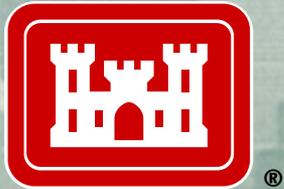


Webbers Falls Powerhouse Major Rehabilitation

22 June 2016



US Army Corps of Engineers
BUILDING STRONG



Webbers Falls Scope, Cost and Schedule

- **Project Scope:** Replace three turbines, rewind three generators and rehabilitate all cranes, tailrace and intake gates and bulkheads.
- **Total Project cost, including turbines, generator, gates, cranes, governors and misc: \$87.6M (\$82.8M customer funded)**
- **Turbine Contract Awarded: February 2008**
- **Original Awarded Turbine Contract Amount: \$39.3M**
- **Current Turbine Contract Amount: \$54.88M**
- **Current Required Completion Date : 28 August 2016**
- **Anticipated Completion Date: 30 November 2016 (six months slip since June 2015)**



Webbers Falls Current Project Status

- **Unit 3 completed the 100 day acceptance test 26 November 2012 and continues to operate without issue.**
- **Unit 1 completed the 100 day acceptance test on 11 May 2016. The unit generated power in excess of 25MWs exceeding the anticipated uprate requirement.**
- **Unit 2 generator has been tested and set on the pedestal ready for generation once the turbine runner reassembly is complete.**
- **Unit 2 gate barrel is installed, servomotors are being installed, and the runner is delivered and will be installed by 24 June.**



Webbers Falls Current Project Status- cont.

- **Unit 2 is scheduled to start the 100 day test run in mid November.**
- **A global settlement modification resolving all impacts between the Government and Andritz was executed. This agreement has resulted in greater cooperation and effectiveness by Andritz.**



Webbers Falls Project Cost Breakdown

2016 Current Cost - \$87.6M

Turbine Rehab Cont. -	55.3
Generator Rewind Cont -	6.0
Intake/Draft Tube Cranes –	4.0*
Rehab Two Bridge Cranes –	2.6
Misc. Electrical Mech. -	4.0**
New 13.8KV Breakers -	0.8*
Unit 1 & 2 Upper Shafts -	1.6
Speed Increaser Unit 1 -	5.5
Unit 1 Supplemental funds	3.3
Unit 3 Supplemental funds	1.6
Unit 2 Supplemental funds	2.9
Total -	\$87.6M

***ARRA Funded **Partial ARRA Funded**



•Cost include S&A and Contingency

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Webbers Falls Modifications

Modifications executed and pending since June 2015:

- **Global settlement and time extension - \$2.8M**
- **Unit 2 servo and embed flange machining- \$225K**
- **6th year escalation- \$1.1M**
- **7th year escalation- \$413K**
- **8th year escalation- \$790K**



Webbers Falls Turbine Rehab Sub Agreement Funding

	Unit 3	Unit 2	Unit 1
Sub Agreement totals including upper shafts and speed increaser	\$19,500,000	\$18,700,000	\$24,200,000
Additional Supplemental Funds	1,600,000	2,900,000	\$3,300,000
Total available funds	\$21,100,000	\$21,600,000	\$27,500,000
Contracts, executed modifications, and S&A	\$20,720,000	\$18,548,000	\$24,042,000
Estimated remaining escalation	\$109,000	\$900,000	\$820,000
Estimated outstanding modifications	\$0	\$0	\$0
Estimated required S&A	\$0	\$543,000	\$200,000
Total requirement	\$20,829,000	\$19,991,000	\$25,062,000
Contingency	\$271,000	\$1,609,000	\$2,438,000



Additional Project Sub Agreements

S138 – Rewind Generators

Units 1,2 & 3 = \$6.0M

Original contract - \$4.9M (\$1.666M/unit)

Unit 1 generator final cost including HDC and Tulsa management – \$2.308M

Unit 2 generator cost 95% including HDC and Tulsa management – \$2.10M

Unit 3 generator estimated cost including HDC and Tulsa management – \$2.10M

Total estimated completion costs \$6.5M

Additional funds of \$600K have been requested.



Additional Project Sub Agreements - Cont

**S137- Intake Gates, Bulkhead and Misc. Electrical - \$4.0M
Ongoing - \$3.5M contract , additional \$518K funded through ARRA.**

The last emergency gate was determined to be un-repairable. The contract will be closed out. A new work package has been submitted for approval.

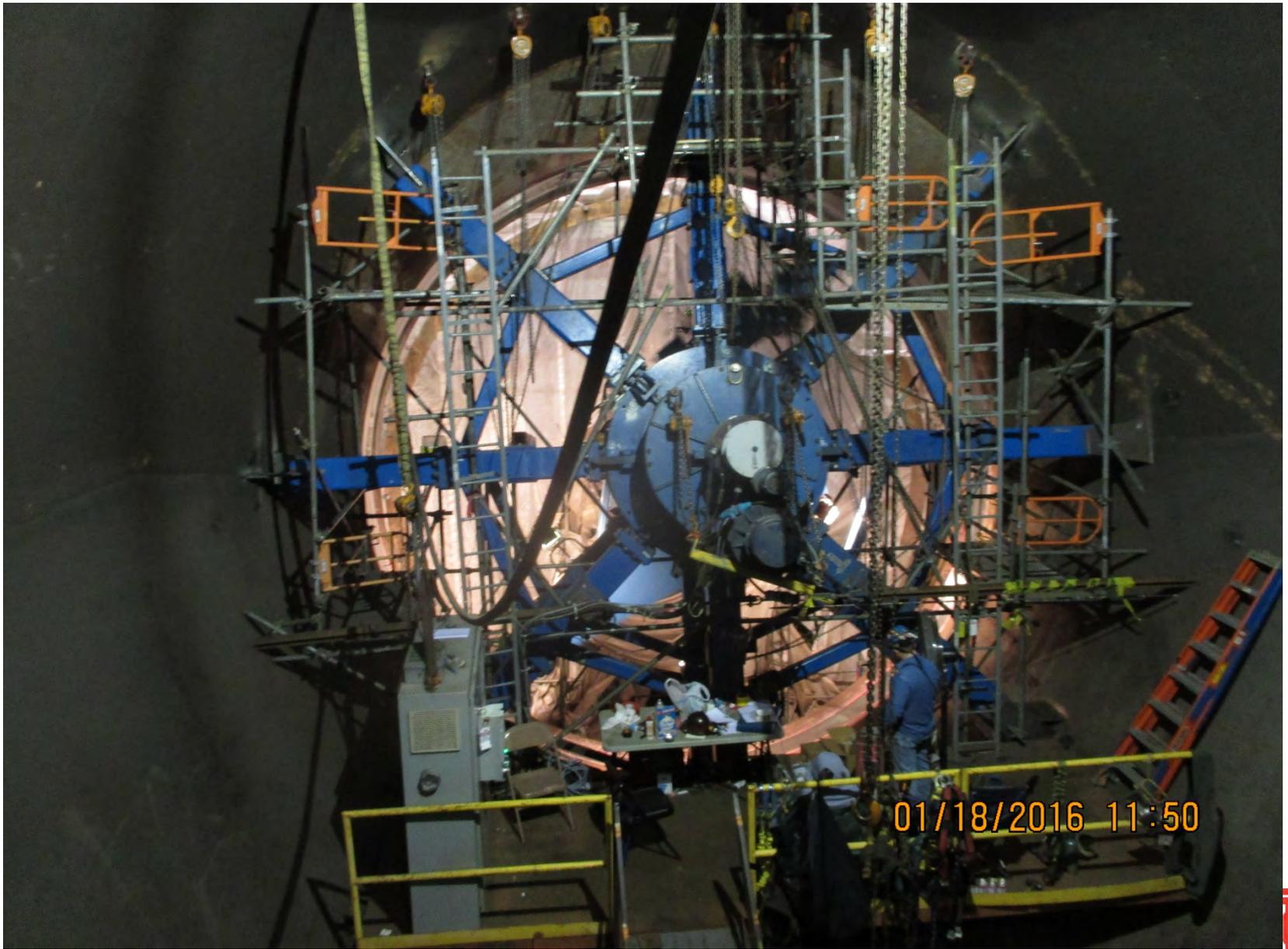


Webbers Falls Progress Pictures



**Unit 1 boring machine
and spider**





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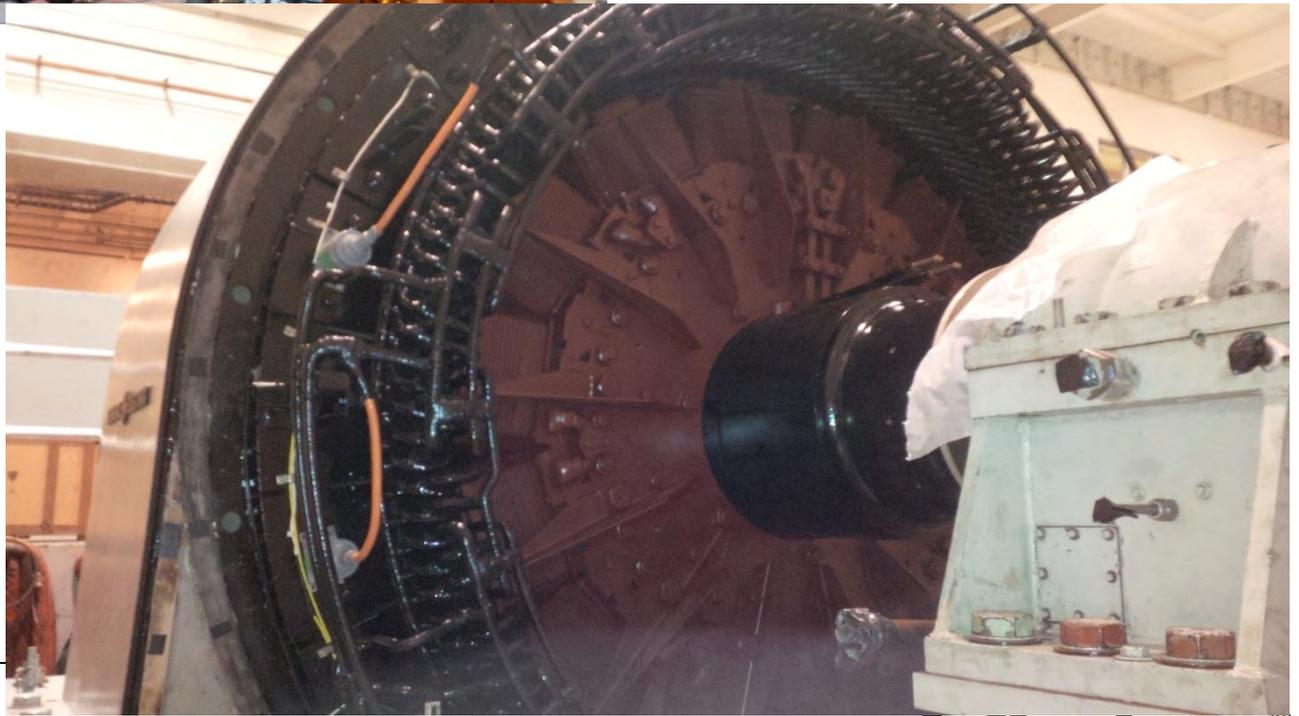
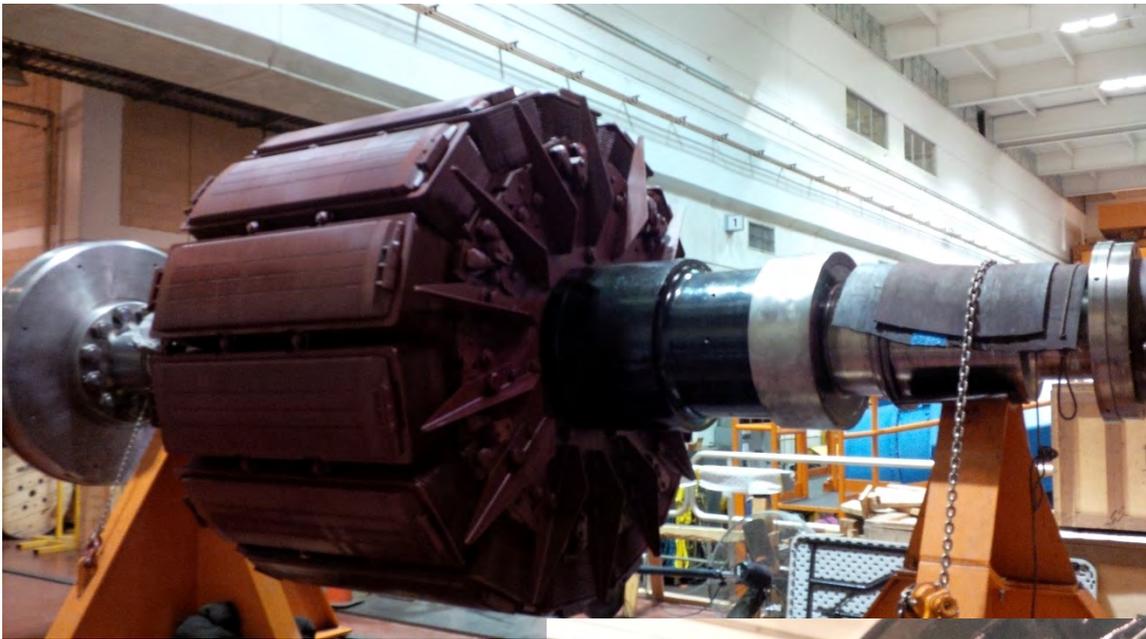


**Unit 1 Wicket gates and
gate barrel**





Unit 2 Generator





Unit 2 runner delivery



Successes

- **Unit 3 continues to run without issues.**
- **Unit 1 generator reassembled and operating.**
- **Unit 1 completed the 100 day run test.**
- **Unit 1 achieved the uprate generation exceeding 25 MWs.**
- **Unit 2 generator tested, reassembled, and ready to run.**



Questions?



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