

# **Rocky Reach Bid 19-86 Intake Headgates**

# Background



## Headgates

- Twelve (12) Headgates available at Rocky Reach
- 3 Headgates make 1 set – total of 4 sets
- One set is strictly for Emergency runaway unit
- Each 24 ft wide x 50 ft tall
- Each weighs 110 tons

# Current C1 – C7 Program

- C2 Trunnion Bushing/Seal Refurbishment - 2020
- C7 Trunnion Bushing/Seal Refurbishment - 2020
- C3 Trunnion Bushing/Seal Refurbishment  
2020/2021
- C4 Trunnion Bushing/Seal Refurbishment-  
2020/2021
- C5 Trunnion Bushing/Seal concerns - 2021/2022
- C6 Trunnion Bushing/Seal concerns - 2021/2022

# Operational Needs

Headgates are required for maintenance and repair work - examples of delayed activity due to not having another set of head gates:

- Trunnion bushing/servo seal repairs
- C3 hydraulic blade blocking - Inspections
- C10/C11 blade block inspections
- C7 seal failure evaluation
- C9 inspections following long-term repair

# Future Needs

Examples of outages we could anticipate needing additional Headgates:

- Trunnion bushing/seal failures
- Wicket gate bushing repair/replacements
- C10/C11 blade block inspections (depending on when we get done with C1-7 trunnion bushing replacements)
- C4 thrust pot heat exchanger replacement (current issue)
- Hydraulic blade blocking of units
- Inspections on large units
- Work associated with conversion to water-filled hubs
- Lots more starts and stops with TDIP, evaluating how our asset management approach may need to change
- We are continuously discovering additional Headgate requirements

# Economics

- Total Project Cost \$3.7M, contract \$3.153M
- Benefits: Reduce wait time to get a 4<sup>th</sup> generating unit back available for service when existing Headgate sets are fully employed
- Goal: Seek future outage days saved to produce a break even 7% IRR
- Staff support future outage days modeled based on noted operational & future needs lists
- Therefore, economics are supportive of this purchase

# Recommended Action

- Request approval for a budget revision of \$965,000
- Approval to award Bid 19-86
- Contract Award: \$3,152,930
- Total Project Cost estimate: \$3,715,000

Questions?