 5 MWs

February 20, 2018

# TODAY'S DISCUSSION

Summary  
of requests

Issues  
and risks  
to manage

Options for  
managing  
issues and risks

Next steps

**NO  
BOARD  
DECISION  
REQUESTED  
TODAY**

# CURRENT CONDITIONS

Seven requests received

Loads range from 5 MW – 100 MW

Double total local average annual load

Requesters desire quick connections

# MISMATCH OF BUSINESS MODELS

- Requesters expect short-term return on investment (even less than 1 year)
- Service requesters equipment may be mobile and transient
- PUD decisions based on long-term return on investment/value creation
- Recent service requests have very different business profile from traditional customers like fruit warehouses or other historic industrial users
- Mismatch affects every aspect of our relationship

# ISSUES TO MANAGE

- Availability of:
  - Generation
  - Transmission
  - Distribution
- Rates, terms, and conditions for each contract
- Compliance and risk considerations
- Impacts on existing customer-owners
- Managing concerns & being responsive to requests

# GENERATION RISKS

- Maintaining availability of large amounts of power supply for transient loads would significantly impact our current contract portfolio
- Additional retail loads would impact revenues
- Traditional retail sales do not provide the protection that wholesale sales provide from streamflow, outage and credit risks
- New retail loads will increase our regulatory compliance and customer-focused programs (e.g. I-937, low-income, Public Power Benefit)
- Multiple contracts will be required to address customer preferences (workload issue)

# GENERATION (POWER SUPPLY) OPTIONS

## 1. Cost-of-service (HDL-type)

- Based on production/direct costs
- Considers cost associated with increased streamflow and outage risk
- Contract term and credit protection required\*
- Variable at PUD discretion through public process
- Limit optionality to switch rates during contract term\*

*\*Applies to all options*

## 2. Cost-of-service (Cost-plus slice contracts)

- Based on production, direct and indirect costs
- Percentage output of hydro projects
- Fixed terms and conditions in contract
- Customer may need access to market to meet all needs
- Customer has flexibility to purchase environmental attributes
- Consideration for other impacts on customer-focused programs

# GENERATION (POWER SUPPLY) OPTIONS

## 3. Market Rate (Slice-type)

- Based on market value
- Percentage output of hydro projects
- Customer may need PUD facilitated services and/or access to market to meet all needs
- Consideration for other impacts on customer-focused programs

## 4. Market Purchase (External Power Marketer)

- Terms established between power marketer and customer
- Facilitated through PUD with power supply risk borne by marketer and retail purchaser
- Likely require some power supply services from PUD to successfully serve retail load
- Consideration for other impacts on customer-focused programs
- This option needs further review to understand potential significant regulatory implications



# TRANSMISSION AND DISTRIBUTION RISKS

- Short-term contract versus potential need for long-term infrastructure investments
- Requires building beyond requested size of load
- Need recovery mechanism for transmission study cost
- Short turnaround time expectations while studies and associated improvements are time-consuming
- Impact on existing workload

# TRANSMISSION AND DISTRIBUTION OPTIONS

- Transmission study costs paid in advance
  - Normally a 3-step process
  - Assembling expert opinion for step 1 considering 4 regions: Wenatchee, Entiat, Malaga, Monitor (Andrew York area)
  - Developing cluster study (collaborative) approach to encourage least cost approach to development
- Timelines developed through study process and collaboration with requesters, but unlikely to be less than 2 years, particularly if system improvements are necessary
- Exploring options for customer-ownership of distribution facilities including construction, operation and public outreach

# TRANSMISSION AND DISTRIBUTION OPTIONS

- Pay transmission/distribution\* rates plus full marginal costs
  - Would likely require systems benefits credit mechanism (akin to latecomer fees)
  - Must calculate locational marginal cost of transmission/distribution
  - Credit requirements or payment up-front

- Pay transmission/distribution\* rates plus proportional marginal cost
  - Must calculate locational marginal cost of transmission/distribution
  - Credit requirements or payment up-front

*\*Customers served at transmission voltage may avoid distribution costs*

# NEXT STEPS

- Develop a sustainable approach which includes:
  - Expanding request process for loads greater than 5 MW to collect more information
  - Defining risk tolerances
  - Defining contract options, including rates
- Meet with current requesters to review options presented today
- Timeline for existing requests is undefined until processes developed and scope of studies are determined