

# HDC NATIONAL PROGRAM OVERVIEW

Jordan Fink, Director, HDC  
Northwestern Division  
June 11, 2024  
Portland, OR

*"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."*



U.S. ARMY

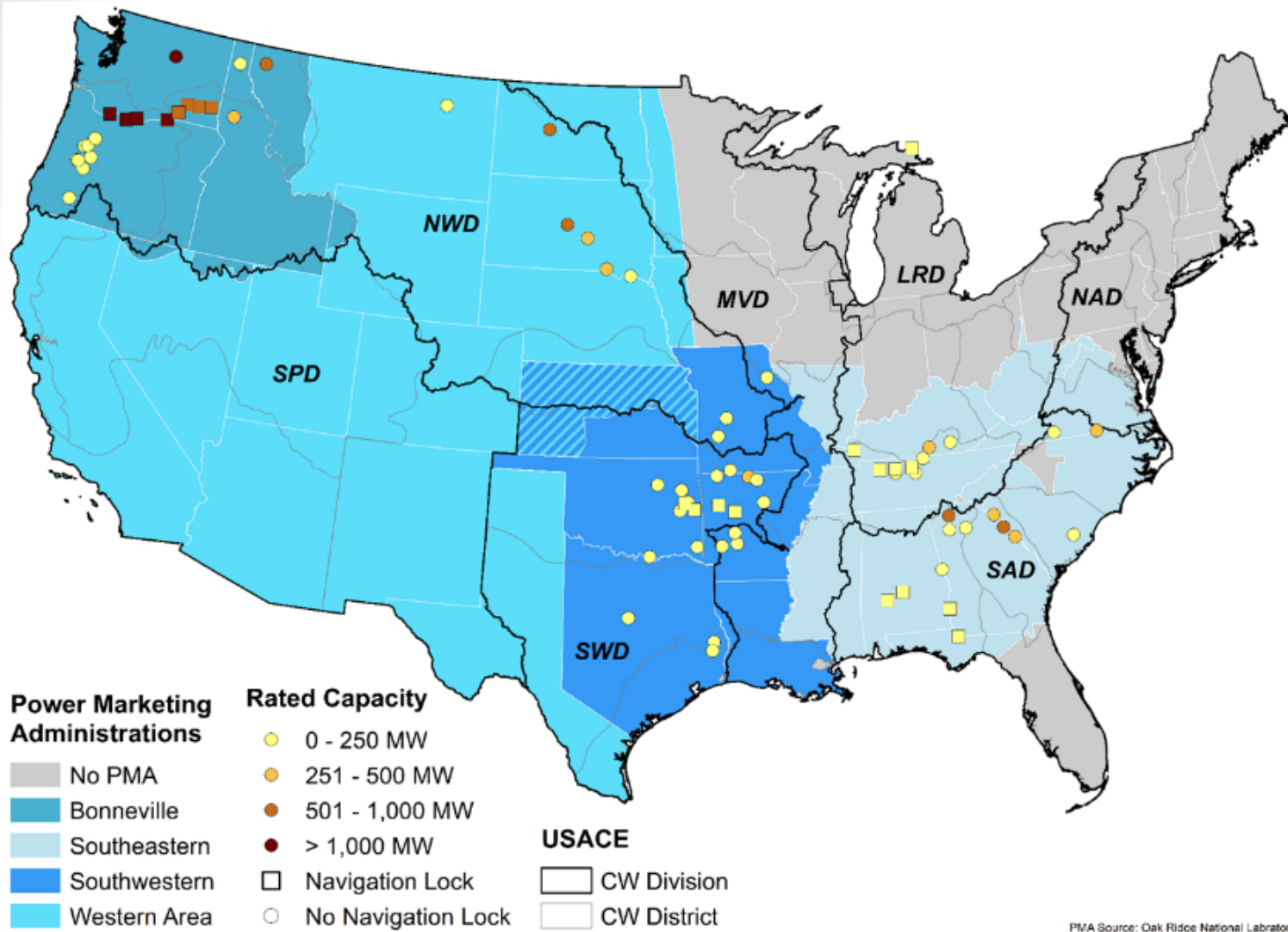


US Army Corps  
of Engineers®





# USACE HYDROPOWER



- USACE is the largest producer of Hydropower in U.S.
- 16 Hydropower producing Districts across Nation
- 75 Power plants across the country

PMA Source: Oak Ridge National Laboratory



# HYDROELECTRIC DESIGN CENTER

## Mission

Deliver superior quality products and services through specialized technical expertise, innovation, and partnerships.

## Vision

Excellence in hydropower planning and engineering.

## Core Values

Doing more than design

Part of the team

Efficient and consistent

Quality is paramount

Committed to responsive service

Adding value in all we do

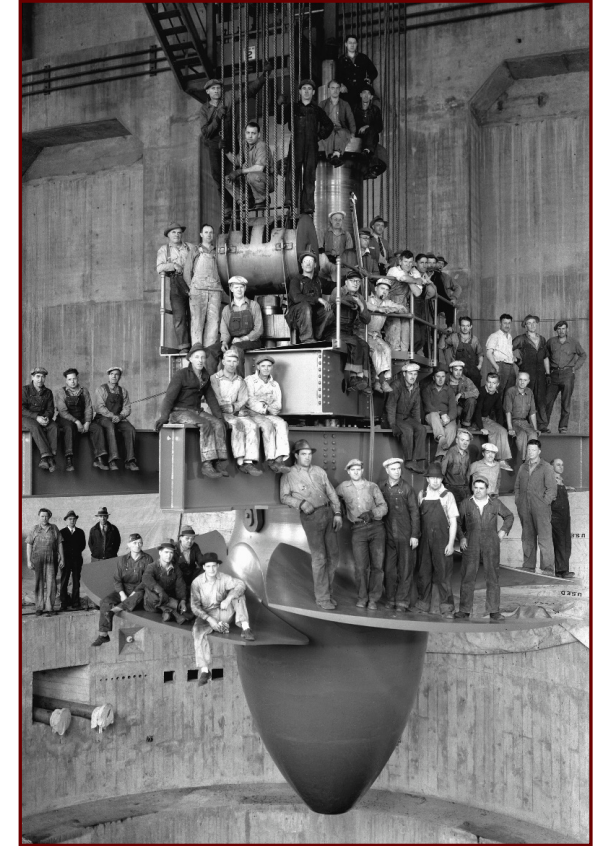
Leading industry

Build a healthy culture

We listen



*Established in 1948 to  
support new hydroelectric  
development on the  
Columbia River*





# HYDROELECTRIC DESIGN CENTER

## MCX & TCX (ER 10-1-53 – Roles and Responsibilities HDC)

- Mandatory Center of Expertise (MCX) for hydroelectric power economic evaluation, engineering and design
- Technical Center of Expertise (TCX) for pumping plant engineering and design

## HDC TEAM

- 168 in Portland, OR; 4 in Fwd Office Mobile, AL; and 14 remote employees

## NATIONAL HYDROPOWER PROGRAM SUPPORT & INITIATIVES

- R&D, Guidance Updates, Digital Transformation, Asset Mgt, Benchmarking, Reallocation, Uprate Studies, Prospect Courses
- EM 1110-2-3006 – Hydroelectric Power Plants Electrical and Mechanical Design (**PUBLISHED 2024**)

## INTERAGENCY

- GDACS Deployment to Grand Coulee and Hungry Horse (USBR)
- Hydropower Economic Modeling for USBR
- R&D collaboration with DOE (PMAs and National Labs) and USBR

## OVERSEAS

- Factory/foundries inspections, world-wide travel for QA
- Austria, Brazil, Poland, Italy, Canada, Israel, Mexico, S. Korea, England



# PUMP STATIONS – HDC TCX

ER 10-1-53 – Roles and Responsibilities Hydroelectric Design Center

*“...Technical Center of Expertise (TCX) for pumping plant engineering and design.”*

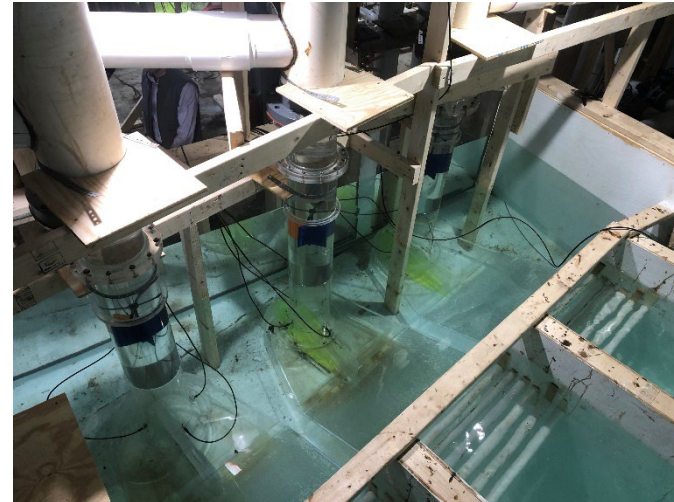
EM 1110-2-3105 – Mechanical and Electrical Design of Pumping Stations (Updated 2020)

## HDC Services (Augment District Teams)

- Design-Build or Design-Bid-Build Support
- Technical Reviews and Oversight
- AE SOW Preparation and Support
- EDC Support


## HDC – Connecting the CoP

- Engaging the Districts
- Presentations – HDCU, HQ, Mech CoP etc.
- Help Establish a Pump Station Working Group




*Dallas Floodways - Physical model testing of the Charlie II Pump Station for the City of Dallas, TX in Fort-Worth District.*


# THE HDC TEAM




Jordan Fink, PE  
*Director*




Vinnie DiBlasi, PE  
*Deputy Director*




**Automation Controls & Cyber Security Branch**  
Steven Ernst, PE



**Electrical Branch**  
John Yen, PE




**Front Office / Admin Officer**  
Scot Hale



**Hydropower Analysis Center**  
Mark Parrish



**Mechanical / Structural Branch**  
Jim Calnon, PE



**Program Integration & Delivery Branch**  
Bree Wilson, PMP, PE

**System Integration**  
Artyom Gnatyuk, PMP, CISSP

**Product Development**  
Chris Alexander, PE, CISSP

**Cybersecurity**  
Jim Crawford, CISSP

**Power Systems**  
Deanna Dinh, PE

**Generation Equipment**  
Teresa Casper, PE

**Protection Systems**  
Luke Raynor, PE

**Control Systems**  
Eric Vaughn, PE

**Largest Cyber Engineering Unit in USACE**  
Designing Cyber ICS & SCADA Solutions

**Largest Concentration of Electrical Engineers in USACE**  
Designing Electrical Hydropower Systems

**Largest Concentration of Mechanical Engineers in USACE**  
Designing Mechanical Hydropower Systems

**Turbomachinery**  
Kellen Shide, PE

**Mechanical Systems**  
Jim Kiel, PE

**Structural**  
Sharon Demeaux, PE

**Engineering Support**  
Eric Holzapfel

**Program Analysts**  
Dora Vanzandt

**Regional Design Managers & Design Managers**

**ACCS Program Manager**

**HQ Integration Lead**

# WHAT WE DO



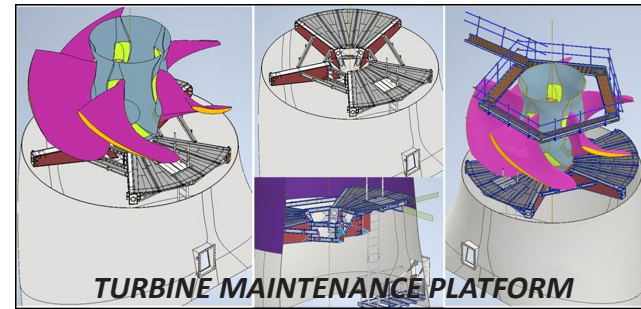
BRIDGE CRANE REPLACEMENT



SCALED TURBINE MODEL



TURBINE REPLACEMENT



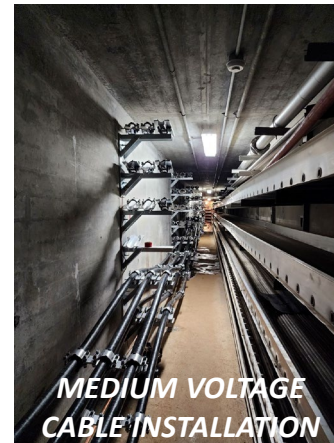
TURBINE MAINTENANCE PLATFORM



INTAKE GATE DOWNPULL TESTING



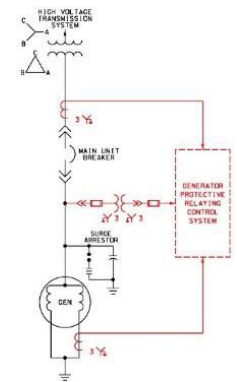
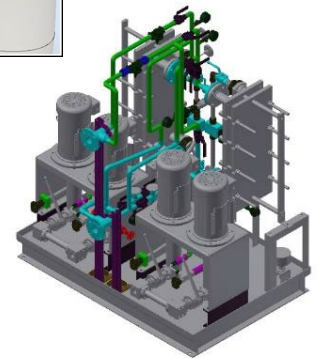
PUMP STATION SUPPORT



MEDIUM VOLTAGE CABLE INSTALLATION



FIRE SUPPRESSION SYSTEM UPGRADE



SWITCHYARD SUPPORT



GENERATOR TESTING



# IMPROVING USACE HYDRO RELIABILITY

### Chief Joseph Powerhouse



- In PHASE II (Construction)
- 27 New Generator Rewinds

### McNary Powerhouse



- In PHASE II (Model Testing)
- 14 New Turbine Runners
- 3 New Generator Rewinds

### Oahe Powerhouse



- PHASE IA complete (Engineering Study)
- 7 New Turbine-Generator Units
- Full Powertrain Assessment

### Fort Randall Powerhouse



- In PHASE II (Runner design)
- 8 New Turbine Runners
- 8 New Generator Rewinds

### Barkley Powerhouse



- In PHASE II (Fabrication)
- 4 New Turbine Runners
- 3 New Generator Rewinds

### Old Hickory Powerhouse



- In PHASE II (Construction)
- 3 New Turbine Runners
- Optional 4<sup>th</sup> Unit
- 3 New Generator Rewinds

### Wolf Creek Powerhouse



- In PHASE I (In Design)
- 6 New Turbine Runners
- 4 New Generator Rewinds

### John Day Powerhouse



- In PHASE I (in Design)
- 12-16 New Turbine Runners
- 12-16 New Generator Rewinds

### Philpott Powerhouse



- In PHASE II (Construction)
- 2 New Turbine Runners
- 2 New Generator Rewinds
- 15MW TO 19 MW

### Hartwell Powerhouse



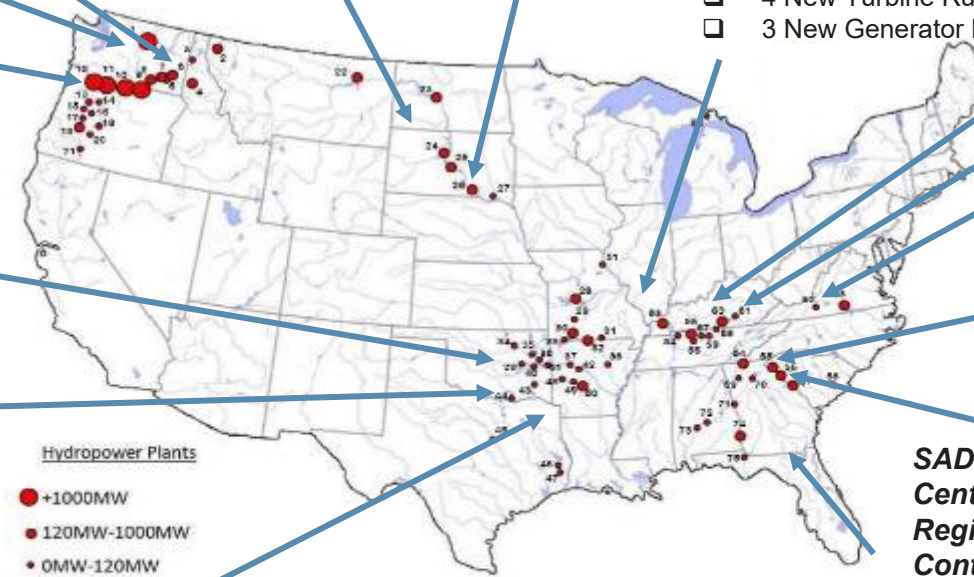
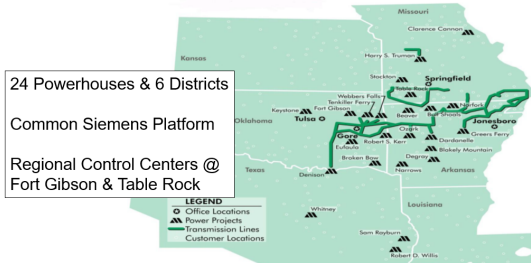
- In PHASE II (Construction)
- 2 New Generator Rewinds

### R. B. Russell Powerhouse



- In PHASE I (Contracting)
- 1 Rotor Repair
- Stator foundation repair

## SWPA6 CONSOLIDATED CONTROL



### Denison Powerhouse



- On-site construction complete
- Replacement of 2 Francis Units

### RS Kerr Powerhouse



- In PHASE II (Construction)
- 4 New Turbine Runners
- 4 New Generator Rewinds

## SAD Centralized Regional Control



- 13 Powerhouses & 3 Districts
- 2 Regional Control Centers





# MAJOR HYDROPOWER MECHANICAL AND ELECTRICAL EQUIPMENT REHABILITATION WORK



U.S. Army Corps of Engineers  
Potential Contracts

## MAJOR HYDROPOWER MECHANICAL AND ELECTRICAL EQUIPMENT REHABILITATION WORK

28 May 2024

Hydroelectric Design Center

Jordan Fink, Director..... 503-808-4200  
 Vinnie DiBlasi, Deputy Director..... 503-808-4210  
 John Yen, Electrical Branch Chief..... 503-808-4275  
 Jim Calnon, Mechanical/Structural Branch Chief..... 503-808-4250  
 Steven Ernst, Automated Controls & Cyber Security Branch Chief..... 503-808-3732  
 Bree Wilson, Program Integration & Delivery Branch Chief..... 503-808-4225  
 Mark Parrish, Hydropower Analysis Center Chief..... 503-808-5283



Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work

CONTACT	DISTRICT / AREA	PHONE NUMBER
Ellen Ballantine	Nashville/Detroit	503-808-4236
Brian Feeney	Seattle	503-808-4315
George Kalli	Willamette Valley/Rogue River	503-808-4535
Sarah Knowles	Walla Walla	503-808-4410
Andy Long	Fort Worth/Kansas City/Vicksburg/St. Louis	503-808-5290
Andy Long	Omaha	503-808-5290
Beth McNair	Little Rock/Tulsa	503-808-4270
Kallan Mrozek	HQ, NAD, TAD	503-808-4232
Locke Williams	Mobile/Savannah/Wilmington/Charleston	904-521-8186
Ryan Woolbright	Bonneville/The Dalles/John Day	503-808-4224



*Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work*

### **Turbine and Generator**

Fort Worth: Sam Rayburn – Turbine Rehab, FY28 or later  
2 Propeller Runner Repl, 180" D, 41,300 HP, 70' Head, 85.7 RPM

Fort Worth: Sam Rayburn – Generator Rehab, FY26 or later  
2 Rewinds, 31.5MVA

Kansas City: HS Truman – Generator Rehab, FY26 or later  
6 Rewinds, 28.4 MVA

Little Rock: Bull Shoals – Turbine and Generator Rehab, FY26 or later  
4 Francis Runner Repl, 152.5" D, 52,000 HP, 190' Head, 128.6 RPM, Potential Uprate  
4 Francis Runner Repl, 152.5" D, 62,000 HP, 190' Head, 128.6 RPM  
4 Rewinds, 54 MVA, Coils  
4 Rewinds, 54.5 MVA, Coils

Little Rock: Dardanelle – Cavitation Repairs, FY28

Little Rock: Greers Ferry – Generator Rewind, FY25  
2 Rewinds, 58,105 kVA, multi-turn coils

Mobile: Allatoona – Turbine Rehab, FY32  
2 Francis Runner Repl, 165" D, 50,000 HP, 135' Head, 112.5 RPM, Potential Uprate

Mobile: West Point – Turbine Rehab, FY30  
2 Fixed Blade Propeller Repl, 230" D, 51,500 HP, 58' Head, 100 RPM, Potential Uprate

Mobile: West Point – U1 Generator Rewind, FY28  
1 Rewind, Francis, 3.75 MVA, Coil

Nashville: Wolf Creek – Turbine and Generator Rehab, FY27  
6 Francis Runner Repl w/ DO, 175" D, 62,500 HP, 160 Head, 105.9 RPM, Potential Uprate  
4 Rewinds, 50 MVA, Coils

Nashville: Cordell Hull – Turbine and Generator Rehab, FY29  
3 Kaplan Runner Repl, 290" D, 58,200 HP, 44' Head, 65.5 RPM  
3 Rewinds, 37MVA

Portland: Bonneville – Powerhouse 2 Generator Rehab: Main & Fish – FY29  
8 Main Unit Rewinds, 70 MVA, 2 Fish Unit Rewinds 13.8 MVA

Portland: John Day – Fish Turbine Pump Units, FY27  
2 Francis Runner Repl, ~34" D, 1,050 HP, 83.5' Head, 525 RPM

Portland: John Day – Turbine Replacement and Generator Rewind, FY25  
Up to 16 Kaplan Runner Repl, 312" D, 212,400 HP, 103' Head, 90 RPM, Fixed and adjustable blade turbine runners, Improved fish passage turbine design  
16 Rewinds, 163 MVA, Bars, Potential Uprate

Portland: Foster – Turbine Refurbishment, FY26 or later  
2 Kaplan refurb, 95" D, Refurbish blade operating mechanisms, Generator Slip Ring Repair

Portland: Lost Creek – Generator Windings, FY29  
2 Units, 25.8MVA



*Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work*

Seattle: Albeni Falls – Generator Rewind and Bearing Rehabilitation, FY30  
3 Units, ~20MVA, Coil

Seattle: Libby – Turbine Runner Replacement and Generator Rewind, FY27  
4 Francis Runners, 179" D, 165,000 HP, 300' Head, 128.6 RPM  
5 Generator Rewinds, 121 MVA, Coil

Seattle: Chief Joseph – Generator Rewind Units 17-27, FY30  
11 Rewinds, Francis, 115 MVA, Bar

Tulsa: Denison – Station Service Units Rehab or Replace, FY26 or later  
2 600 kW turbines, 480V generators

Tulsa: Keystone – Turbine Rehab, FY26 or later  
2 Fixed Blade, 195.375" D, 49,000 HP, 74' Head, 120 RPM, Potential Uprate

Tulsa: Eufaula – Generator Rewind, FY25  
3 Francis, 31,579 kVA, multi-turn coils, 182" D, 41,500 HP, 96' Head, 100 RPM

Walla Walla: Little Goose – Discharge Ring Upgrade and Turbine Blade Cavitation, FY25  
6 Kaplan, 312" D, 212,400 HP, 90 RPM

Walla Walla: Lower Granite – Blade Sleeve Upgrade, FY25  
6 Kaplan, 312" D, 212,400 HP, 90 RPM

### **Excitation System**

Charleston: St. Stephen – Digital Static Excitation System Retrofit, FY26, 3 Units

Fort Worth: Sam Rayburn – Digital Static Excitation System Replacement, FY25 or later

Little Rock: Beaver – Analog to Digital Static Excitation System Replacement, FY25

Little Rock: Greers Ferry – Analog to Digital Static Excitation System Replacement, FY25

Little Rock: Table Rock – Analog to Digital Static Excitation System Replacement, FY25

Mobile: West Point – U1 Rotating to Digital Static Excitation System Replacement, FY28  
1 Unit, under investigation

Mobile: Walter F. George – Digital Static Excitation System Retrofit, FY26, 4 Units

Portland: John Day – Digital Static Excitation System Controls Replacement, FY26 or later  
16 Units, under investigation

Portland: The Dalles – Digital Static Excitation System Replacement, FY28  
21 Main Units and 2 Fish Units, under investigation

Portland: Willamette Valley (under investigation):  
Big Cliff – Digital Static Excitation System Controls Replacement, FY32, 1 Unit  
Cougar – Digital Static Excitation System Replacement, FY30, 2 Units  
Dexter – Digital Static Excitation System Replacement, FY30, 1 Unit  
Detroit – Digital Static Excitation System Controls Replacement, FY28, 2 Units  
Foster – Digital Static Excitation System Controls Replacement, FY33, 2 Units  
Green Peter – Digital Static Excitation System Controls Replacement, FY29, 2 Units and 1 Fish Unit  
Hills Creek – Digital Static Excitation System Replacement, FY28, 2 Units



*Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work*

Lookout Point – Digital Static Excitation System Replacement, FY30, 3 Units  
 Portland: Lost Creek – Digital Static Excitation System Replacement, FY30  
 2 Units, under investigation  
 Savannah: J Strom Thurmond – Digital Static Excitation System Replacement, FY26, 7 units  
 Savannah: Hartwell – Digital Static Excitation System Retrofit, FY26, 5 Units  
 Savannah: Richard B. Russel – Digital Static Excitation System Retrofit FY26, 8 Units  
 Seattle: Albeni Falls – Digital Static Excitation System Controls Replacement, FY30  
 3 Units, under investigation  
 Seattle: Chief Joseph – Station Service Digital Static Excitation System Replacement, FY25  
 2 Units  
 Seattle: Chief Joseph – Units 1-16 Digital Static Excitation System Controls Replacement, FY24  
 16 Units  
 Tulsa: Denison – Digital Static Excitation System Controls Replacement, FY26  
 2 Units, under investigation  
 Tulsa: Keystone – Excitation System Replacement, FY27  
 Tulsa: Tenkiller Ferry – Digital Static Excitation System Controls Replacement, FY26  
 2 Units, under investigation  
 Tulsa: Webbers Falls – Digital Static Excitation System Controls Replacement, FY26  
 2 Units, under investigation  
 Wilmington: John H. Kerr – Digital Static Excitation System Retrofit, FY26, 2 Station Service  
 Units  
 Wilmington: Philpott – Digital Static Excitation System Retrofit, FY26, 1 Station Service Unit

**Governor**

Little Rock: Greers Ferry – Governor Rehab, FY27  
 Mobile: Buford – Governor Upgrades, FY26  
 Mobile: Walter F. George – Governor Upgrades, FY27  
 St. Louis: Clarence Cannon – Governor Upgrades, FY24 or later  
 Wilmington: John H. Kerr – Digital Governor Supply Upgrades, FY25

**Crane and Hoist**

Ft. Worth: Sam Rayburn – Draft Tube Crane Replacement, FY26 or later  
 Kansas City: H.S. Truman – Draft Tube Crane Replacement, FY25 or later  
 Little Rock: Beaver – Bridge Crane Rehab, FY25  
 Little Rock: Bull Shoals – Draft Tube Crane Rehab FY26  
 Little Rock: Dardanelle – Bridge Crane Replacement FY25  
 Little Rock: Greers Ferry – Bridge Crane Rehab FY25  
 Little Rock: Greers Ferry – Draft Tube Crane Rail, Cable, and Trolley Rehab, FY26  
 Little Rock: Table Rock – Bridge Crane Rehab FY26



*Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work*

Mobile: Allatoona – Headgates Machinery and Controls Rehab, FY26  
 Mobile: Buford – Headgates Machinery and Controls Rehab, FY26  
 Mobile: Walter F George – Headgates Machinery and Controls Rehab, FY27  
 Mobile: West Point – Headgates Machinery and Controls Rehab, FY27  
 Nashville: Wolf Creek – Bridge Crane Rehab, FY25 (MATOC)  
 Nashville: Cheatham – Intake Crane Replacement, FY25 (MATOC)  
 Nashville: Cordell Hull – Intake Crane Replacement, FY26 (MATOC)  
 Nashville: Cordell Hull – Bridge Crane Rehab, FY27 (MATOC)  
 Nashville: Cheatham – Bridge Crane Rehab, FY29 (MATOC)  
 Omaha: Gavins Point – Intake Crane and Rail Replacement, FY25  
 Portland: John Day – Bridge Crane Rails, FY26  
 Portland: John Day – Tailrace Crane, FY28  
 Portland: The Dalles – Spillway Crane, FY28  
 Portland: Green Peter Bridge Crane, FY25  
 Portland: Lost Creek Bridge Crane, FY28  
 Savannah: RB Russell – Bridge Crane Rehab, FY29  
 Savannah: RB Russell – Draft Tube Crane Replacement, FY27  
 Seattle: Albeni Falls – 250-Ton Powerhouse Bridge Crane Rehabilitation, FY24  
 Seattle: Libby – 20-Ton Selective Withdraw Gantry Crane Rehabilitation, FY27  
 Tulsa: Eufaula – Bridge Crane Rehab, FY27  
 Tulsa: Fort Gibson – Draft Tube Crane Rehab, FY26  
 Tulsa: Fort Gibson – Bridge Crane Rehab, FY26  
 Tulsa: Keystone – Draft Tube Crane Rehab, FY26  
 Walla Walla: Lower Monumental – Bridge Crane Wheel and Drive System Upgrade, FY24  
 Walla Walla: Ice Harbor – Intake Gate Hydraulic System Upgrades, FY25  
 Walla Walla: Lower Granite – Intake Gate Hydraulic System, FY25  
 Walla Walla: Little Goose – Intake Gate Hydraulic System, FY26  
 Walla Walla: Lower Monumental – Intake Gate Hydraulic System, FY26  
 Walla Walla: Little Goose – Tailrace Crane Replacement, FY29  
 Walla Walla: Lower Granite – Tailrace Crane Replacement, FY28  
 Walla Walla: McNary – Second Bridge Crane PLC, FY24

**Metal Fabrication (Bulkhead, Gate, Platform)**

Fort Worth: HSS Gates and Bulkheads, FY25  
 Mobile: Allatoona – Headgate and Machinery Rehab, FY26  
 Mobile: Buford – Headgate and Machinery Rehab, FY26  
 Mobile: Walter F. George – Headgate and Machinery Rehab, FY27  
 Mobile: West Point – Headgate and Machinery Rehab, FY27  
 Portland: Bonneville – Headgate Repair Pit Rehab, FY25  
 Portland: Bonneville – Spillway Gate Repair & Storage Pit, FY24



*Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work*

Portland: Bonneville – B2 Submerged Traveling Screen Rehab, FY26  
 Portland: Bonneville – Spillway Gates, FY34  
 Portland: John Day – Spillway Gate Brakes and Gearboxes, FY28  
 Portland: Big Cliff – Intake Gates and Trash Racks Replacement, FY26  
 Portland: Detroit – Intake Gates Replacement & Trash Racks Rehab., FY27  
 Portland: Green Peter – Trashracks and Intake Gates, FY26  
 Portland: Dexter - Trashracks and Intake Gates, FY26  
 Portland: Foster - Trashracks and Intake Gates, FY29  
 Seattle: Albeni Falls – Intake Gate Replacement, FY26  
 Seattle: Albeni Falls – Intake Gate Rehab, FY27  
 Seattle: Albeni Falls – Trashracks Rehab, F28  
 Seattle: Albeni Falls – Turbine Maintenance Platform, FY24  
 Seattle: Albeni Falls – Turbine Maintenance Platform, FY24  
 Seattle: Chief Joseph – Intake Gates and Cylinder Rehab or Replacement, FY27  
 Seattle: Chief Joseph – Turbine Maintenance Platform, FY25  
 Seattle: Libby – Selective Withdrawal Pressure Relief Bulkhead, FY28  
 Tulsa: Broken Bow – Rehab Intake Gates and Controls, FY27  
 Tulsa: Denison – Intake Gates and Hoists Replacement, FY26  
 Tulsa: Fort Gibson – Intake Gates and Hoists, FY27  
 Tulsa: Tenkiller – Draft Tube Gate Bulkhead & Lifting Beam, FY24  
 Walla Walla: McNary – Turbine Maintenance Platform, FY25  
 Walla Walla: Ice Harbor – Turbine Maintenance Platform, FY25  
 Walla Walla: Lower Monumental – Draft Tube Bulkhead Replacement, FY27

**Balance of Plant**

Little Rock: Bull Shoals – HVAC System Replacement, FY29  
 Portland: Bonneville – Powerhouse 1 HVAC, FY27  
 Portland: John Day – Powerhouse Floor Drainage Improvements, FY24  
 Portland: John Day – Powerhouse Security System Upgrades, FY25  
 Portland: John Day – Powerhouse Emergency Notification System, FY26  
 Portland: John Day – Vibration and Air Gap Monitoring, FY26  
 Portland: John Day – Synchronous Condensing Reconfiguration, FY29  
 Portland: The Dalles – Station Air System, FY25  
 Seattle: Chief Joseph – HVAC and Controls Upgrades, FY30  
 Seattle: Chief Joseph – Powerhouse Sump Pump and Controls, FY24  
 Walla Walla: Ice Harbor – Powerhouse HVAC System Upgrade, FY26  
 Walla Walla: Little Goose – Powerhouse HVAC System Upgrade, FY28  
 Walla Walla: Lower Monumental – Powerhouse HVAC System Upgrade, FY26  
 Walla Walla: Lower Granite – Heat Pumps / HVAC Upgrade, FY28



*Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work*

**Fire Suppression & Fire Protection/Detection**

Ft. Worth: Sam Rayburn – Fire Detection System, FY26 or later  
 Kansas City: Stockton – Fire Protection System Replacement, FY26 or later  
 Kansas City: HS Truman – Fire Protection System Replacement, FY26 or later  
 Little Rock: Beaver – CO2 System Replacement, FY26  
 Little Rock: Dardanelle – CO2 System Replacement, FY26  
 Little Rock: Greers Ferry – Fire Suppression (clean agent) and Detection, FY25  
 Little Rock: Norfolk – Fire Suppression (clean agent) and Detection System Replacement, FY25  
 Little Rock: Ozark – Fire Detection, FY26  
 Little Rock: Table Rock – Fire Detection, FY26  
 Mobile: Buford – Generator Fire Suppression System Replacement, FY29  
 Mobile: Carters – Generator Fire Suppression System Replacement, FY30  
 Mobile: Jones Bluff (RF Henry) – Generator Fire Suppression System, FY31  
 Portland: Bonneville – Transformer Fire Protection, FY30  
 Portland: Bonneville – Generator Fire Protection, FY27  
 Portland: John Day – Transformer Fire Protection, FY26  
 Portland: The Dalles – Generator Fire Protection, FY26  
 Portland: The Dalles – Transformer Fire Protection, FY29  
 Portland: Dexter – Fire Detection/HVAC/Life Safety, FY28  
 Portland: Foster – Fire Detection, HVAC, & Life Safety, FY27  
 Portland: Lost Creek – Fire Detection & Fire Protection, FY28  
 Savannah: Hartwell – Transformer Fire Suppression System, FY32  
 Seattle: Albeni Falls – CO2 Fire Suppression System, FY29  
 Seattle: Chief Joseph – Facility Plant Fire Detection and Protection, FY27  
 Seattle: Libby – CO2 Fire Suppression System, FY30  
 Walla Walla: Dworshak – Transformer Deluge System Modifications, FY27  
 Walla Walla: Ice Harbor – Control Room Life Safety/Fire Alarm System Upgrades, FY25  
 Walla Walla: Ice Harbor – Transformer Deluge Fire Protection System Upgrades, FY28  
 Walla Walla: Little Goose – Control Room Life Safety/Fire Alarm System Upgrades, FY26  
 Walla Walla: Lower Monumental – Control Room Life Safety/Fire Alarm System Upgrades, FY27  
 Walla Walla: Lower Granite – Control Room Life Safety/Fire Alarm System Upgrades, FY26  
 Walla Walla: McNary – Control Room Life Safety/Fire Alarm System Upgrades, FY25

**Controls**

Portland: John Day – Control System Upgrade, FY27  
 Portland: The Dalles – Control Room Modernization, FY26  
 Seattle: Chief Joseph – Annunciation Upgrade, FY27  
 Seattle: Chief Joseph – Powerhouse Control Room Reliability Upgrades, FY27



*Potential USACE Contracts for  
Major Hydropower Mechanical and Electrical Equipment Rehabilitation Work*

Seattle: Chief Joseph – Protective Relays – FY28  
 Kansas City: Harry S Truman – Intake Gate Controls, FY25  
 Walla Walla: Little Goose – Powerhouse Controls/Annunciation, FY25  
 Walla Walla: Lower Monumental – Powerhouse Controls/Annunciation, FY26  
 Walla Walla: Ice Harbor – Powerhouse Controls/Annunciation, FY28

### **DC/Preferred AC Systems**

Nashville: Wolf Creek – DC/Preferred AC Systems Install, FY24  
 Nashville: J Percy Priest – DC/Preferred AC Systems Install, FY26  
 Portland: Bonneville – Powerhouse 1 Preferred AC/DC Improvements, FY26

### **Electrical Low Voltage (Less than 1,000V)**

Kansas City: Stockton – 480V Switchgear Replacement, FY26  
 Little Rock: Bull Shoals – 480V Switchgear and MCC, FY25  
 Little Rock: Beaver – 480V Switchgear and MCC, FY24  
 Little Rock: Table Rock – 480V Switchgear and MCC, FY24  
 Little Rock: Ozark – 480V Switchgear and MCC, FY25  
 Little Rock: Dardanelle – 480V Switchgear and MCC, FY25  
 Omaha: Fort Peck – PH1 Cubicle Room Switchgear Upgrade, FY24 or FY25  
 Portland: Lost Creek – Motor Control Centers and Cabling, FY29  
 Seattle: Chief Joseph – 480V Station Power SQ 4&5, SU17-27 Replacement, FY29  
 Seattle: Chief Joseph – 480V Station Power DSQ 1&2, SQ1&3 Replacement, FY26  
 Tulsa: Broken Bow – 480V Switchgear and MCC, FY27  
 Tulsa: Eufaula – Motor Control Centers Replacement, FY26  
 Tulsa: Fort Gibson – 480V Switchgear and Transformers, FY24  
 Vicksburg: Narrows – 480V Switchgear and MCC Replacement, FY27  
 Vicksburg: DeGray – 480V Switchgear and MCC, FY26  
 Vicksburg: Blakely Mountain – 480V Switchgear and MCC, FY25

### **Electrical Medium Voltage (More than 1,000V)**

Ft. Worth: Sam Rayburn – 15kV Switchgear Replacement, FY26  
 Little Rock: Bull Shoals – Modernization Electrical Install, FY27  
 Little Rock: Ozark – Replace 161-kV Switches, FY25  
 Little Rock: Ozark – Replace 15kV Generator Cables, FY25  
 Little Rock: Greers Ferry – 15kV Breakers/Switchgear and Station Service Transformer Replacement, FY26  
 Nashville: Center Hill – Station Service, FY27  
 Nashville: Old Hickory – Station Service, FY28  
 Portland: Bonneville – Powerhouse 1 Main Unit Breaker Replacement Upgrades, FY25



*Potential USACE Contracts for  
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Portland: Bonneville – Powerhouse 1 Isophase Bus/Duct, FY30  
 Portland: Bonneville – Powerhouse 2 Isophase Bus/Duct, FY29  
 Portland: John Day – Isophase Bus & Duct, FY27  
 Portland: The Dalles – Isophase Bus & Duct, FY28  
 Portland: John Day – XJ Disconnect Switches, FY32  
 Portland: Green Peter Main Unit Breakers and Electrical Reliability Upgrades, FY26  
 Portland: Cougar Electrical Reliability (Station Service) Upgrades, FY29  
 Portland: Hills Creek – Main Unit Breakers and Electrical Reliability Upgrades, FY25  
 Seattle: Albeni Falls – Emergency Diesel Generator, FY28  
 Seattle: Chief Joseph – Isophase Bus Rehab Unit 1-16, FY24 or FY25  
 Seattle: Chief Joseph – SF6 Breaker Refurbishment, FY27  
 Seattle: Chief Joseph – XJ Breaker Disconnect, FY26  
 Seattle: Chief Joseph – Isophase Bus Rehab Unit 17-27, FY30  
 Seattle: Libby – SF6 Breaker Refurbishment, FY27  
 Tulsa: Denison – Switchyard Power Circuit Breaker Replacement, FY24  
 Tulsa: Tenkiller Ferry – Station Service System and Transformer Feeders Replacement, FY24  
 Vicksburg: Blakely Mountain – Oil Circuit Breaker Replacement Supply, FY25 or later  
 Vicksburg: DeGray – Oil Circuit Breaker Replacement Supply, FY25 or later  
 Vicksburg: Narrows – Oil Circuit Breaker Replacement Supply, FY25 or later  
 Walla Walla: Little Goose – 500kV Transmission Line Configuration Upgrade, FY27  
 Walla Walla: Little Goose – Isophase Bus Reconfiguration, FY28  
 Walla Walla: Lower Monumental – 500kV Transmission Line Configuration Upgrade, FY27  
 Walla Walla: Lower Monumental – Isophase Bus Reconfiguration, FY28  
 Walla Walla: Lower Granite – 500kV Transmission Line Configuration Upgrade, FY26  
 Walla Walla: Lower Granite – Isophase Bus Reconfiguration, FY28

### **Large Power Transformer**

Little Rock: Bull Shoals – Main Unit 3 Transformer Supply and Install (SF6), FY24  
 Little Rock: Bull Shoals – Transformer Supply and Install (SF6), FY27  
 Little Rock: Beaver – Transformer Supply and Install, FY27  
 Little Rock: Ozark – GSU Transformer Repairs, FY26  
 Mobile: West Point – U1 Transformer Replacement, FY28  
 Nashville: Cheatham – Transformer Supply and Install, FY29  
 Omaha: Fort Peck – T4 / T5 Transformer Replacement – Supply, FY25  
 Omaha: Fort Peck – T4 / T5 Transformer Replacement – Install, FY27  
 Omaha: Oahe – GSU Transformer Replacement – Supply, FY25  
 Omaha: Oahe – GSU Transformer Replacement – Install, FY27  
 Portland: John Day – GSU Transformer Replacement – Supply FY27  
 Portland: The Dalles – Main Unit Transformers 9-11 Repair, FY25



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### **Large Power Transformer**

Little Rock: Bull Shoals – Main Unit 3 Transformer Supply and Install (SF6), FY24  
 Little Rock: Bull Shoals – Transformer Supply and Install (SF6), FY27  
 Little Rock: Beaver – Transformer Supply and Install, FY27  
 Little Rock: Ozark – GSU Transformer Repairs, FY26  
 Mobile: West Point – U1 Transformer Replacement, FY28  
 Nashville: Cheatham – Transformer Supply and Install, FY29  
 Omaha: Fort Peck – T4 / T5 Transformer Replacement – Supply, FY25  
 Omaha: Fort Peck – T4 / T5 Transformer Replacement – Install, FY27  
 Omaha: Oahe – GSU Transformer Replacement – Supply, FY25  
 Omaha: Oahe – GSU Transformer Replacement – Install, FY27  
 Portland: John Day – GSU Transformer Replacement – Supply FY27  
 Portland: The Dalles – Main Unit Transformers 9-11 Repair, FY25  
 Portland: The Dalles – Main Unit Transformers 9-11 Replacement Supply, FY28  
 Portland: Detroit – Main Unit Transformer Replacement Supply, FY25  
 Portland: Detroit – Main Unit Transformer Replacement Install, FY26  
 Portland: Dexter – GSU Transformer, FY27  
 Portland: Foster – GSU Transformer, FY28  
 Portland: Lookout Point – GSU Transformers, FY27  
 Seattle: Chief Joseph – Transformer Replacement (T1-4), FY30  
 Seattle: Libby – Transformer Refurbishment (T2), FY28  
 Tulsa: Keystone – GSU Rehab/Replacement, FY28  
 Walla Walla: Little Goose – GSU T2 spare supply, FY24  
 Walla Walla: Lower Snake River – GSU T1 spare supply, FY24  
 Walla Walla: Ice Harbor – Transformer 1-5 Replacement, FY28  
 Walla Walla: Little Goose – Transformer Replacement, FY27  
 Walla Walla: Lower Monumental – Transformer Replacement, FY27  
 Walla Walla: Lower Granite – Transformer Replacement, FY27  
 Wilmington: Island Creek – Transformer Supply, FY24  
 Wilmington: Island Creek – Transformer Switchyard Install, FY26

### **Turbine Oil Accountability and Replacement**

Portland: John Day – Powerhouse Oil Detection System, FY25  
 Portland: The Dalles – Oil Accountability Measures, FY24

### **Coolers, Piping, and Large Valves**

Little Rock: Bulls Shoals – Penstock Fill Valves, FY28  
 Portland: John Day – Unwatering System Replacement, FY26  
 Tulsa: Broken Bow – Generator Air Cooler Piping Replacement, FY25  
 Tulsa: Denison – Penstock/Expansion Joint and Drain Valve, FY27  
 Tulsa: Keystone – Unit 2 Penstock Expansion Joint, FY27  
 Vicksburg: Blakely Mountain – Butterfly Valve Rehab, FY25  
 Walla Walla: Dworshak Emergency Gate Cylinder Seals and Piping Upgrade, FY28

# HDC POINTS OF CONTACT

## Questions

### Contact Information:

Jordan Fink, HDC Director,	503-808-4200	Jordan.S.Fink@usace.army.mil
Vinnie DiBlasi, Deputy Director,	503-808-4210	Vincent.J.DiBlasi@usace.army.mil
Bree Wilson, Chief, PID Branch,	503-808-4225	Brianne.R.Wilson@usace.army.mil
Mark Parrish, Chief, HAC,	503-808-4221	Mark.A.Parrish@usace.army.mil
Jim Calnon, Chief, M-S Branch,	503-808-4250	James.D.Calnon@usace.army.mil
John Yen, Chief, Electrical Branch,	503-808-4275	John.Z.Yen@usace.army.mil
Steven Ernst, Chief, ACCS Branch,	503-808-3732	Steven.G.Ernst@usace.army.mil

