



US Army Corps of Engineers



The Hydropower Mission of Federal Agencies: Programs, Challenges & Opportunities

Congress on Assessing America's Renewable Energy Future

Reston, VA

8 December 2009

“A green carbon-free national strategic energy resource!”



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US Army Corps of Engineers



"One of the best opportunities we have to increase our supply of clean energy is by bringing our hydropower systems into the 21st Century. With this investment, we can create jobs, help our environment and give more renewable power to our economy without building a single new dam."

Secretary of Energy Steven Chu announcing modernization awards under the American Recovery and Reinvestment Act

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Vision & Mission

Be the premier stewards of entrusted hydropower resources.

Provide reliable hydroelectric power services at the lowest possible cost, consistent with sound business principles, in partnership with other Federal hydropower generators, the Power Marketing Administrations, and Preference Customers, to benefit the Nation.

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Presentation Objectives

- Federal Hydropower Capability
- USACE Hydropower Program
- Program Challenges & Opportunities
- Questions/Discussion

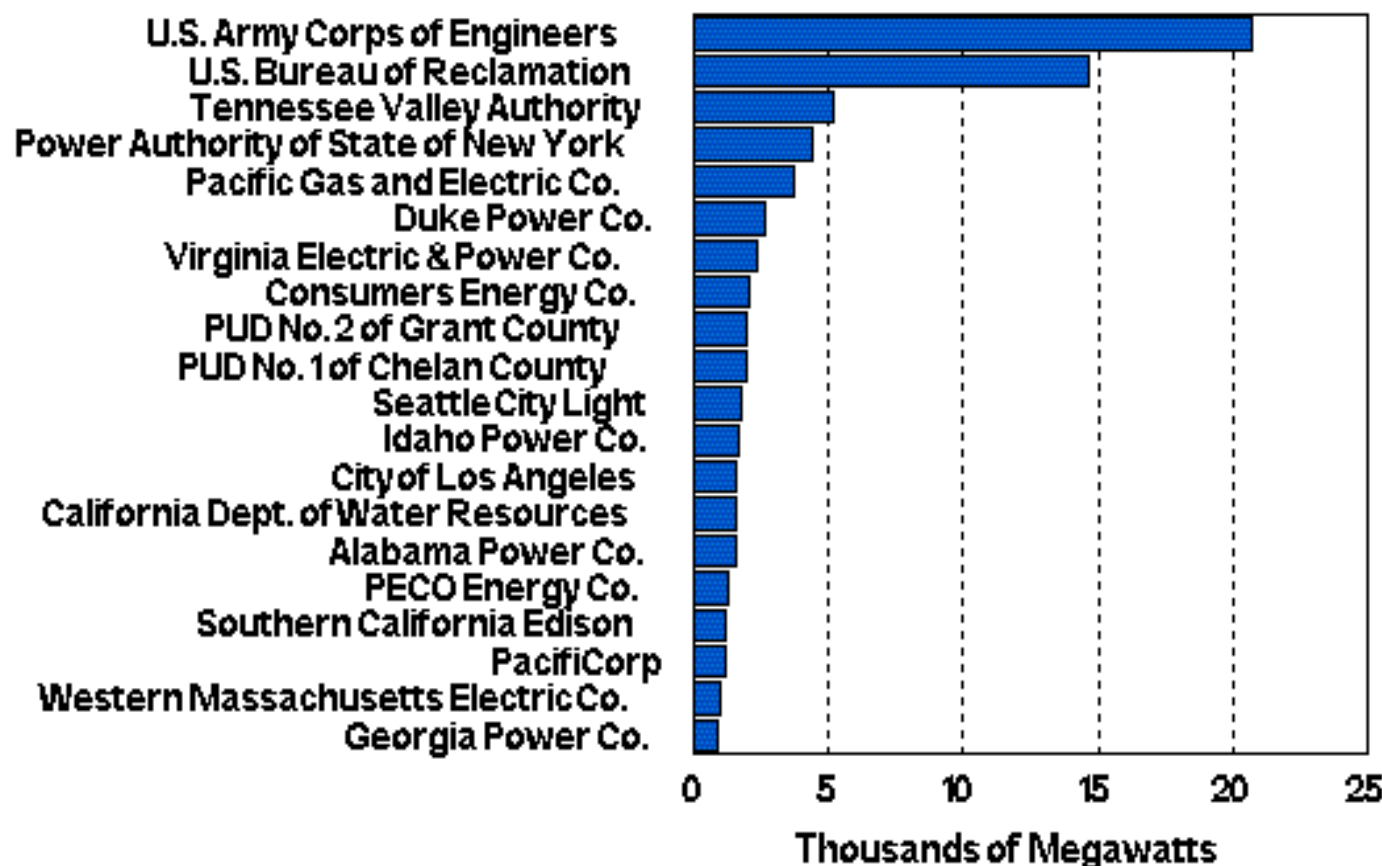


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Major Producers of Hydropower

Hydroelectric Generation Capacity in Megawatts



Includes Pumped Storage



USACE Hydropower Capability

- 75 power plants with 350 generating units in 5 Divisions and 16 Districts across USA
- 21,000 MW of capacity, largest in US
 - Represents 24% of total US hydro capability
- 70 billion KWh of average annual energy, equivalent energy for



30 cities the size of Seattle, WA

- Generates over \$3 billion in gross annual revenue
Total capital investment
~\$20 billion (2007 dollars)
- Over 90 FERC licensed power plants at Corps dam with 2,300 MW capacity

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RENEWABLE HYDROPOWER ENERGY GENERATED

- **68 billion kilowatt-hours generated in FY 2009**
- Trend: Negative: 3% decrease from previous five-year average (FY04-FY08)
- Significance:
 - Provides clear non-polluting energy to over 7 million households
 - Avoids burning 27 million tons of coals or 39 million barrels of oil
 - Avoids approximately 57 million tons of CO_{2e} GHG emissions



Program Strategic Objectives

- Provide power services at lowest sustainable cost through sound project management principles.
- Meet or exceed industry standards for reliability and availability through sound strategies such as asset management and sustainment of a skilled workforce.
- Optimize the hydropower resources within authorized project purposes and environmental laws.
- Strengthen and sustain hydropower partnerships with the power marketing administrations, preference customers, federal power agencies and other stakeholders.

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Program Challenges & Opportunities

- Adequate Program Funding
- NERC Electric Reliability Compliance
- Hydropower Modernization Initiative
- Non-Federal Hydropower Development
- Federal Hydropower Agency's Energy MOU





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Questions!

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