NATIONAL HYDROPOWER PROGRAM
Overview

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US Army Corps of Engineers
BUILDING STRONG®

OUR EXPECTATIONS OF THE NATIONAL HYDROPOWER PROGRAM

OUR MISSION: Ensure USACE hydropower assets are available to provide reliable renewable energy and flexible capacity to our nation's electric grid.

OUR VISION: Establish a USACE Hydropower Headquarters Program that enables and encourages data-driven performance analyses and facilitates timely and effective communication to drive a culture of continuous improvement and accountability in achieving the following Hydropower Program goals.

GOAL 1:
Transform operations and maintenance of our hydropower assets to ensure future reliability, flexibility, and competitiveness of our energy resources.

GOAL 2:
Effectively apply funding to asset improvements that are driven by data, informed by external water resource and power marketing requirements, and prioritized based on maximizing return on asset investment.

GOAL 3:
Ensure confidence in the long-term value of our hydropower assets by cultivating partnerships and engaging in outreach.

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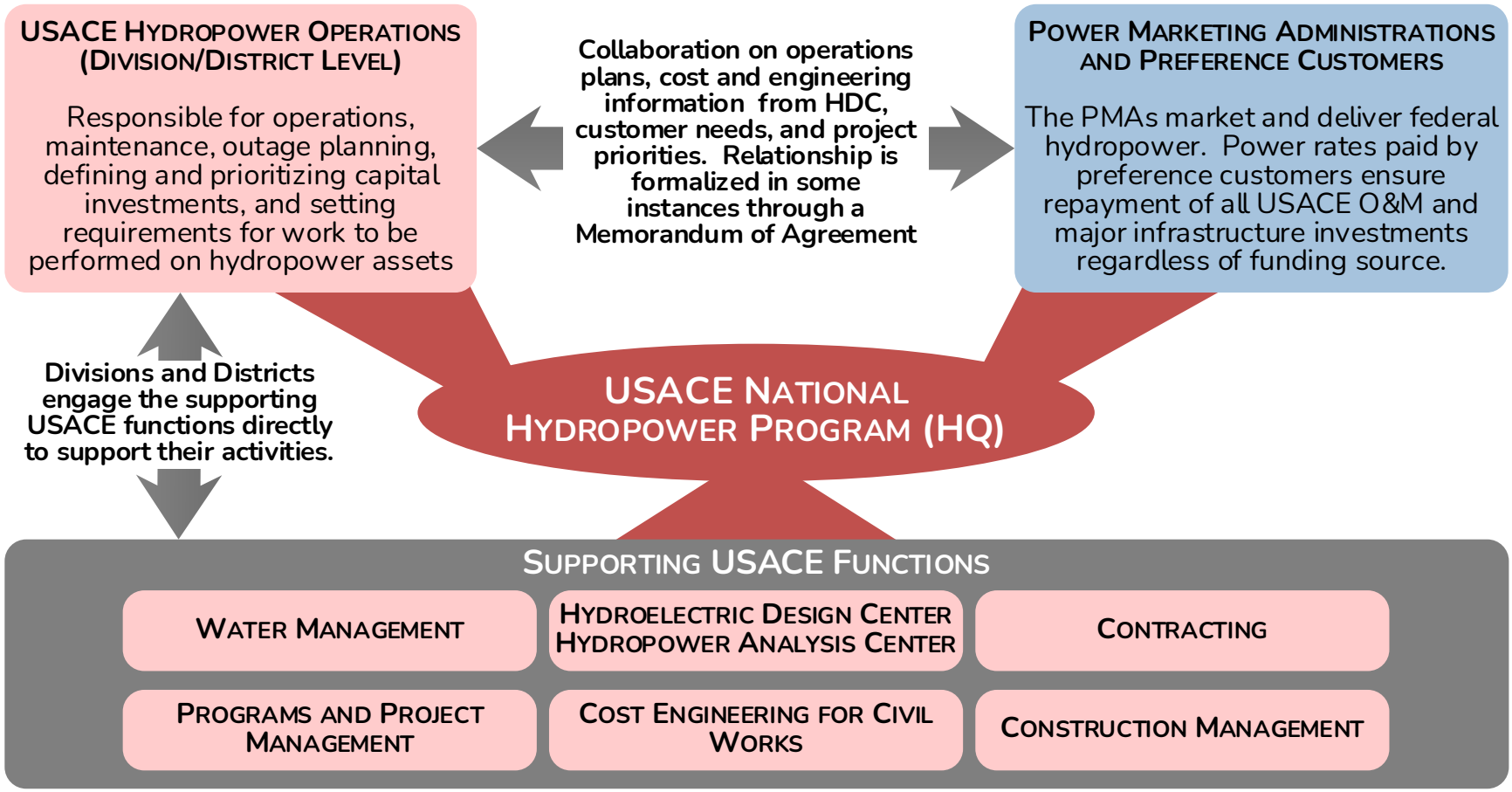
WE CANNOT ACCOMPLISH OUR GOALS ALONE



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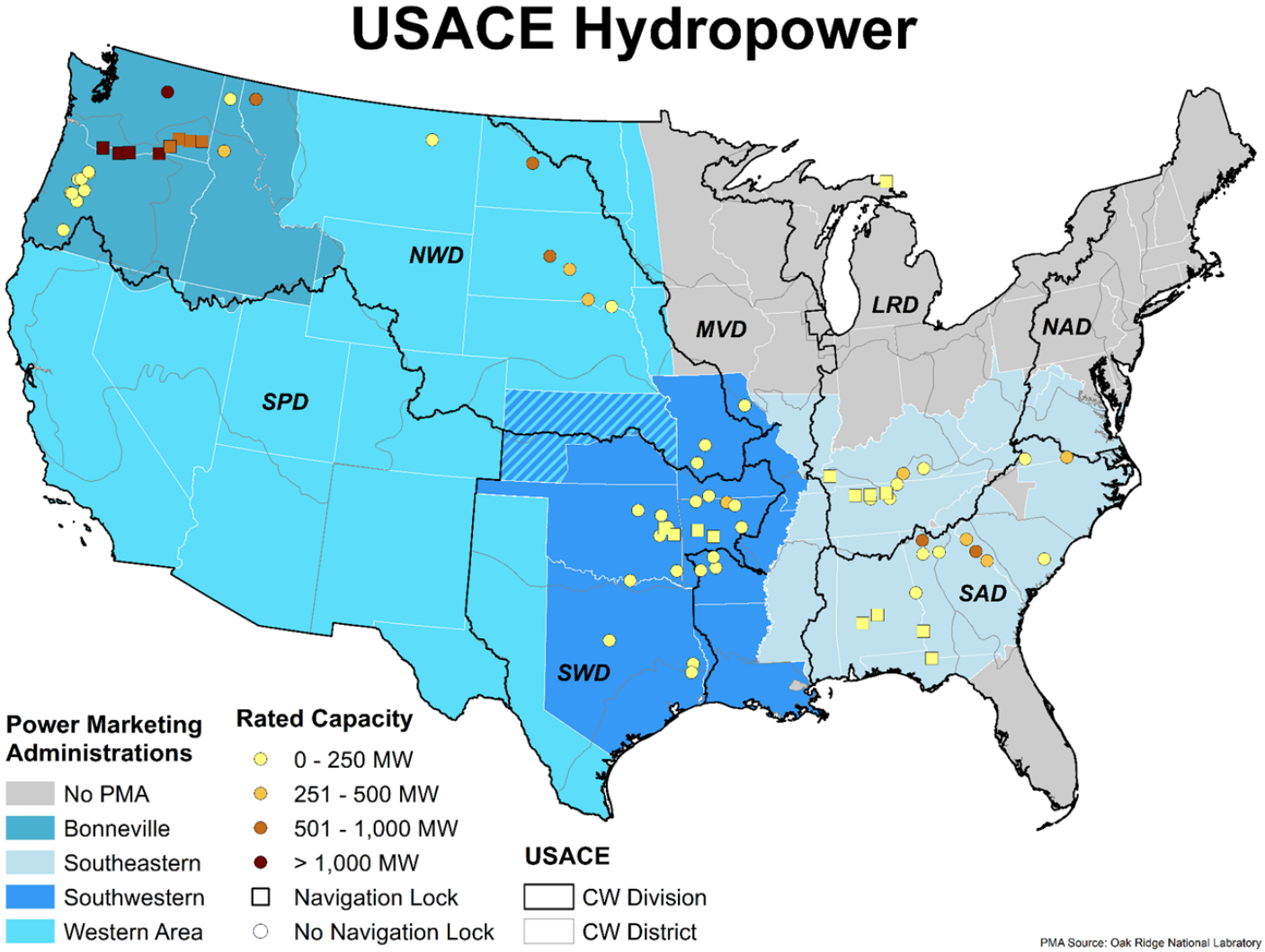
TOGETHER WITH CUSTOMERS AND PMAs WE ARE "FEDERAL HYDROPOWER"



For decades we have maintained agreements with regional power administrations and preference customers across the United States to fund modernizing our infrastructure.

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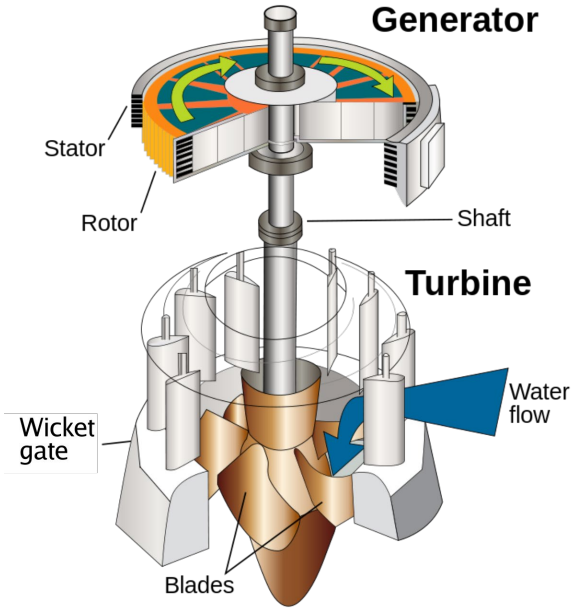
OUR FUNDAMENTAL RESPONSIBILITY IS OPERATIONS AND MAINTENANCE

1. Keeping units available for our customer's use.
2. Managing O&M costs so we remain competitive.



We are not responsible for how our customers' use our units or even if they use them.

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OUR O&M RESPONSIBILITIES ARE DRIVEN BY POLICY

HYDROELECTRIC POWER OPERATIONS AND MAINTENANCE POLICIES (ER 1130-2-510)

- Hydropower Data Collection and Reporting
- Hydropower Operations
- Hydropower Equipment Maintenance and Investment
- Power Review of Operations and Maintenance
- Hydropower Apprenticeship Training Program

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OUR O&M PERFORMANCE IS TRACKED THROUGH METRICS

Metric	Definition
Unit availability:	Percent of time a unit is available to be dispatched. *(number of hours available/unit hours)*
Forced unit outage:	Percent of time a unit is not available to be dispatched due to unplanned reasons. *(hours of forced outage/unit hours)*
Forced unit outage frequency:	The number of outages per unit in a time period. *(number of forced outages by unit/specified timeframe)*
Quality cost:	What we spend per unit on O&M to get an hour of availability. *(O&M dollars/number of hours available)*
Production cost:	What we spend to produce a Megawatt. *(O&M dollars by unit/MWh)*

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OUR O&M PRACTICES ARE SUPPORTED BY COMMUNITIES OF PRACTICE

Craft Training Program

Provide recommendations to develop a standard based Hydropower Craft Training peer review program.

Power Review of Operations & Maintenance

Review each hydroelectric power project and its associated facilities against policy and best practices.

NERC/ACE-CEMP

Collaborate across registered districts on NERC compliance requirements and practices.

Operations

Assist in modernizing hydropower operations policies, procedures, and practices associated with power plant control.

HydroAMP

Advance consistency and accuracy in the condition assessments of hydropower equipment across the Corps.

Hydropower Acquisition Strategy Board

Assess and improve acquisition and delivery processes for major hydropower equipment.

Maintenance Practices

Ensure USACE hydropower assets and facilities are consistently and cost effectively maintained to meet mission purposes.

Digital Transformation

Define needs and recommend courses of action to enable more timely, accessible, and actionable information to the staff at all levels in the Program.

WE ARE EVOLVING OUR OPERATIONS AND MAINTENANCE PRACTICES

Craft Training Program	**Power Review of Operations & Maintenance**	**NERC/ACE-CEMP**	**Operations**
		Remote, Centralized Operations	
HydroAMP	**Hydropower Acquisition Strategy Board**	**Maintenance Practices**	**Digital Transformation**
	Performance metrics and supply chain risks	Value-based application of standard maintenance	Digital Needs Assessment & Road Map

QUESTIONS?

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