

**Rock Island Powerhouse 2**  
**Bridge and Gantry Crane Update**

**No Action Required**

**Commission Presentation**  
**October 7, 2019**

# Background

## Original Cranes from 1977

- Control system for bridge crane 250t hoist not functioning, parts not available.
- Controls for auxiliary hoists at end of life; No manufacturer support.
- Both cranes needed to remove generator for rehabilitation

# Bid 18-81 Scope

Bid Option	Whiting	COH
Sch. A - Rehabilitate Bridge Crane	\$5,510,869	\$5,718,019
Schedule B - New Bridge Crane	\$5,772,157	\$5,616,335
Schedule C – New 2 <sup>nd</sup> bridge Crane	\$5,109,020	\$5,033,839
Schedule D – Rehabilitate the Gantry Crane	\$6,248,760	\$6,794,396
Schedule E – New Gantry Cane	\$8,365,141	\$8,365,141
Schedule F – Deduct if purchase 2 new Bridge Cranes	- \$150,000	-\$1,225,000
<b>TOTAL for B, C, D, and F</b>	<b>\$16,979,937</b>	<b>\$16,219,570</b>

# Capital Budget Revision

Bid Option	Original	Proposed
New 250t Bridge Crane	\$4,960,000	\$7,830,000 Delta = \$2,870,000
Rehabilitated 250t Gantry Crane	\$5,760,000	\$9,100,000 Delta = \$3,340,000
New 2 <sup>nd</sup> 250t Bridge Crane	\$ 0	\$5,620,000
Lessons Learned	Budget at Contract Award	Cost at Close-out
Rocky Reach 250t Bridge Crane Refurbishment (2)	\$6,780,000	\$8,440,000
Contract Price for 2 cranes	\$4.4 M	\$5.5 M
Contract Extra work		\$1.1 M or 25%

# Increased Cost Factors

- Gantry Crane – original budget assumed refurbishment
- Bidders submitted higher prices for refurbishment and new than estimated based on costs for RR Gantry Crane
    - New 150t RR Gantry from COH = \$4.6M
    - New 250t RI PH2 Gantry from COH = \$8.7M
  - Propose to include 20% contingency for refurbishment unknowns based on experience at Rocky Reach.
  - Increased District, consulting and inspection labor cost for refurbishment change orders.

# Increased Cost Factors

Bridge Crane – original budget assumed refurbishment

- Bidders submitted higher prices for refurbishment than estimated based on costs for RR Bridge crane refurbishment. Expected \$3.8M, Received \$5.5/\$5.7M.
- Decided to purchase new: expected cost to be +\$1.5M.
- Propose to include 10% contingency because design not completed (to be performed by contractor): \$400k
- Increased District, consulting and inspection labor cost for: submittals for all new components, shop fab of steel structures, install new and demo of existing.



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# Increased Benefits 2<sup>nd</sup> Bridge Crane

Assumes 10 year rehabilitation program

- Increased resiliency
- Maintenance on existing units – early years
- Maintenance/warranty inspection on new units
- Probability of forced outage repair
- Increased efficiency/reduced time for rehab contractor
- Reduced risk of rehab schedule delay
- 10.9% IRR, \$1.8 million NPV. Cost = \$5.6M +1.4M O&M

# Next Steps

- Return for approval of the resolution on 10/21/2019
- Award immediately upon approval of resolution
- Crane work scheduled for completion 12/2021
- Unit rehab work scheduled to begin 9/2021