

How Hydro Projects are Regulated: United States

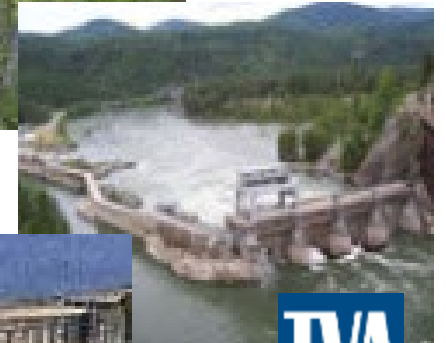
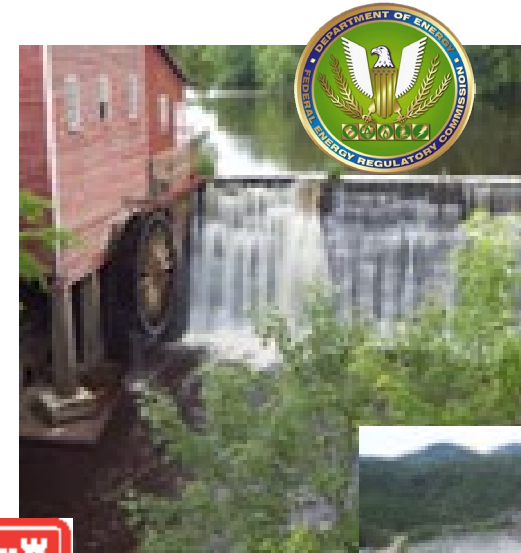
Emily Carter

Federal Energy Regulatory Commission

July 11, 2023

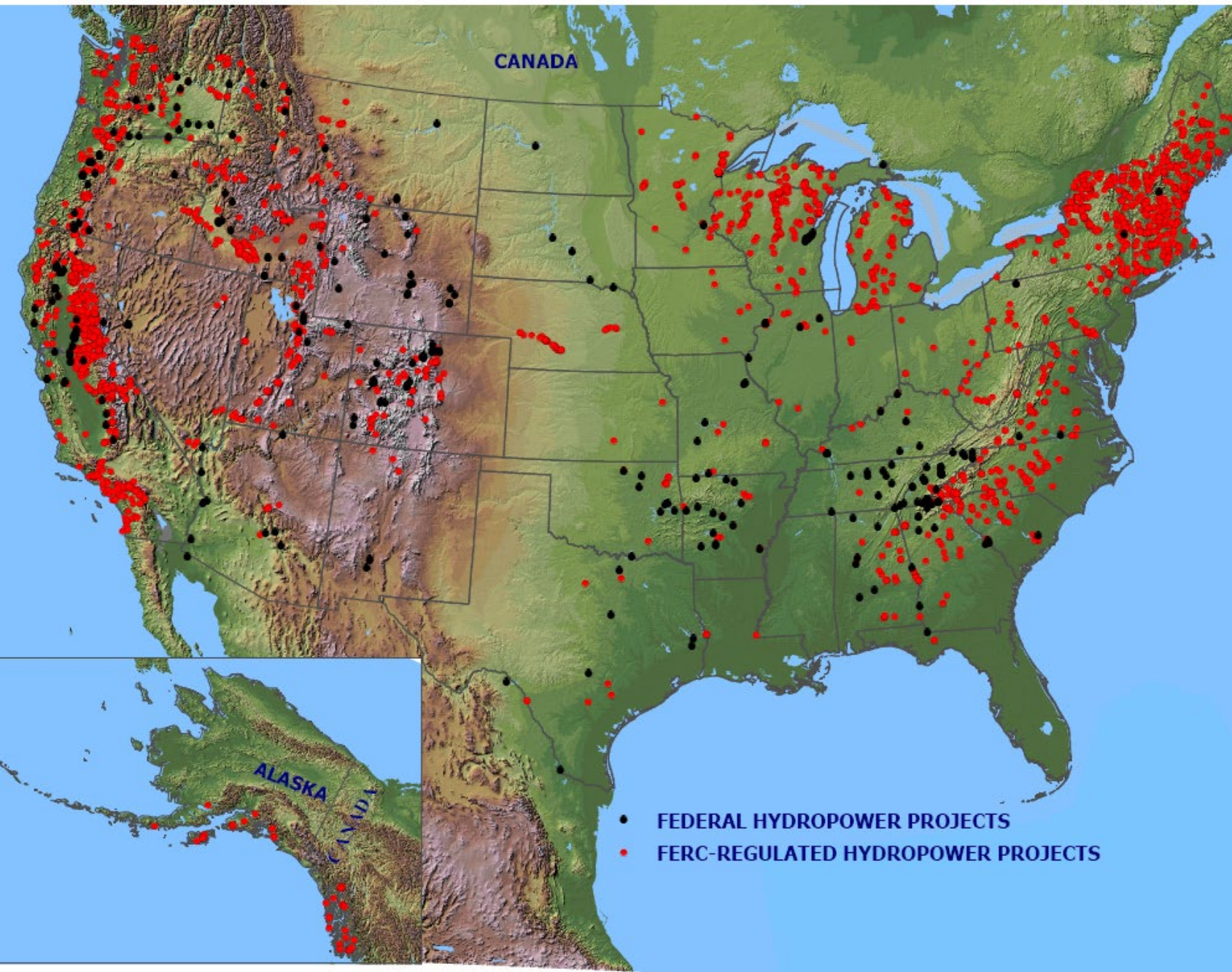
AGENDA

- Overview of Federal and Non-Federal Hydropower
- Pertinent Laws and Regulations
- Non-Federal Hydropower Projects – Federal Energy Regulatory Commission (FERC)
- Federal Hydropower Projects – Army Corps of Engineers (Corps), Bureau of Reclamation (Reclamation), and Tennessee Valley Authority (TVA)





Hydropower in the U.S.



U.S. Hydropower: Federal and Non-Federal

- U.S. Hydropower Generation:
~101,000 MW (8% of U.S.
Generating Capacity)
- FERC-Regulated Capacity:
~57,430 MW



Laws and Regulations

National Environmental Policy Act (NEPA)

Primary NEPA Steps

- Scoping
- Preparation of Environmental Documents [Environmental Assessment (EA) or Environmental Impact Statement (EIS)]
- Public comments on EA/EIS
- Responding to comments



NEPA Document Components

- Purpose and Need
- Alternatives Considered
- Affected Environment
- Environmental Effects
 - Applicant's Proposal
 - Stakeholders' Recommendations
 - Staff's analysis



Typical Environmental Issues Analyzed in NEPA Documents



Water quality



Aesthetics



Fisheries



Wildlife



Tribal

Cultural



Recreation



Terrestrial





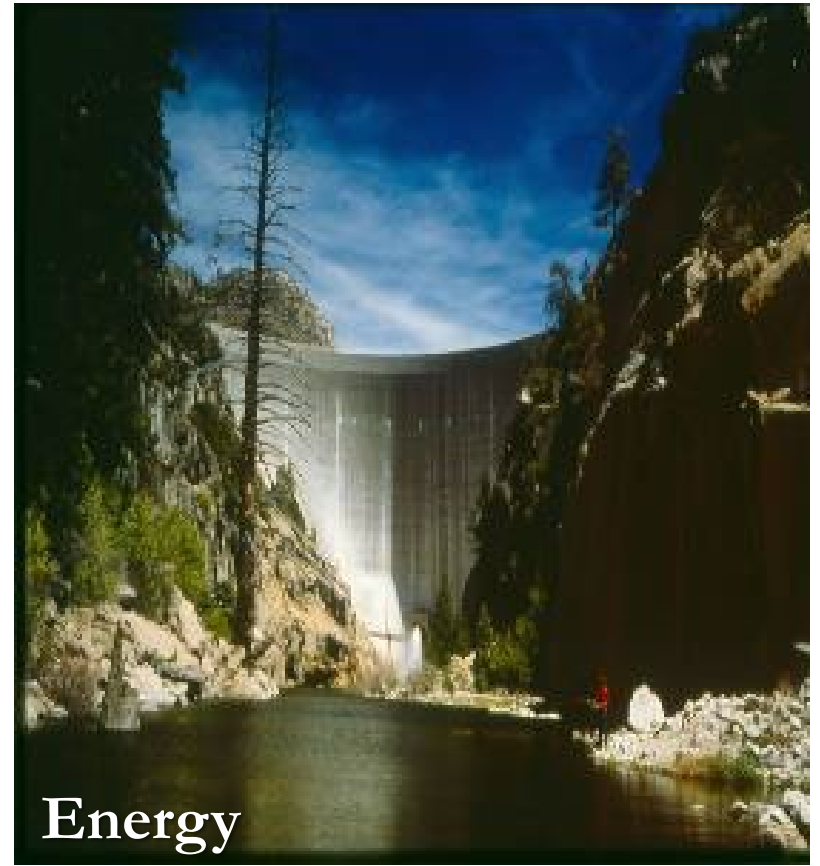
Navigation



Flood
Control



Water
Supply



Energy



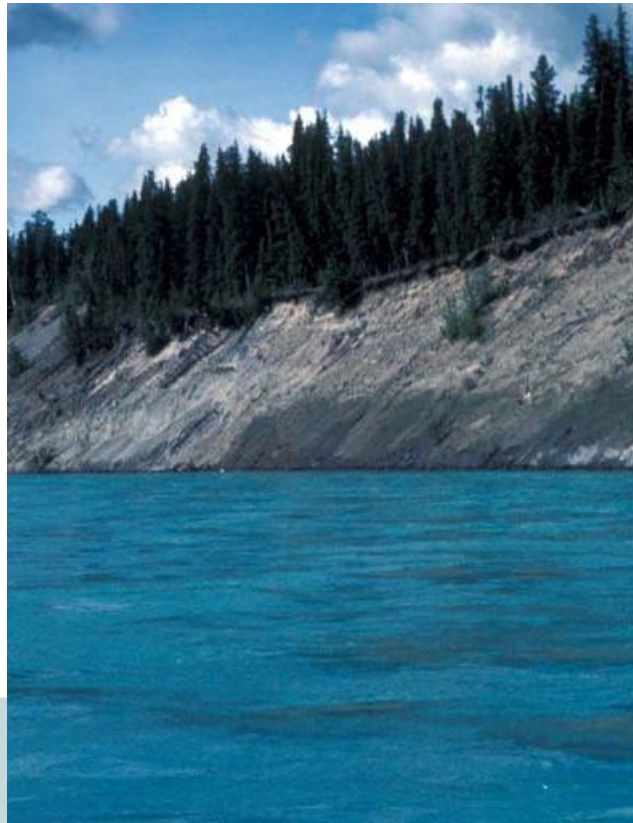
Irrigation

Developmental Concerns at Hydropower Projects



Federal Power Act (FPA) Jurisdiction

- Commission authorization is required for *non-federal* hydropower projects:
 - located on navigable waters;
 - located on federal lands;
 - using surplus water from a federal dam; OR
 - located on non-navigable waters over which Congress has Commerce Clause jurisdiction, were constructed or modified after 1935, and affect interstate or foreign commerce.



Licensing Standard and Other Licensing Considerations under the FPA

- Equal Consideration – section 4(e)
- Comprehensive Development – section 10(a)
- State and federal fish and wildlife agency recommendations [section 10(j)]
- Consistency with comprehensive plans [section 10(a)(2)]
- Mandatory Conditions
 - Fishway Prescriptions – section 18
 - Reservations – section 4(e)



Other Federal Statutes

- Clean Water Act
- Endangered Species Act
- National Historic Preservation Act
- Fish and Wildlife Coordination Act
- Magnuson-Stevens Fishery Conservation and Management Act
- Coastal Zone Management Act
- Wild and Scenic Rivers Act



Balancing



Environmental Concerns vs. Developmental Concerns





FERC's Hydropower Program



Federal Energy Regulatory Commission



Chairman (acting)
Willie L. Phillips



Commissioner
James Danly



Commissioner
Allison Clements



Commissioner
Mark Christie



Vacant

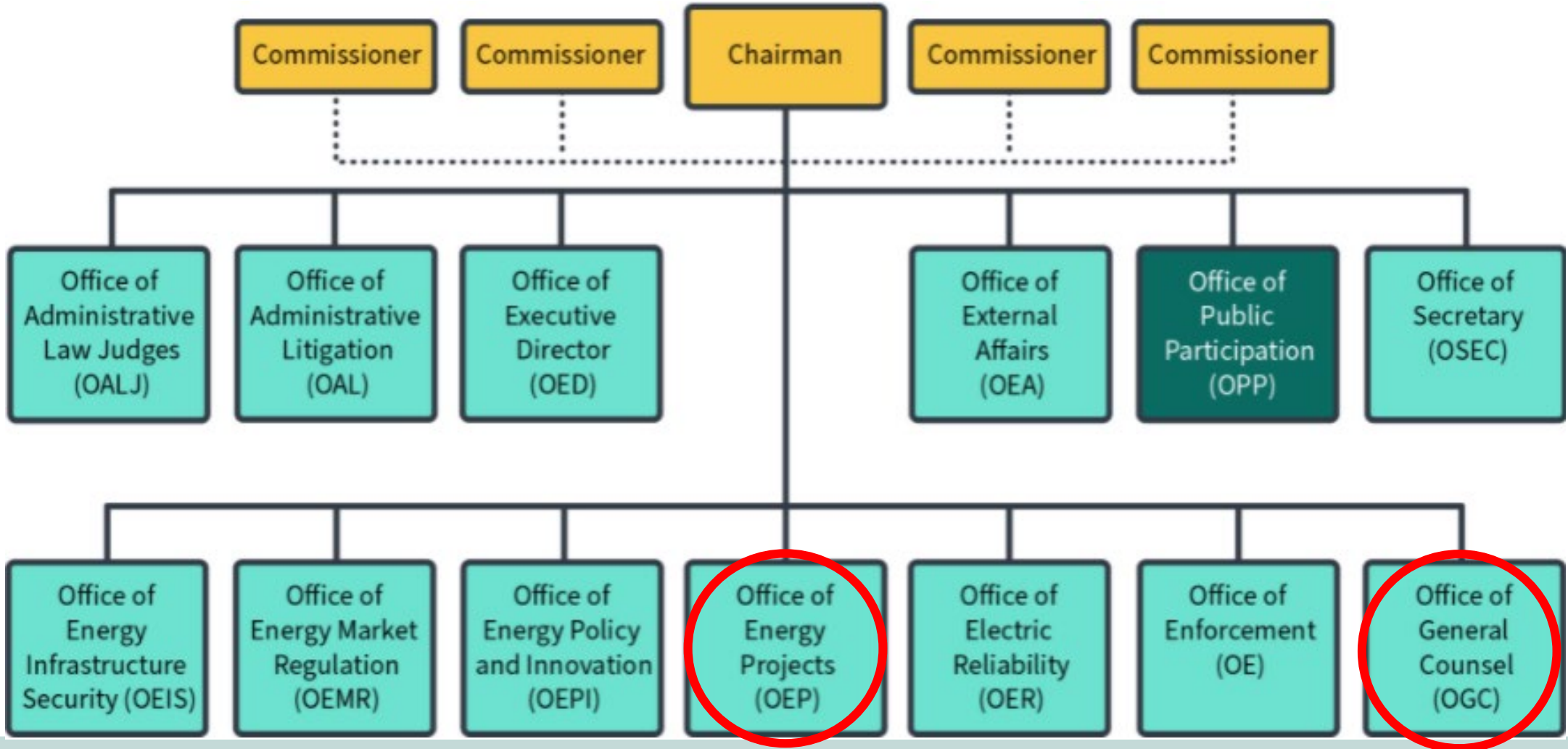
- Independent Regulatory Commission
- Five members appointed by President, confirmed by Senate
 - Supported by 13 offices

What FERC Regulates

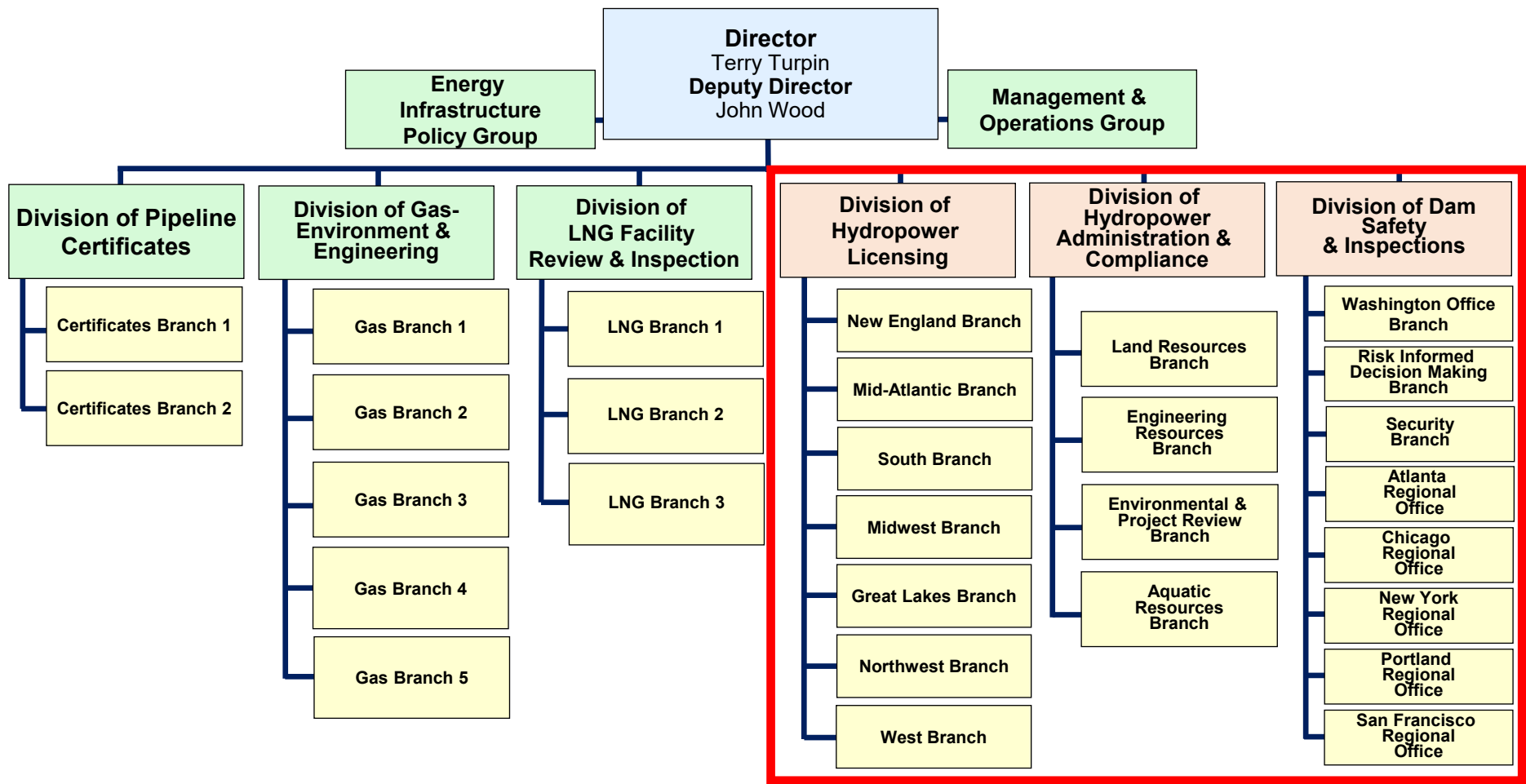
- Hydropower
- Natural Gas/LNG
- Oil Pipeline Rates/Tariffs
- Electric Rates
- Electric Transmission



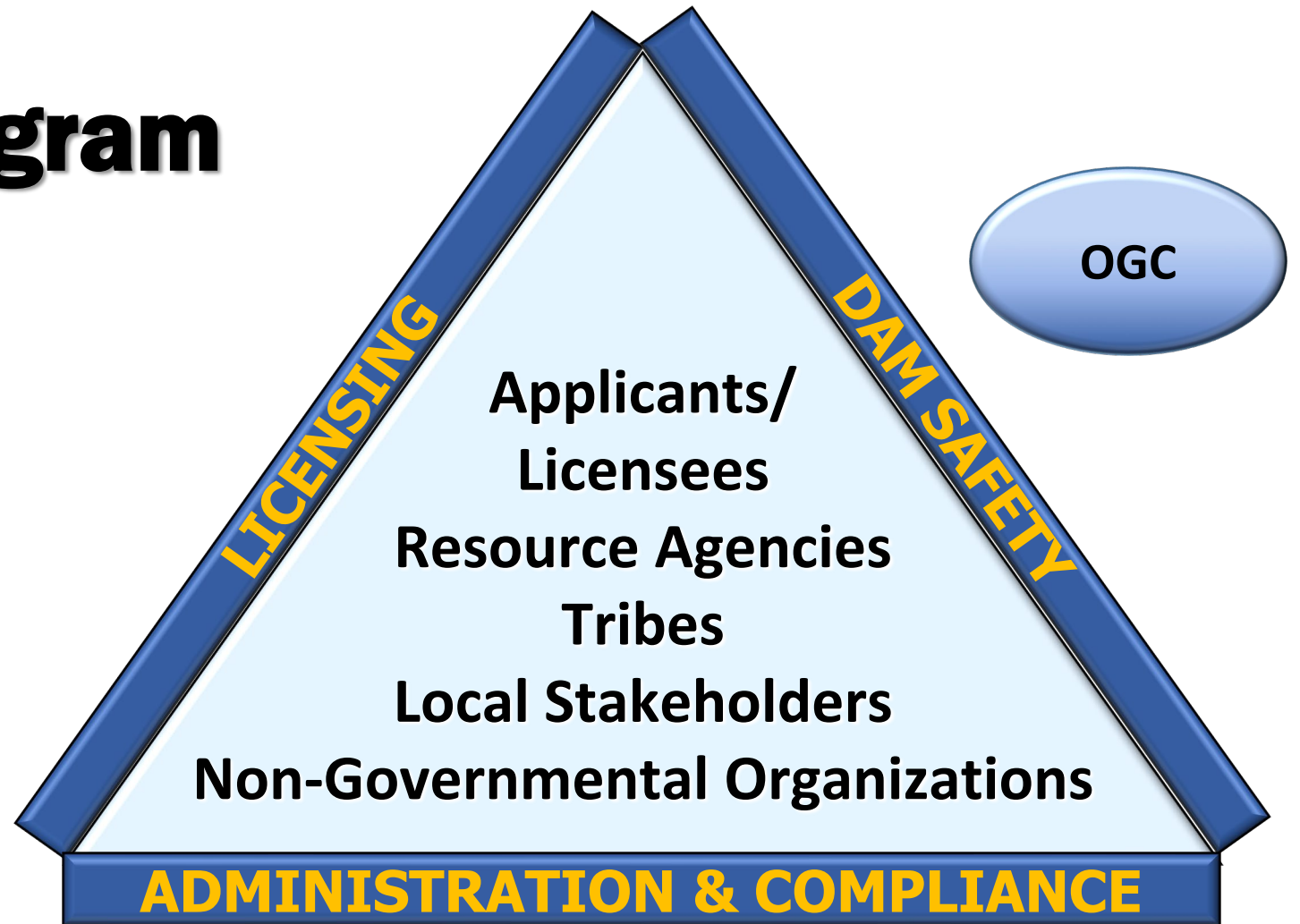
FERC Organization



Office of Energy Projects (OEP)



Hydropower Program



Division of Hydropower Licensing (DHL)

Vince Yearick – Director

Nick Jayjack – Deputy Director

Branch Chiefs:

New England Branch: Emily Carter, (202) 502-6512

Mid-Atlantic Branch: John Smith, (202) 502-8972

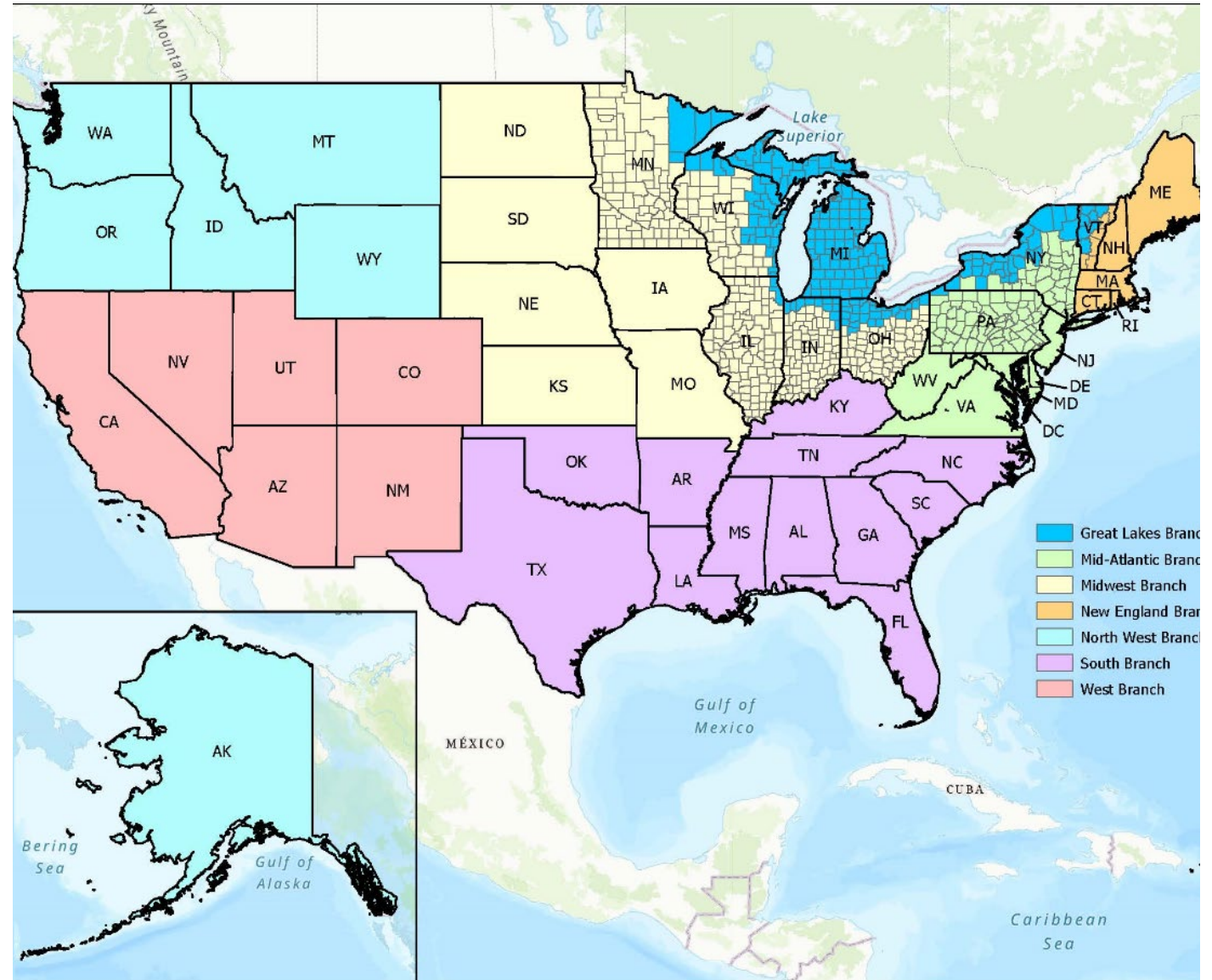
Great Lakes Branch: Nicholas Tackett, (202) 502-6783

Midwest Branch: Janet Hutzell, (202) 502-8675

South Branch: Stephen Bowler, (202) 502-6861

Northwest Branch: David Turner, (202) 502-6091

West Branch: Timothy Konnert, (202) 502-6359



FERC's Hydropower Role

- Evaluate non-federal hydropower projects giving equal consideration to environmental, recreational, cultural, and developmental resources
- Provide assistance to, and foster coordination among, applicants and stakeholders
- Prepare and issue NEPA documents
- Ensure compliance with terms of Commission licenses and exemptions during construction and operation
- Ensure safety of non-federal hydropower dams



Types of Authorizations

Preliminary Permit)

- Maintains priority of application for 4 years with option to extend an additional 4 years
- Requires feasibility studies and pre-filing activities
- Does not authorize construction or operation

License: Original or Relicense, or Pilot

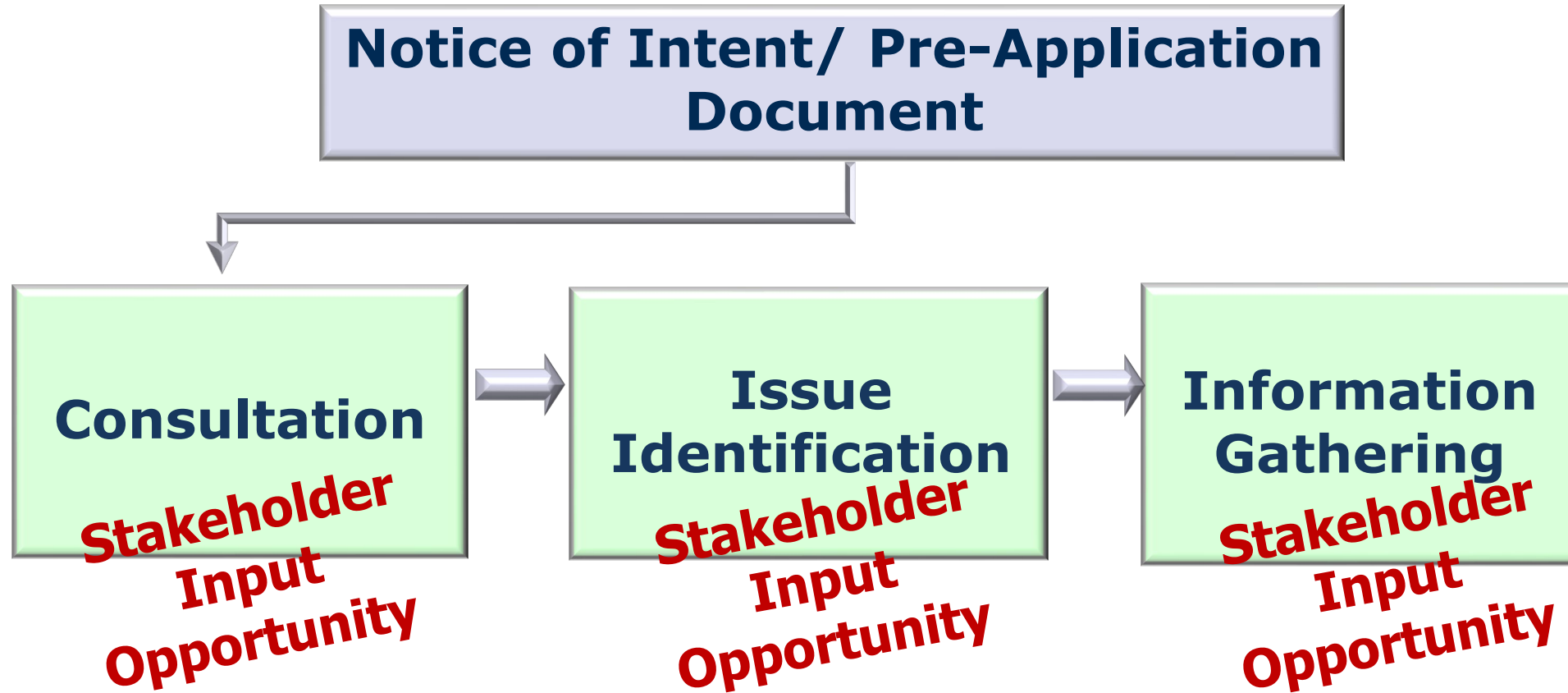
- Authorizes construction and operation
- Issued for 30-50 years, Default is 40 years
- *Exception:* Pilot licenses are issued for 8-10 years

Exemptions: Conduit and 10 MW

- Authorizes construction and operation
- Issued in perpetuity

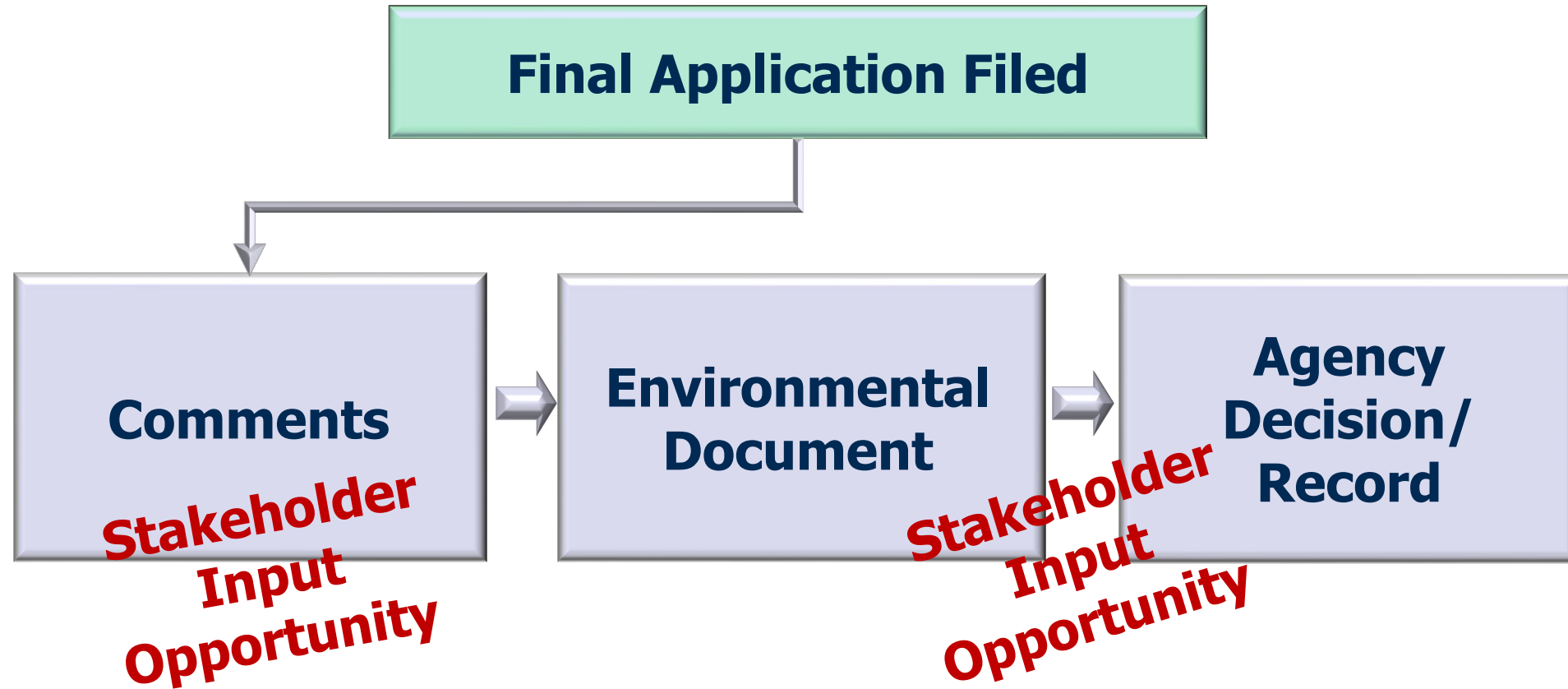
Basic Licensing Steps

Pre-filing



Basic Licensing Steps

Post-filing

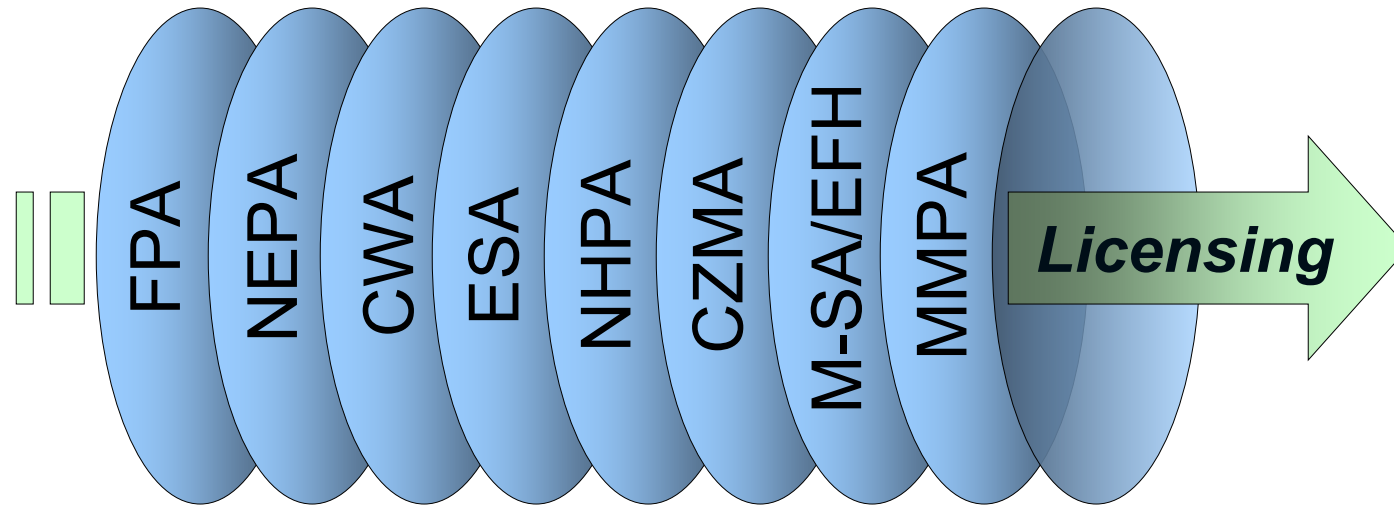


Three Licensing Processes

Integrated Licensing Process (ILP)	Traditional Licensing Process (TLP)	Alternative Licensing Process (ALP)
Default process	Available upon request and FERC approval	Available upon request and FERC approval
Projects with complex issues and study needs; FERC oversight in pre-filing	Projects with less complex issues and study needs; limited FERC oversight in pre-filing	Projects that effectively promote a self-driven collaborative pre-filing process; some FERC involvement
Predictable scheduling in both pre-filing and post-filing stages; FERC-approved study plan	Paper-driven process; few set timeframes	Collaboratively-determined schedule in pre-filing stage
Post-filing elements of each process very similar		



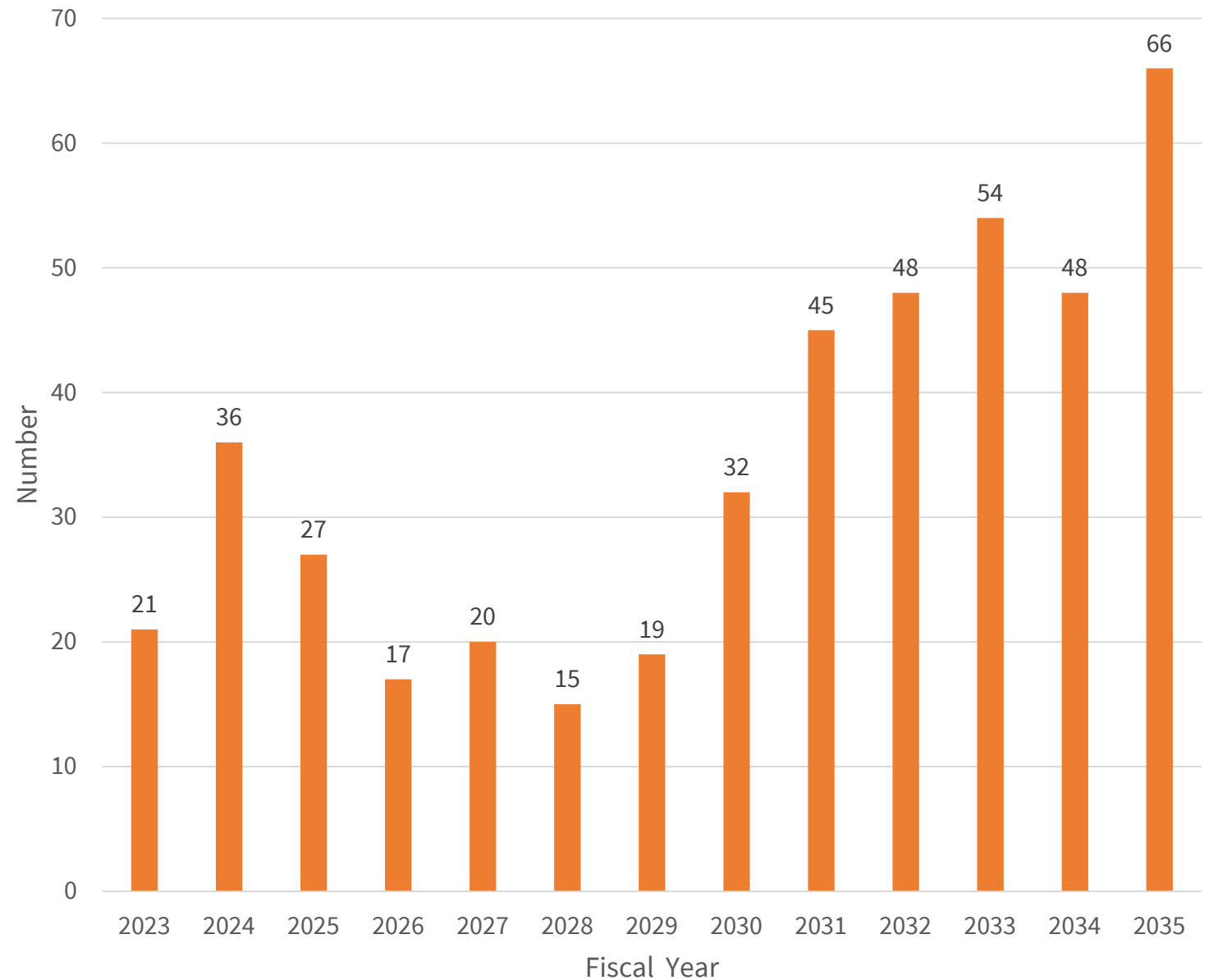
Competing and Overlapping Interests



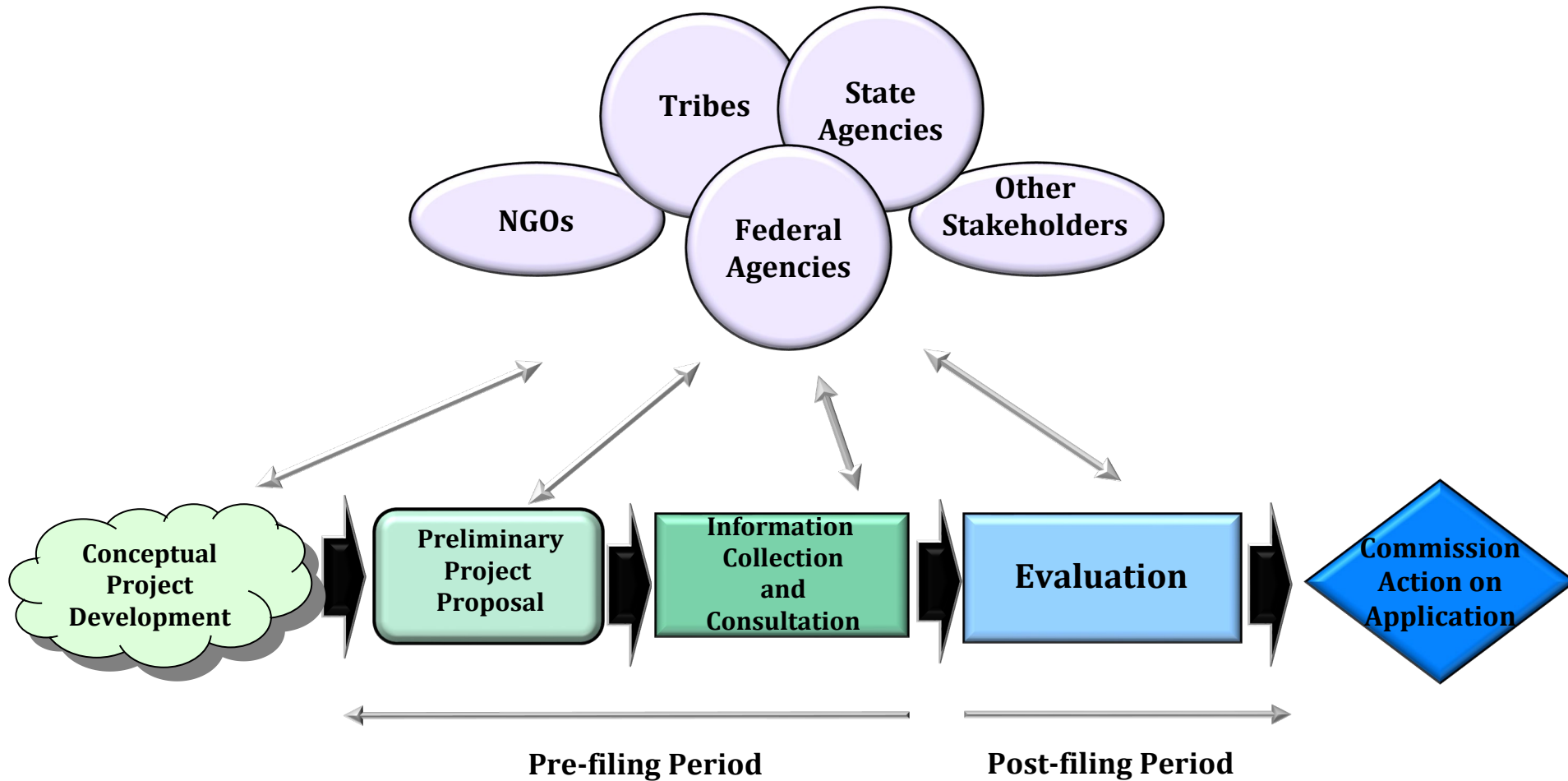
Public resource that serves multiple uses
Many players with varying goals
Shared decision making (mandatory conditions)



DHL Relicensing Workload 2023-2035



Pathway to Licensing





Administration and Compliance (DHAC)

- Ensures compliance with license/exemption order
- Investigates non-compliance allegations
- Tracks license requirements
- Approves plans and reports
- Processes amendments to licenses
- Processes surrenders applications
- Makes jurisdictional determinations

DHAC Branches

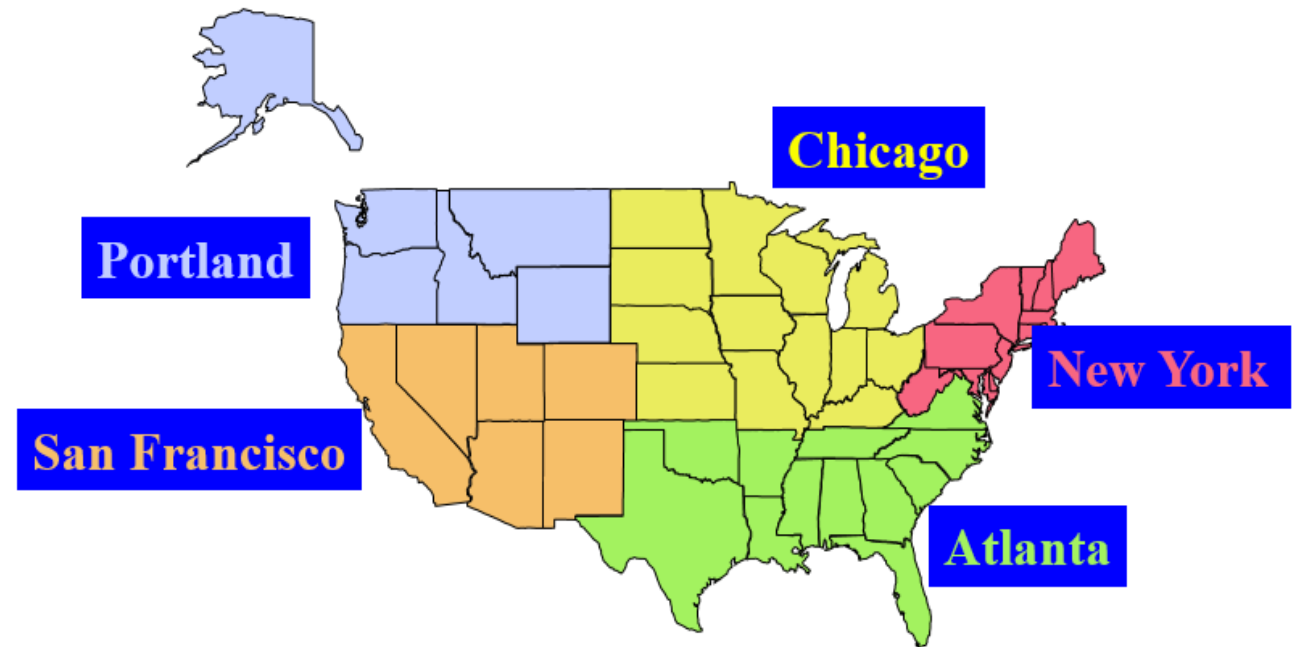
Director: CarLisa Linton
Deputy: Hillary Berlin

Lands Resources	Engineering Resources	Environmental and Project Review	Aquatic Resources
Bob Fletcher	Kelly Houff	Shana Wiseman	Andrea Claros
• Historical/cultural • Non-project use • Recreation • Shoreline mgmt. • Encroachments • Property rights • Article 5 • Wildlife	• Capacity amend. • Ramping rates • Exhibits A, F, G • Conduit exemptions • Erosion • Flooding • Project operations • Annual charges • Mining/federal land	• Jurisdiction • Navigation studies • EA/EIS • Part 12 support • Noxious weeds • Invasive species • Surrenders • Non-operating projects • Historical/cultural	• Aquatic habitat • Dredging/ sedimentation • Fish passage • Water withdrawal • Wetlands • Water quality • Barrier nets • Dissolved oxygen • Water temperature

Dam Safety & Inspections (D2SI)

Mission Summary:

Inspect and analyze FERC dams to keep the public, its property, and the environment safe.



Headquarters: Washington, DC

Dam Safety & Inspections

Responsibilities:

- Implement dam and public safety programs
- Ensure protection of life, property, and the environment
- Develop policies, programs, and guidelines for assessing dam safety
- Assess physical and cyber security measures at hydroelectric facilities



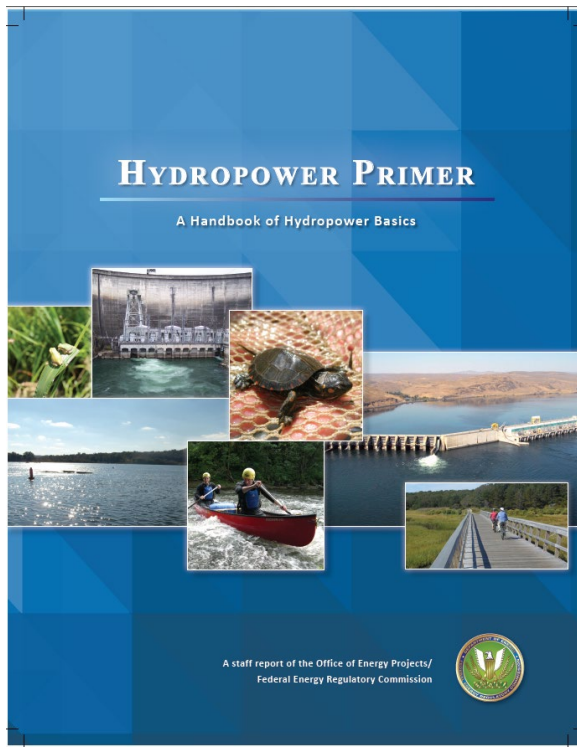
Web Resources

[www.FERC.gov](https://www.ferc.gov)

Hydropower Page

(<https://www.ferc.gov/industries-data/hydropower>)

Overview of licensing, compliance, and dam safety programs.



Office of Public Participation (OPP)

Overview

- How to Participate
- Contact FERC
- Intervene
- File a Comment
- Request a Rehearing
- Frequently Asked Questions (FAQs)

About OPP

Pursuant to [Section 319](#) of the Federal Power Act, as amended on November 15, 2021, in [Public Act 117-58](#) the Infrastructure Investment and Jobs Act the Commission has established the the Office of Public Participation (OPP) to assist the public with Commission proceedings. The Commission has produced a [public report](#) to guide the development of the office based on [stakeholder feedback](#) during listening sessions, a full-day workshop, and a written comment period.

The public can contact OPP now for assistance navigating Commission proceedings of all types. Examples include questions on when and how to intervene, comment, file motions, or seek rehearing. OPP will not assist in the actual drafting of pleadings and other submissions.

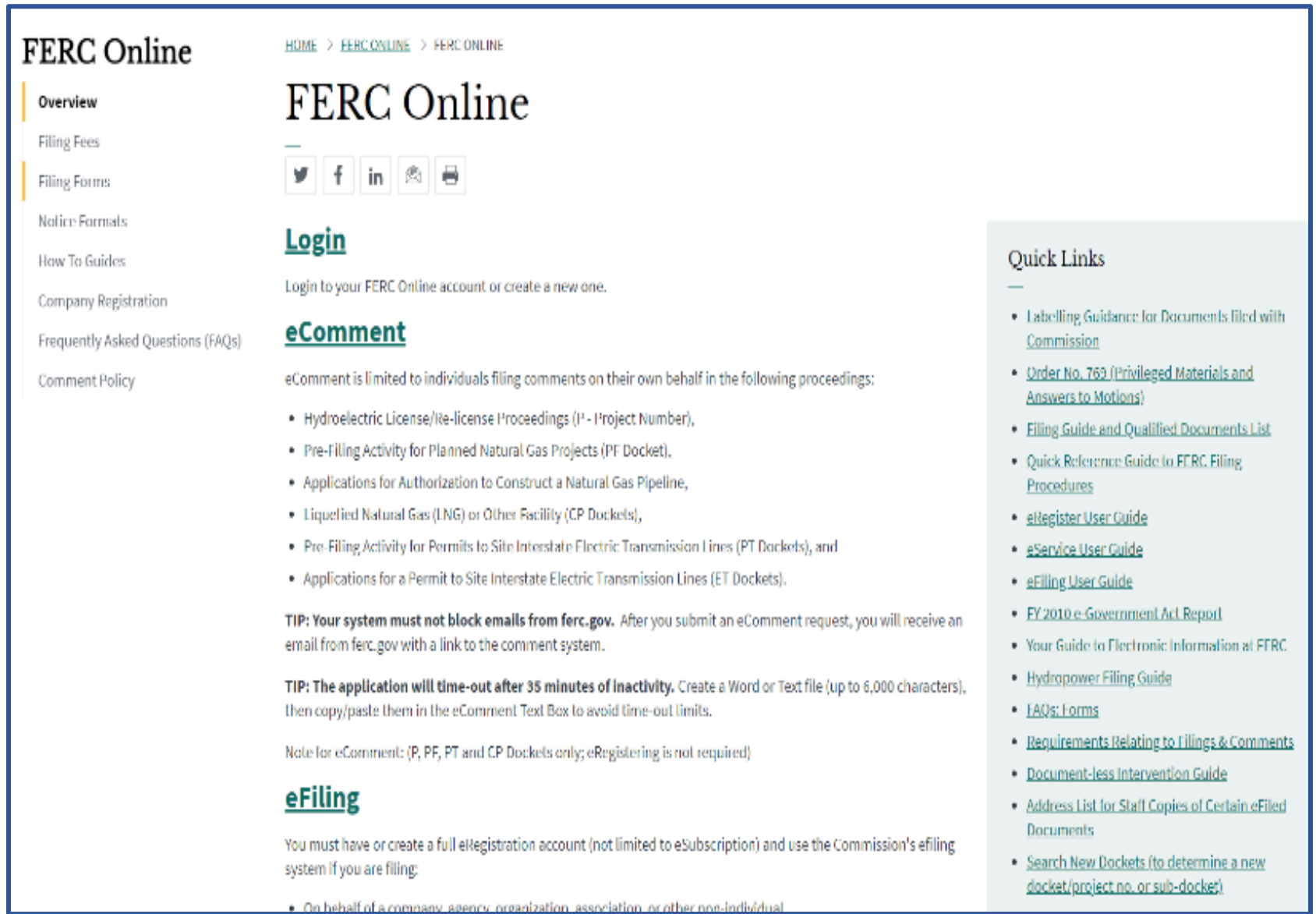
OPP is beginning operations with limited staff, so we appreciate the public's understanding and patience if OPP cannot immediately respond. Ongoing and additional support will be further determined and established by the incoming OPP Director.

Office of Public Participation
(<https://www.ferc.gov/OPP>)



FERC's Electronic Systems

- eLibrary
- eRegister
- eFiling
- eSubscription
- eService
- eComment



The screenshot displays the FERC Online website interface. On the left, a vertical navigation menu lists: Overview, Filing Fees, Filing Forms, Notice Formats, How To Guides, Company Registration, Frequently Asked Questions (FAQs), and Comment Policy. The main content area is titled 'FERC Online' and includes social media icons for Twitter, Facebook, LinkedIn, YouTube, and RSS. Below these are links for 'Login' and 'eComment'. The 'eComment' section explains that it is limited to individuals filing comments on their own behalf in specific proceedings, including Hydroelectric License/Re-license Proceedings, Pre-Filing Activity for Planned Natural Gas Projects, Applications for Authorization to Construct a Natural Gas Pipeline, Liquefied Natural Gas (LNG) or Other Facility, Pre-Filing Activity for Permits to Site Interstate Electric Transmission Lines, and Applications for a Permit to Site Interstate Electric Transmission Lines. It also provides a tip about email delivery and a 35-minute inactivity timeout. A note specifies that eRegistering is not required for certain docket types. The 'eFiling' section states that users must have or create a full eRegistration account and use the Commission's eFiling system. A 'Quick Links' sidebar on the right contains numerous links to various guides, reports, and document lists.

FERC Online

HOME > [FERC ONLINE](#) > FERC ONLINE

FERC Online

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Login

Login to your FERC Online account or create a new one.

eComment

eComment is limited to individuals filing comments on their own behalf in the following proceedings:

- Hydroelectric License/Re-license Proceedings (P - Project Number),
- Pre-Filing Activity for Planned Natural Gas Projects (PF Docket),
- Applications for Authorization to Construct a Natural Gas Pipeline,
- Liquefied Natural Gas (LNG) or Other Facility (CP Dockets),
- Pre-Filing Activity for Permits to Site Interstate Electric Transmission Lines (PT Dockets), and
- Applications for a Permit to Site Interstate Electric Transmission Lines (ET Dockets).

TIP: Your system must not block emails from [ferc.gov](#). After you submit an eComment request, you will receive an email from [ferc.gov](#) with a link to the comment system.

TIP: The application will time-out after 35 minutes of inactivity. Create a Word or Text file (up to 6,000 characters), then copy/paste them in the eComment Text Box to avoid time-out limits.

Note for eComment: (P, PF, PT and CP Dockets only; eRegistering is not required)

eFiling

You must have or create a full eRegistration account (not limited to eSubscription) and use the Commission's eFiling system if you are filing:

- On behalf of a company, agency, organization, association, or other non-individual

Quick Links

- [Labelling Guidance for Documents filed with Commission](#)
- [Order No. 760 \(Privileged Materials and Answers to Motions\)](#)
- [Filing Guide and Qualified Documents List](#)
- [Quick Reference Guide to FERC Filing Procedures](#)
- [eRegister User Guide](#)
- [eService User Guide](#)
- [eFiling User Guide](#)
- [FY 2010 e-Government Act Report](#)
- [Your Guide to Electronic Information at FERC](#)
- [Hydropower Filing Guide](#)
- [FAQs: Forms](#)
- [Requirements Relating to Filings & Comments](#)
- [Document-less Intervention Guide](#)
- [Address List for Staff Copies of Certain eFiled Documents](#)
- [Search New Dockets \(to determine a new docket/project no. or sub-docket\)](#)

All services are free and available via any internet connection
(no installation required)





Federal Hydropower





J Strom Thurmond Generating Units



Hartwell Powerplant



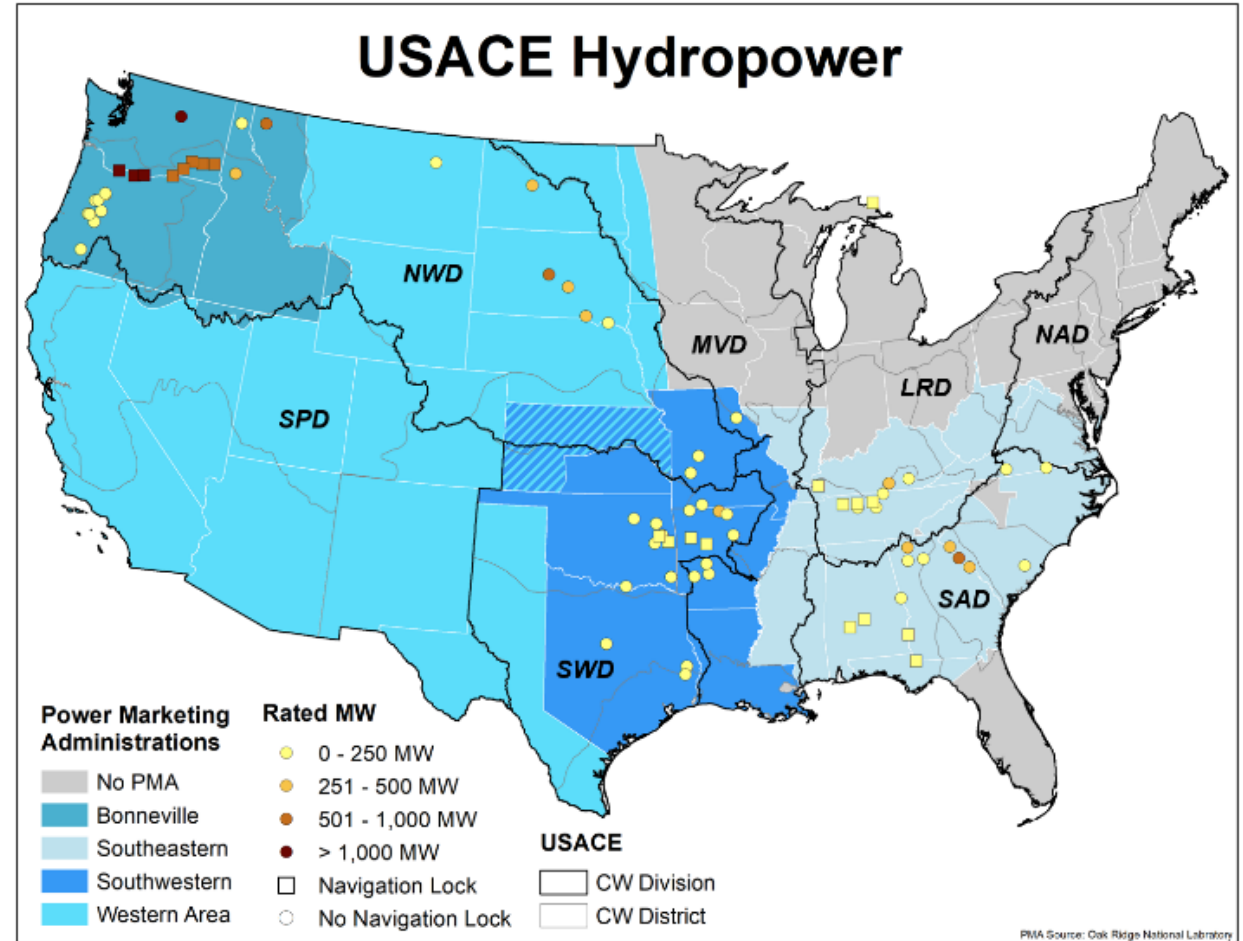
Bonneville Project

U.S. Army Corps of Engineers Department of Defense

- Own 75 power plants nation-wide
- Approximately 21 GW of capacity
- Produces approximately 74 TWh annually
- Avoids about 50 million tons of CO₂ emissions
- Large, multipurpose storage reservoirs across the U.S.



U.S. Army Corps of Engineers Hydropower



Bureau of Reclamation, Department of the Interior

- Own 78 plants
- Operate 53 of the 78 plants
- Over 14.7 GW of capacity
- Second largest producer of hydroelectric power in the United States
- Largest wholesaler of water in the United States

Grand Coulee Dam

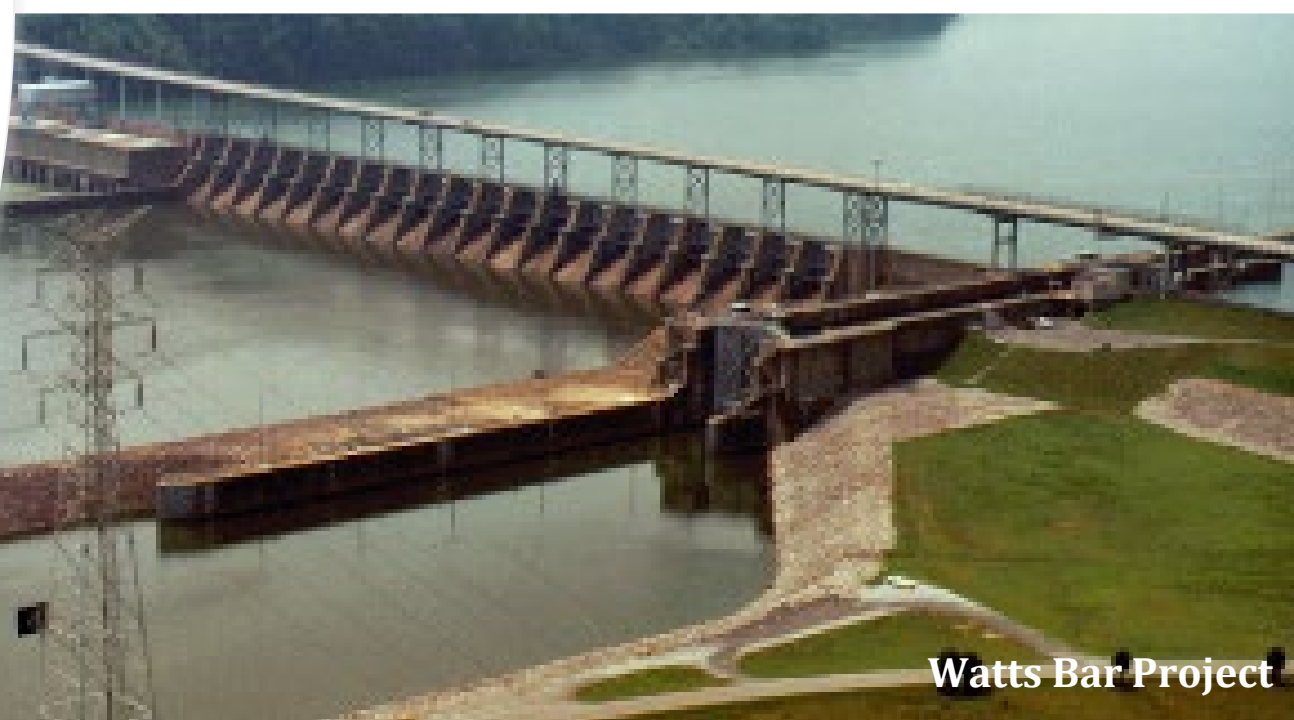


Tennessee Valley Authority

- Own 30 hydropower plants
- About 5.5 GW of hydro capacity
- Multi-purpose storage and run-of-river projects in the Tennessee River Basin

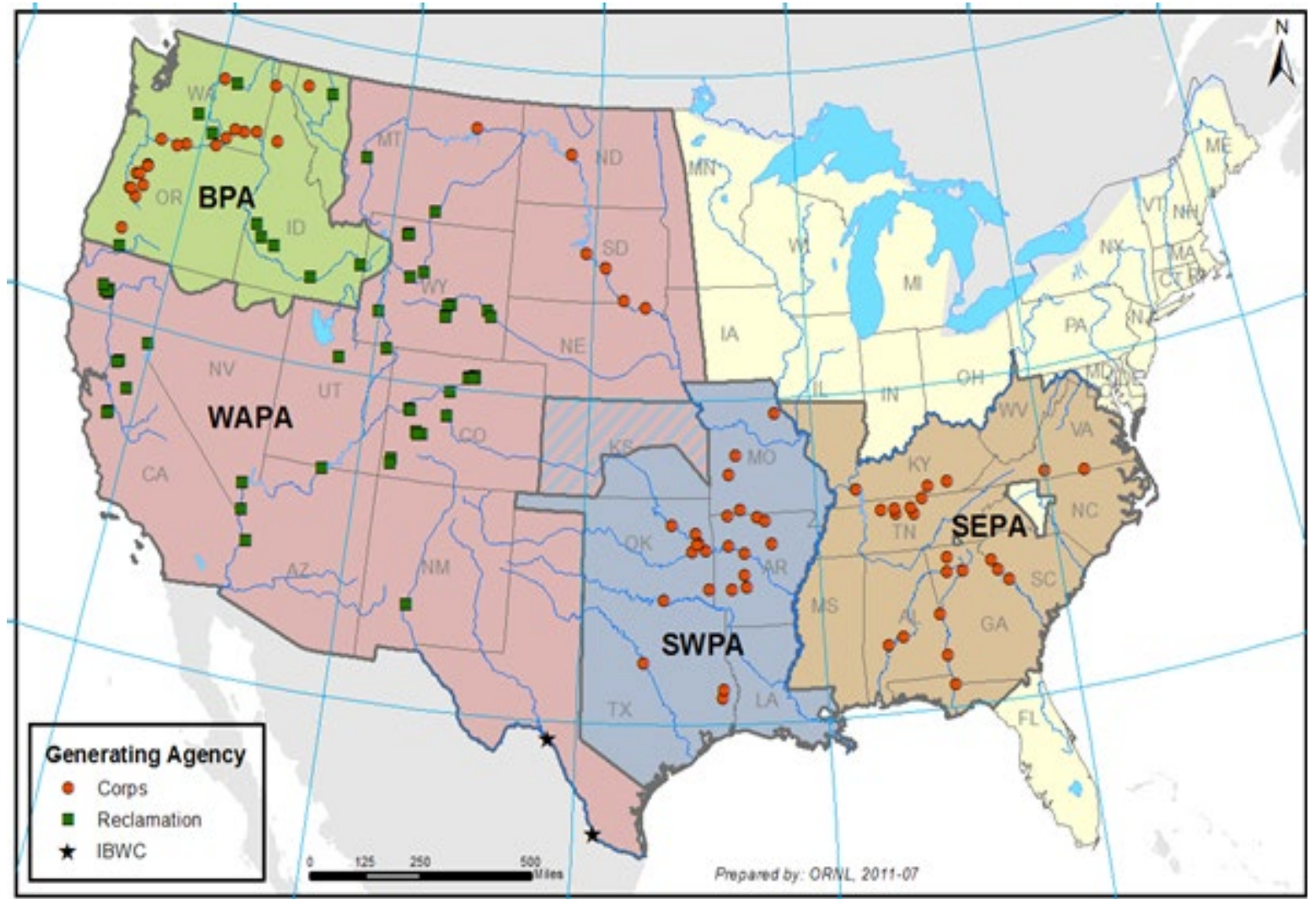


Raccoon Mountain
Pumped Storage Project



Watts Bar Project

Federal Power Marketing Administrations



Questions?

Emily Carter, Chief
New England Branch

Division of Hydropower Licensing – Office of Energy Projects

Federal Energy Regulatory Commission

(202) 502-6512 or Emily.Carter@FERC.gov

www.FERC.gov