



Federal Energy Regulatory Commission

Small Hydropower Development in the United States

February 16, 2010

FERC's Strategic Plan

MISSION: RELIABLE, EFFICIENT, AND SUSTAINABLE ENERGY FOR CONSUMERS

Goal: Promote the development of safe, reliable and efficient energy infrastructure that serves the public interest

Existing Conventional Hydropower

United States:

- 98,000 MW of hydropower capacity
- 9% of U.S. electric generation capacity

FERC (non-federal):

- 54,700 MW of hydropower capacity
- 5% of U.S. electric generation capacity
- 71% <5 MW, 29% >5 MW

Potential Conventional Hydropower Capacity

Available power potential: 350,000 MW

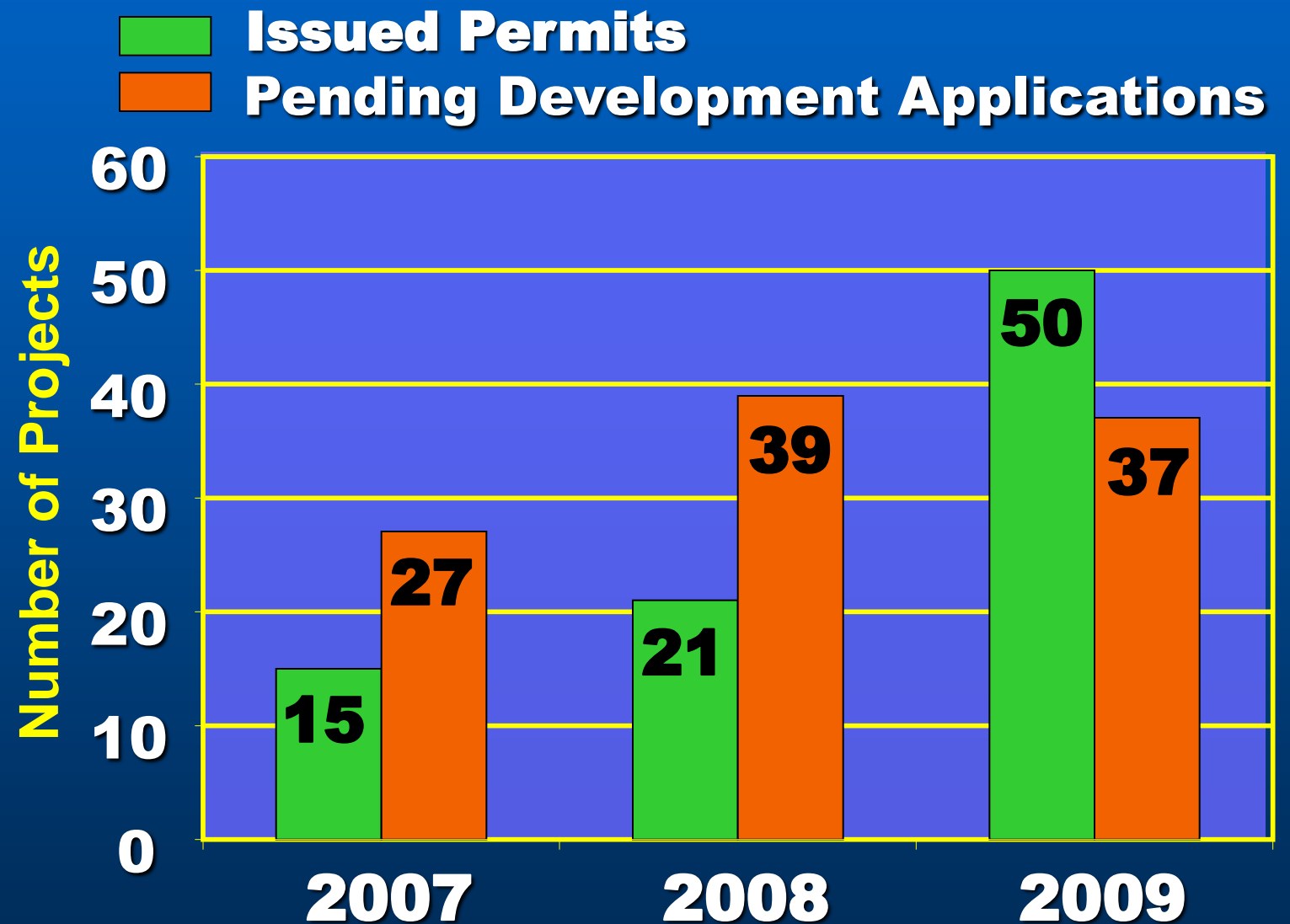
Conservative Estimate of Developable Power: 60,000 MW

- 38,000 MW: (2 - 60 MW)
- 13,000 MW: (<2 MW & >8 ft. of head)
- 3,000 MW: (<2 MW & <8 ft. of head)
- 6,000 MW: (<200 kW)

(Source: DOE/ID-11263, Jan. 2006)

Increased Interest in Small Hydro

- State and industry initiatives
- Inquiries at FERC
- More preliminary permits and licenses in last 3 years



FERC's Hydropower Jurisdiction

- Located on a navigable waterway
- Occupies lands of the United States
- Uses surplus water from a federal dam
- Located on Commerce clause waterway, post-1935 construction, and affects interstate or foreign commerce

FERC Authorizations

- Preliminary permits
- Conduit exemptions
- 5-MW exemptions
- Licenses

Preliminary Permits

- Maintain priority of application while the permittee studies the site and prepares to apply for a license or exemption
- Issued for up to 3 years
- Does not authorize construction
- Requires periodic reports on the status of studies

Conduit Exemptions

- Issued in perpetuity
- 15 megawatts or less for non-municipal and 40 megawatts or less for municipal projects
- Conduit constructed primarily for non-power purposes
- Power facility located entirely on non-federal lands
- Subject to mandatory fish and wildlife conditions
- Categorically exempt from NEPA

5-MW Exemptions

- Issued in perpetuity
- 5 megawatts or less
- Built at an existing dam or uses a natural water feature
- Subject to mandatory fish and wildlife conditions
- Require NEPA analysis

Licenses

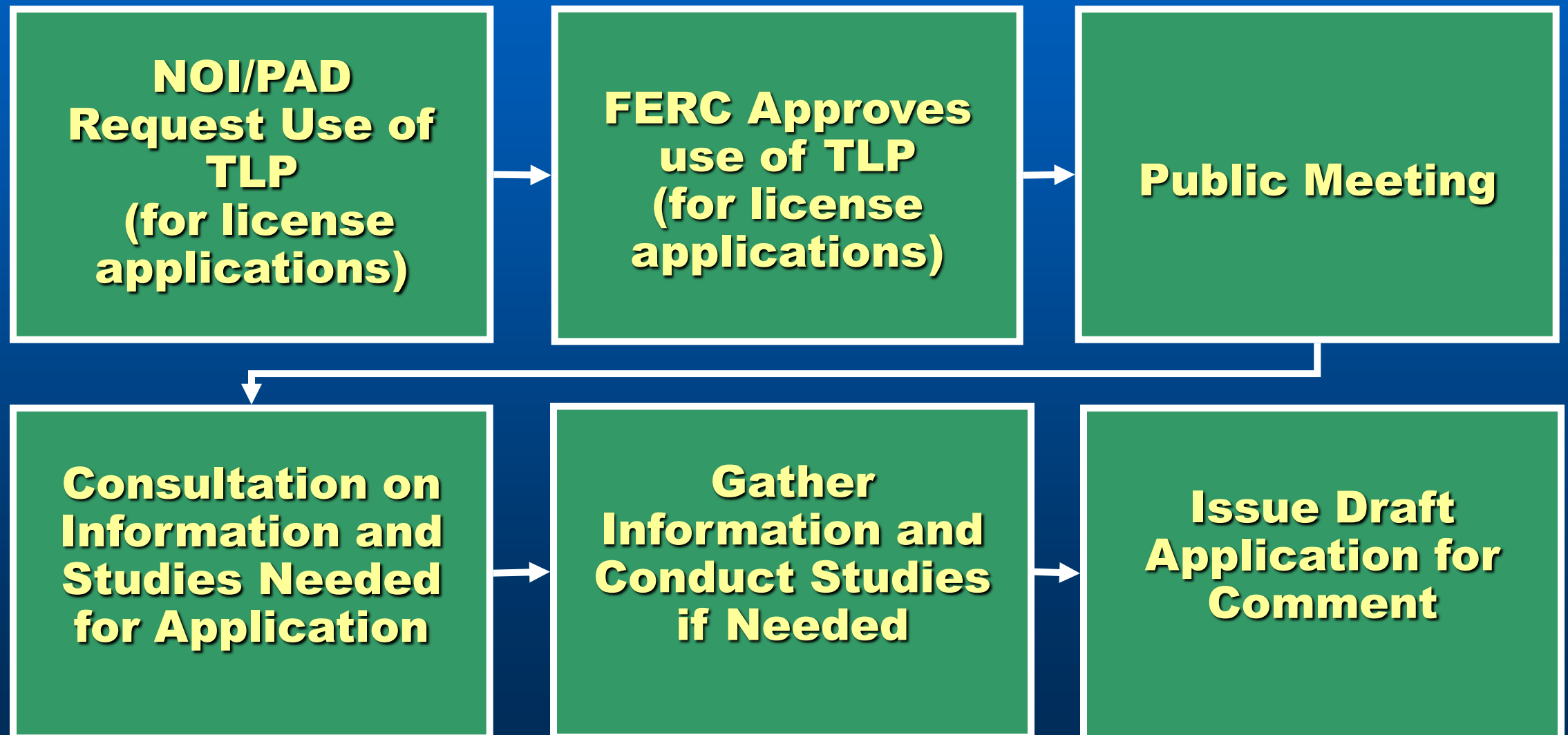
- Typically issued for 30 to 50 years
- Any size project
- Eminent domain authority
- Commission sets conditions; also subject to mandatory conditions
- Require NEPA analysis

Licensing Processes

- Integrated Licensing Process (default)
- Alternative Licensing Process
- Traditional Licensing Process
 - Used often for small hydro projects

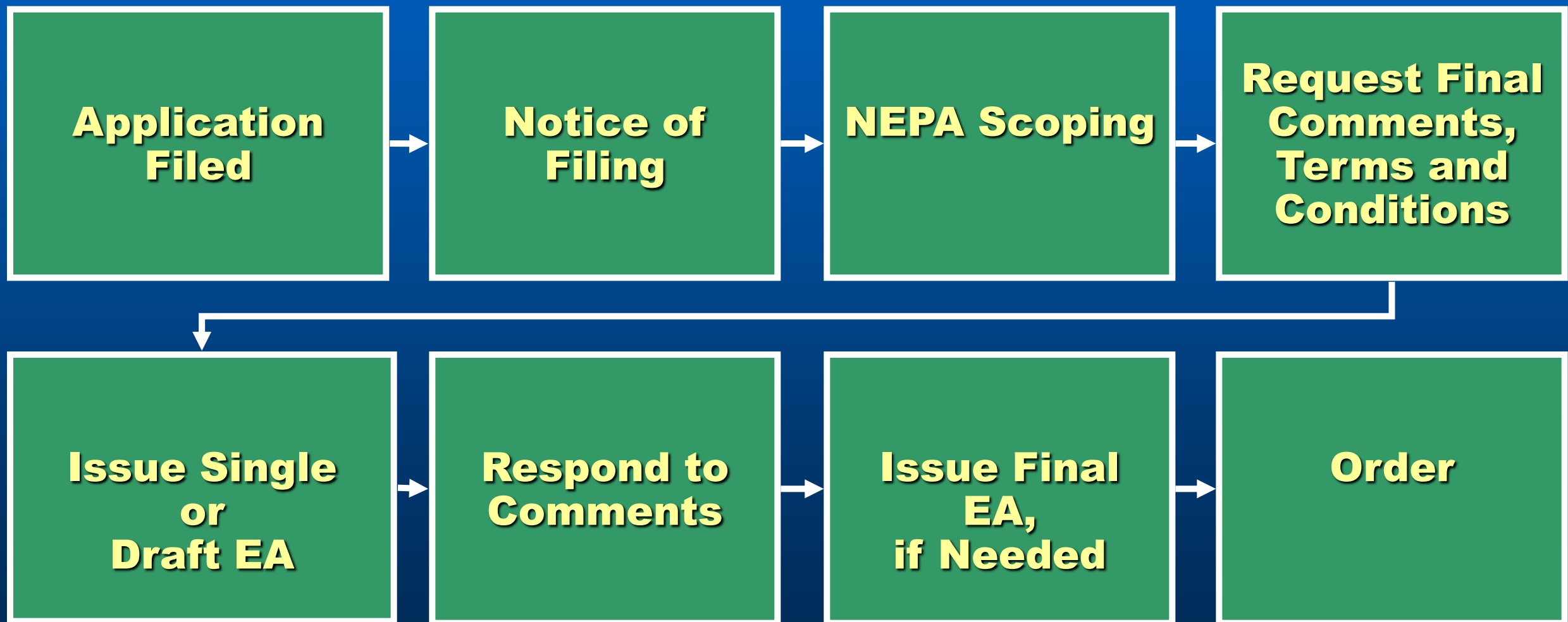
Traditional Licensing Process

Pre-filing



Traditional Licensing Process

Post-filing



Expediting Small Hydro

Factors that May Reduce Time and Costs:

- Project at existing dam
- Little change to water flow and use
- Unlikely to affect threatened and endangered species or need fish passage
- Applicant owns all lands
- Applicant builds stakeholder consensus
- Application is complete

Expediting Small Hydro

- **FERC Actions that May Expedite Processing:**
- With resource agency coordination, waive some pre-filing requirements
- Combine scoping of issues with pre-filing consultation
- Combine public noticing requirements
- Shorten comment periods

Small Hydro Inquiry

- FERC Small Hydro Conference held December 2, 2009
- Docket No. AD09-9-000
- Comments were due February 4, 2010
- About 40 entities filed comments

- For more information contact:
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