DEVELOPING A ROADMAP
for loads greater than 5 MWs

February 20, 2018
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**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)
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*

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

*Applies to all 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