

# WHITNEY POWERHOUSE MAJOR REHABILITATION



Fort Worth District

23 June 2016



US Army Corps of Engineers  
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# Whitney Powerhouse



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# Whitney Power Plant Main Generating Units Rehab Project



# General Plant Information

## Whitney Powerhouse

- 30 MW capacity, Peaking Plant
- Purpose – Flood Control, Hydropower, Recreation
- Two vertical axis Francis units
- Average annual energy produced - 73,000 MWH
- Plant placed in service in 1953
- Remote operated from Sam Rayburn Plant
- Located on the Brazos River near Whitney, TX



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# Rehabilitation Project

- Unit Rated to 23.3 MW increased from 15MW
- New Digital Governors
- New Francis Turbines
- New Rotor Poles
- New Stator – Built on existing frame
- New Exciters
- New Wicket Gates
- New Cooling Water System-Piping, Strainers, Valves, Air and Oil Coolers



# Turbine/Generator Contract Time Line

- Base Period of Contract Awarded July 2007
- Option Period #1 Awarded April 2008
- Option Period #2 Awarded September 2009
- Option Period #3 Awarded July 2010
- Option Period #4 Awarded July 2011
- Original Contract Completion was Scheduled for July 2012



# Whitney Rehab Sub-Agreement Funding

	Option #2	Option #3	Option #4	Supplemental Funding
Contract & Modifications	\$5,230,000	\$5,150,000	\$4,255,000	\$1,170,000
Contingencies	\$576,000	\$595,000	\$505,000	\$380,000
S&A/EDC	\$530,000	\$800,000	\$800,000	\$950,000
Sub Total	\$6,336,000	\$6,545,000	\$5,560,000	\$2,500,000



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# Turbine/Generator Contract Status

- Both Units successfully commissioned
- Currently generating 24/7 with release of flood waters
- Additional work remaining:
  - ▶ 8,000 hour inspection
  - ▶ Replacement of cooling water piping on Unit #1
  - ▶ Special Field Tests
  - ▶ Repair of cooling water leaks on Unit #2



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# Questions



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