



Federal Energy Regulatory Commission

Small Hydropower Development in the United States

December 2, 2009

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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

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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

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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)

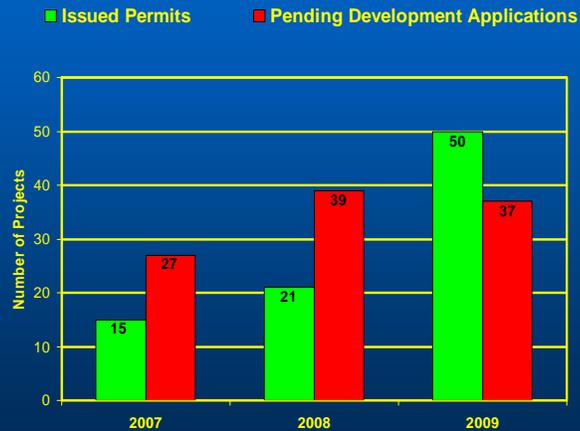
(source: DOE/ID-11263, Jan. 2006)

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Increased Interest in Small Hydro

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



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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

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FERC Authorizations

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

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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

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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

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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

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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

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Licensing Processes

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

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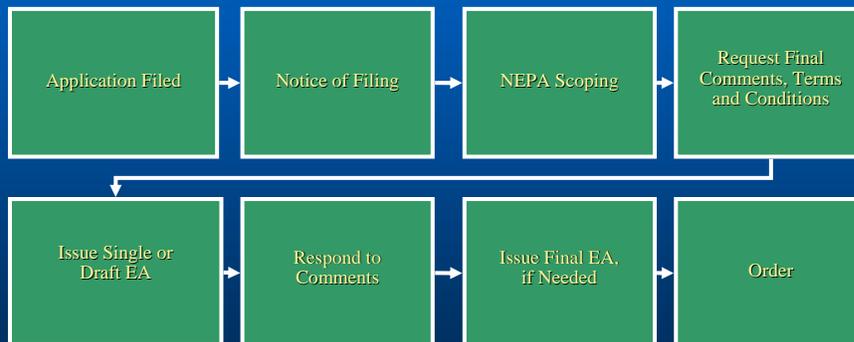
Traditional Licensing Process *Pre-filing*



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Traditional Licensing Process *Post-filing*



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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

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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

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Filing Comments with FERC

Please put docket No. AD09-9-000 on the first page of any comments.

Comments can be filed electronically or via paper. Instructions for filing comments can be found on www.ferc.gov – see the "Documents & Filing" link.

Comments are due January 4, 2010

For more information contact: Steve Hocking at 202-502-8753 or steve.hocking@ferc.gov

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Panel Discussions



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