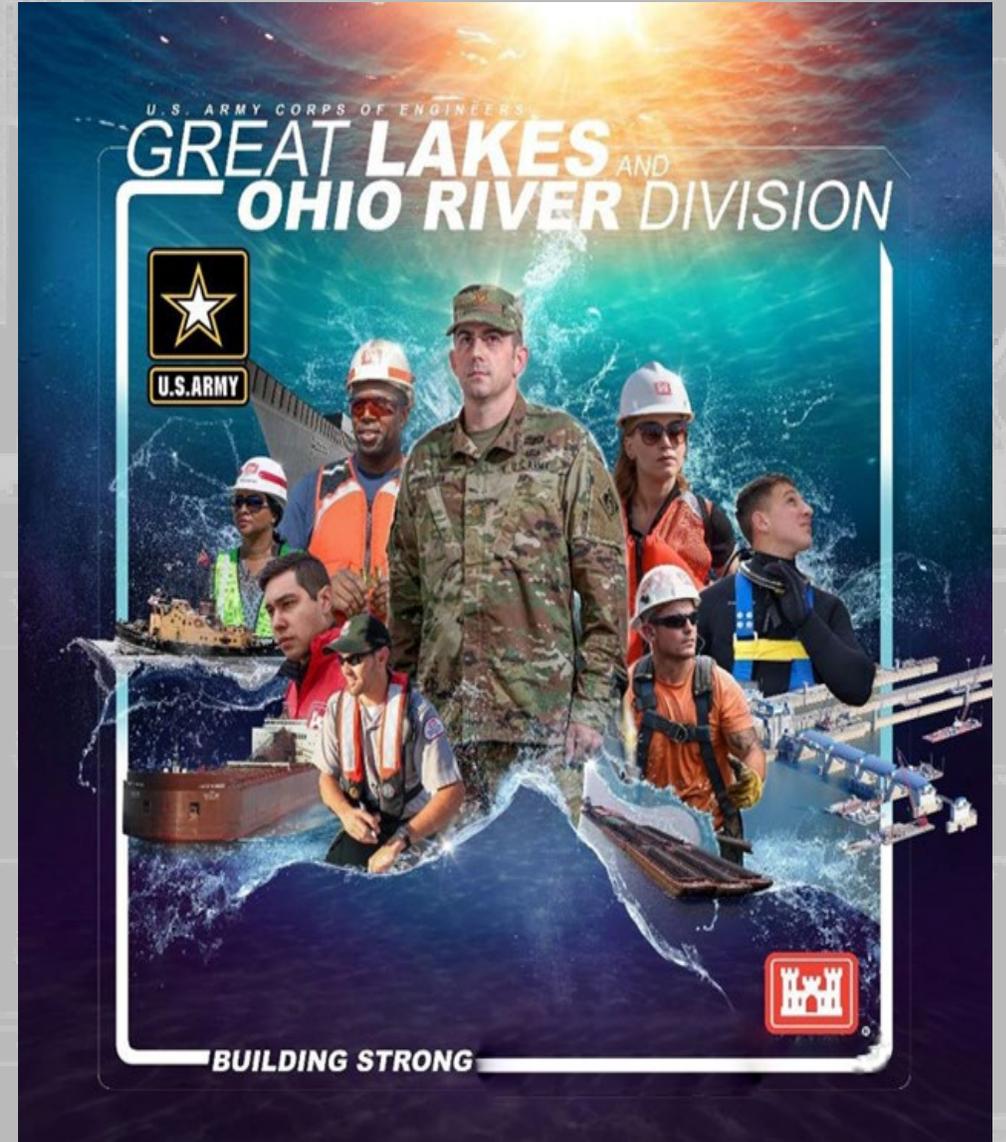


GREAT LAKES AND OHIO RIVER DIVISION CONSTRUCTION ROUNDTABLE

LTC Sonny Avichal
Commander, Nashville District
5 - 6 December 2019



US Army Corps
of Engineers®





AGENDA



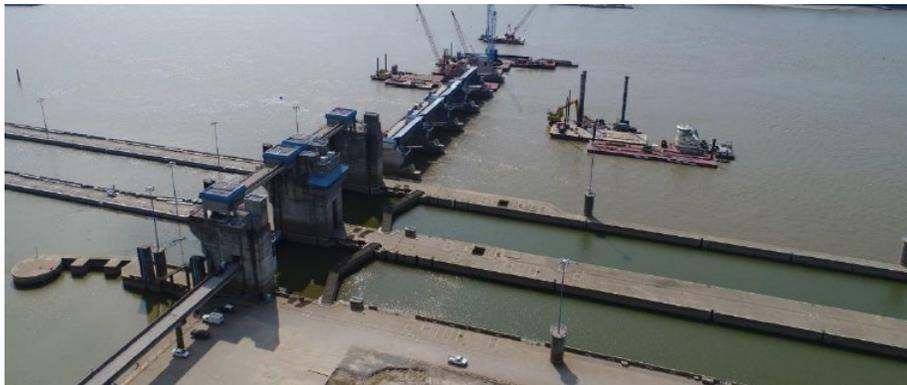
- ASSIGNED MISSION/ PROGRAM
(NAVIGATION/HYDROPOWER)
- DISTRICTS WITH MISSION
- PROJECTED WORK



RIVER NAVIGATION

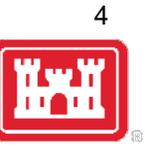


- LRD operates over 2,500 miles of navigable waterways
- Workload includes maintenance, repair, rehabilitation and replacement of lock and dam facilities
- Heavy civil construction in a marine environment
- Maintenance of shipping traffic during construction





DISTRICTS WITH INLAND RIVER NAVIGATION MISSION



DISTRICT	CDR	DDE	POC Name	POC #
Huntington	COL Evers	Mike Keathley	Eileen Hodges	304-399-5632
Louisville	COL Gant	Linda Murphy	Tim Fudge	502-315-6731
Nashville	LTC Avichal	Patricia Coffey	Diane Parks	615-736-7273
Pittsburgh	COL Short	Lenna Hawkins	Kathy Griffin	412-395-7234



CHICKAMAUGA LOCK REPLACEMENT

FUTURE CONTRACTS



Current

Lock Chamber - \$240M
Awarded: Sep 2017
Earliest Comp: Jun 2023

Future

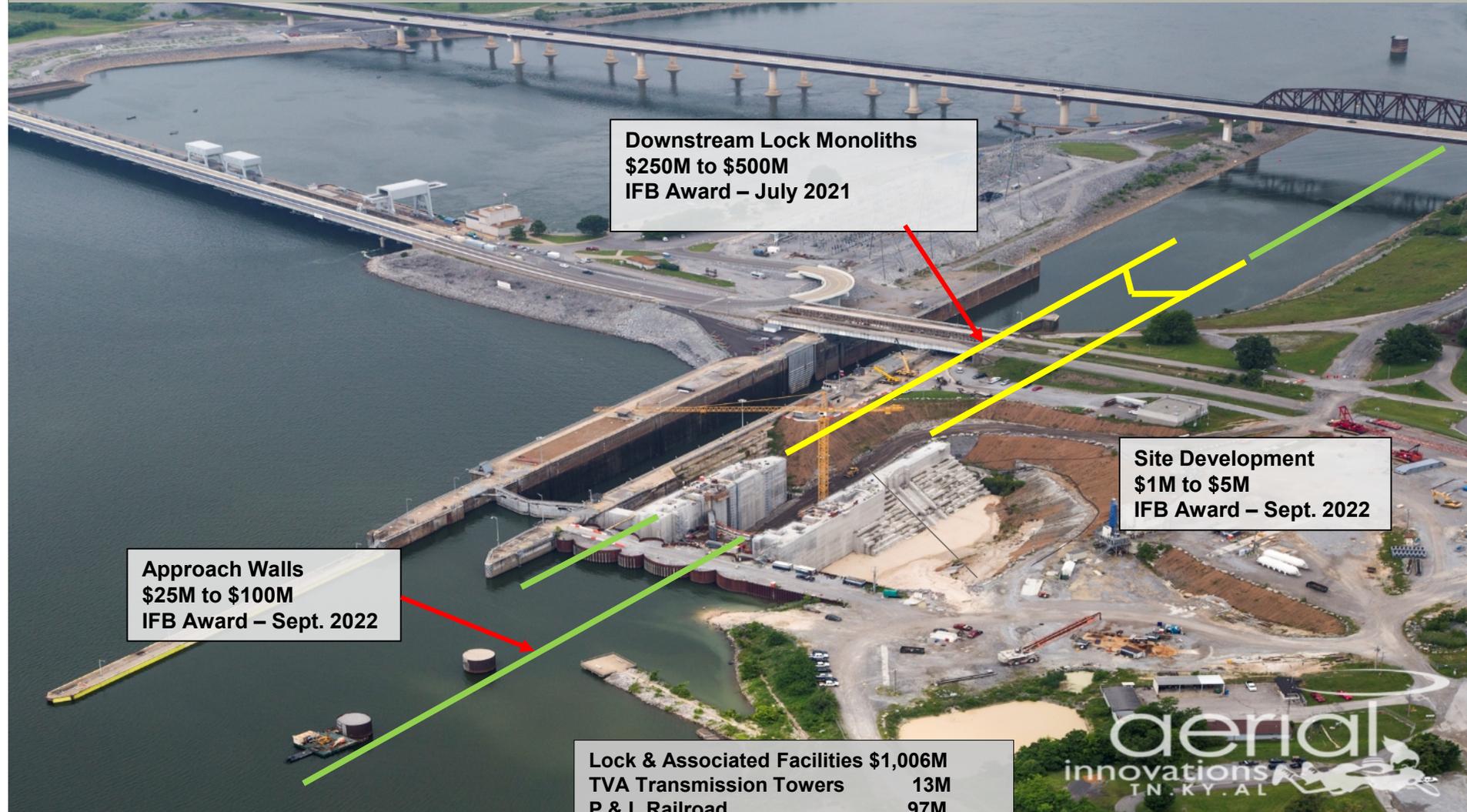
Approach Walls & Decommissioning
Award scheduled: Sep '21
\$100M - \$250M: IFB

Site Restoration
Award scheduled: Sep '23
\$5M - \$10M: IFB



KENTUCKY LOCK ADDITION

FUTURE CONTRACTS



Lock & Associated Facilities	\$1,006M
TVA Transmission Towers	13M
P & L Railroad	97M
Hwy 62 and other roadways	100M
Total	\$1,216M

\$485M Exp thru Sep 2019 = 40% complete





Future Contract (all IFB)	Ready to Advertise	Scope	Range
Demolition L&D 53 Phase II	1-Jun-20	Demolition of remaining dam components near the KY bank (Bear Traps and Fixed Weir) and remaining sections of the 600' lock chamber on the IL bank.	\$10 – 25M
Landside Demo L&D 52 and 53	1-Feb-20	Demolition of remaining landside structures at these two locations.	< \$2M
County Road Resurfacing	1-Feb-20	Resurface county road from project site to IL Highway 37	< \$1M
Resident Office Conversion	1-Jun-20	Convert Resident Office to storage warehouse.	< \$1M
Refurbish Bulkheads	1-Feb-20	Refurbish Maintenance Bulkheads located at Smithland	< \$1M
D/S Highwater Electrical	1-Feb-20	Install electrical service in downstream harbour area for use during highwater events	< \$1M
U/S Harbor Access	1-Feb-20	Construct tower and ramp access from shore to harbor area	< \$3M
Abutment Blanks	1-Feb-20	Construct two wicket blanks to be used in place of the first and last wickets adjacent to the abutments	< \$1M
Final Site Restoration	1-Jun-20	Complete restoration of the construction site	< \$3M

OLMSTED LOCK AND DAM

FUTURE CONTRACTS





REGIONAL NAVIGATION **FY20**, **FY21** & **FY22** FORECAST



Olmsted Lock and Dam

Demo L&D53 Phase II

>\$10M

Demo L&D52 landside

<\$2M

Resurface roadway

<\$1M

Convert R.O. to warehouse

<\$1M

Refurb. Maint. Bulkheads

<\$1M

D/S Harbor Elec.

<\$1M

Tower & Ramp Access

<\$3M

Wicket Blanks

<\$1M

Site Restoration

<\$3M

Kentucky Lock

Conduit Repair

\$250K-\$500K

Downstream Lock Monoliths

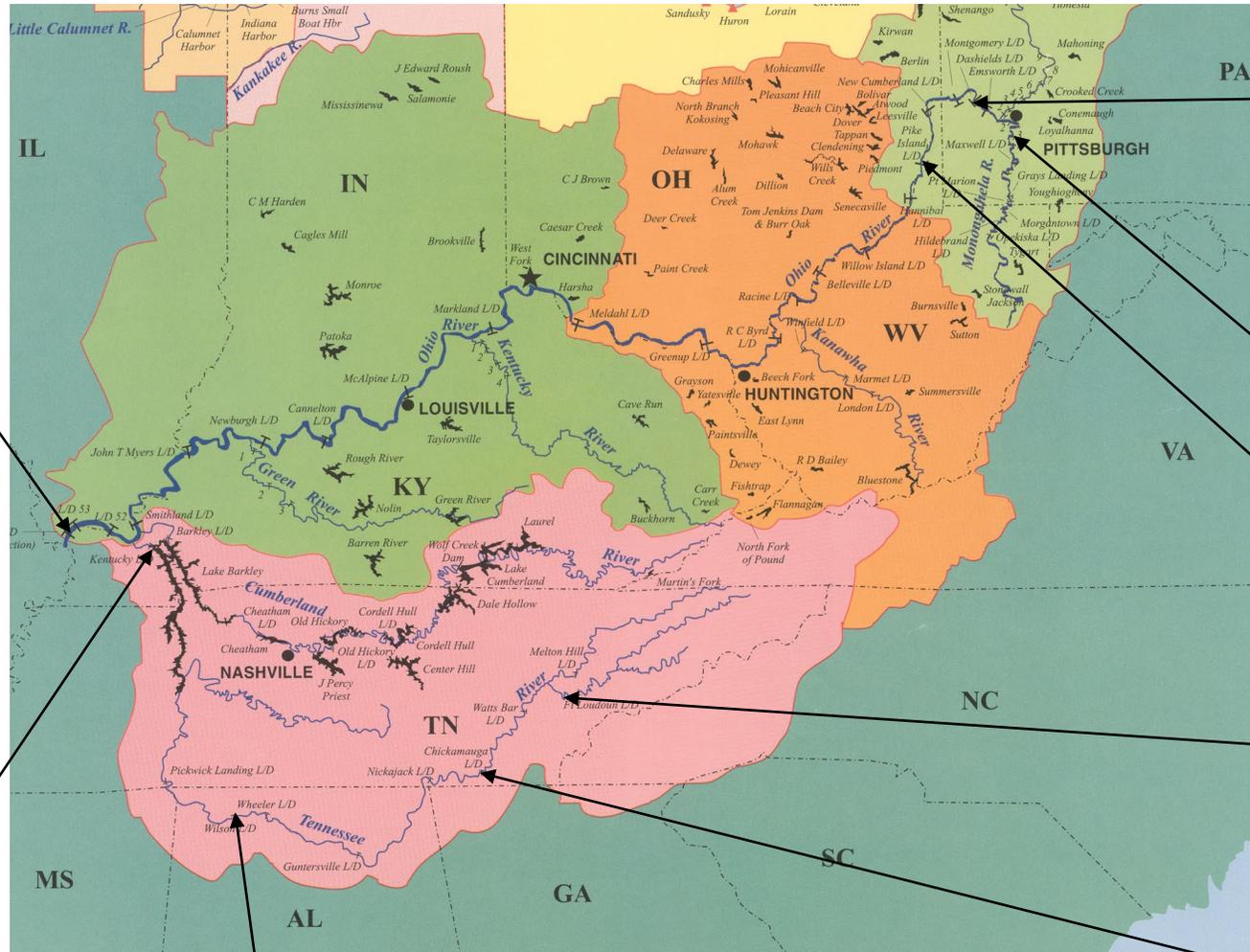
>\$10M

Site Development

\$1M-\$5M

Approach Walls

>\$10M



Dashields Lock and Dam

Install Waterway Booms

\$1M-\$5M

Waterway Dam Signage

\$1M-\$5M

Monongahela Lock and Dam 3

Remove Structure and Install Mod. Spur Dikes

>\$10M

Monongahela Pool 2 Clearing

TBD

\$1M-\$5M

Pike Island Lock and Dam

River Wall Mon. 33/34 Repair

\$500K-\$1M

Ft Loudoun Lock

HVAC for OPS Bldg.

\$100K-\$250K

Chickamauga Lock

Approach Walls and Decomm.

>\$10M

Site Restoration

FY23

\$5M-\$10M

Wilson Lock

Electrical Rehab Upper Boom Wall and Light Poles

\$250K-\$500K



RIVER NAVIGATION FORECAST



Location	Requirement	Year	FAR Range
Kentucky Lock, Grand Rivers, KY	Conduit Repair	2020	\$250K - \$500K
Wilson Lock, Florence, AL	Electrical Rehab Upper Boom Wall & Light poles from main lock crossover tunnel	2020	\$250K to \$500K
Ft Loudoun Lock, Lenoir City, TN	HVAC Installation for Operation Bldg.	2020	\$100K to \$250K
Kentucky Lock, Grand Rivers, KY	Downstream Lock Monoliths	2020	>\$10M
	Site Development	2022	\$1M-\$5M
	Approach Walls	2022	>\$10M
Chickamauga Lock, Chattanooga, TN	Approach Walls and Decommissioning	2021	>10M
	Site Restoration	2023	\$5M-\$10M
Olmsted Lock & Dam, KY & IL	Demolition of remaining L&D 53 Phase II components	2020	>\$10M
	Demolition of remaining L&D 52 landside structures	2020	<\$2M
	Resurface county road from project site to IL HWY 37	2020	<\$1M
	Convert Resident Office to warehouse	2020	<\$1M
	Refurbish maintenance bulkheads at Smithland	2020	<\$1M
	Install electrical service in downstream harbor for highwater use	2020	<\$1M
	Construct tower and ramp access from shore to harbor area	2020	<\$3M
	Construct two wicket blanks	2020	<\$1M
	Complete restoration of the construction site	2020	<\$3M
Monongahela Lock and Dam 3	Remove structure to streambed elevation; install modified spur dikes	2021	>\$10M
Monongahela Pool 2 Clearing	Removal of vegetation flooded by pool raise; may be Small Business	TBD	\$1M-\$5M
Dashields Lock & Dam, Coraopolis, PA	Install waterway booms	2020	\$1M-\$5M
	Waterway dam signage	2020	\$1M-\$5M
Pike Island River Wall, Wheeling WV	Repair monoliths 33/34 crack	2020	\$500K-\$1M



HYDROPOWER



- USACE is the largest renewable energy producer in the nation at 25% of hydropower
- LRD operates 10 hydroelectric generation plants
- Workload includes repair, replacement and modernization of aging equipment
- Electrical / Mechanical manufacture and construction
- Units have not been fully disassembled since installation



DISTRICTS WITH HYDROPOWER MISSION



DISTRICT	CDR	DDE	POC Name	POC #
Detroit	LTC Turner	Scott Thieme	Marie Strum	313-226-6444
Nashville	LTC Avichal	Patricia Coffey	Diane Parks	615-736-7273



CENTER HILL DAM AND POWER PLANT

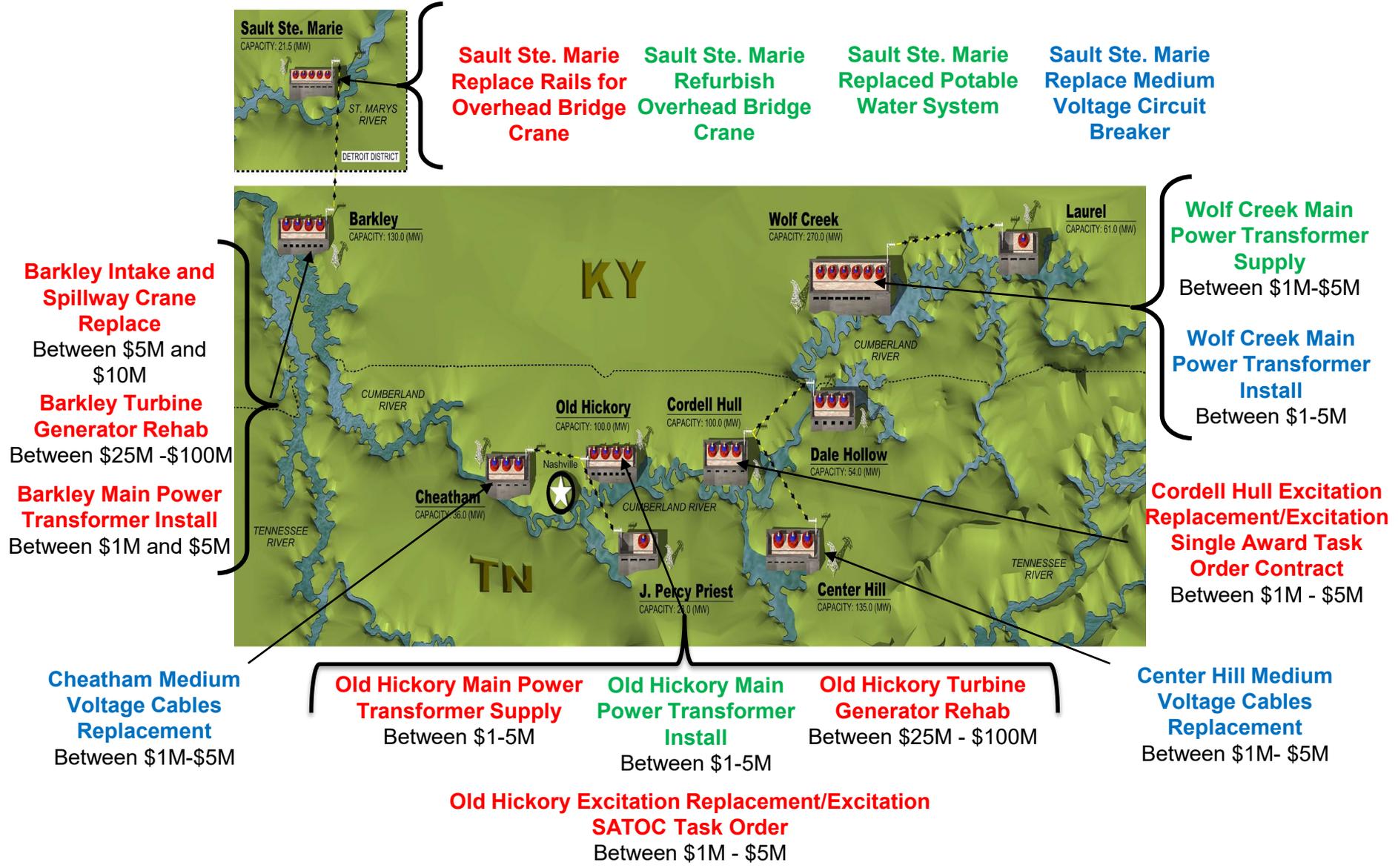


- Average equipment age – **60 years**
- **Declining** availability, reliability, efficiency
- Need for **rehab** and **modernization**
- Replace turbine runners, rewind generators
 - Improved efficiency and reliability
 - Improved water quality
 - Increased capacity





REGIONAL HYDROPOWER **FY20**, **FY21** & **FY22** FORECAST





U.S. ARMY

REGIONAL HYDROPOWER FORECAST



Location	Requirement	Year	FAR Range
Barkley Dam, Grand Rivers, KY	Turbine and Generator Rehab: 4 Kaplan Runners (Uprate), Rewind 3 Generators	2020	\$25M-\$100M
	Main Power Transformer Install	2020	\$1M-\$5M
	165-ton Intake Gantry Crane Replacement	2020	\$5M-\$10M
	Powerplant HVAC Replacement	2020	\$1M-\$5M
Cheatham Dam, Ashland City, TN	Medium Voltage Cables	2022	\$1M-\$5M
Center Hill Dam, Lancaster, TN	Medium Voltage Cables	2022	\$1M-\$5M
Cordell Hull Dam, Carthage, TN	Excitation System Replacement - 3 Units, Supply and Install, Rotating to Static	2019	\$1M-\$5M
Old Hickory Dam, Old Hickory, TN	Excitation Replacement - 4 Units, Supply and Install, Rotating to Static	2020	\$1M-\$5M
	Main Power Transformer Supply 2@13.2/69 kV, 100 MVA Three-Phase Xfmrs	2019	\$1M-\$5M
	Main Power Transformer Install - Includes relocation from existing yard	2021	\$1M-\$5M
	Turbine and Generator Rehab - 4 Kaplan Runners, 3 Generator Rewinds	2022	\$25M-\$100M
Wolf Creek Dam, Somerset, KY	Main Power Transformer Supply	2021	\$1M-\$5M
	Main Power Transformer Install	2022	\$1M-\$5M
Center Hill Dam, Lancaster, TN	Powerplant HVAC Replacement	2019	\$1M-\$5M
J Percy Priest Dam Hydropower Plant, Nashville, TN	Replace Breakers and Motor Control Centers	2020	\$250K - \$500K
St. Marys Falls Canal Hydroelectric Plant (Sault Ste. Marie, MI)	Replace rails for an overhead bridge crane	2020	\$250K-\$500K
	Repair / refurbish an overhead bridge crane	2021	TBD
	Replace potable water system	2021	TBD
	Replace Medium Voltage Circuit Breaker	2022	TBD



Questions/Comments?

