

RECLAMATION

Managing Water in the West

Non-Federal Development at Reclamation Facilities



U.S. Department of the Interior
Bureau of Reclamation

Reclamation Power Program

- Own and operate 53 hydropower plants
- 176 Units
- 14,639 MW
Installed Capacity
- 2nd Largest
Hydropower
Producer in
United States
- 40 Million MWH
Annual Average
Net Generation
- Approximately 7 Percent of Power in West



Reclamation Power Program

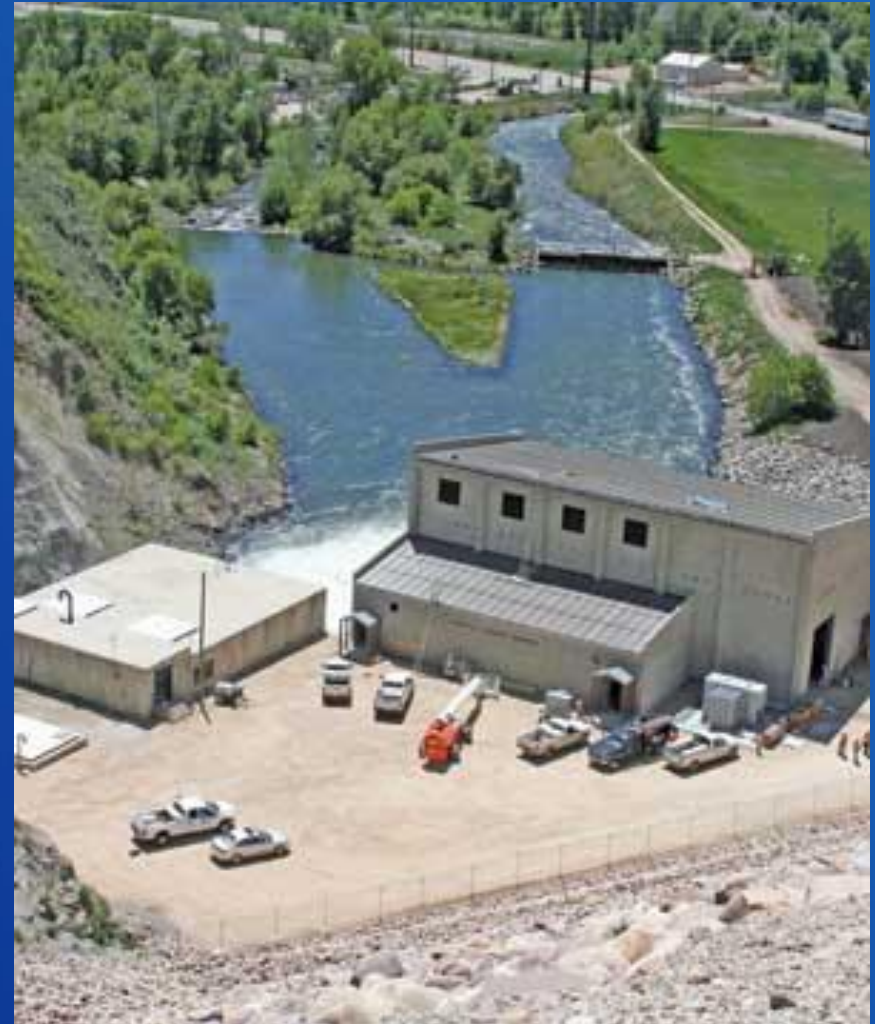
- Offsets 27 million tons of carbon dioxide
- Saves 6.8 million tons of coal
- Saves 23.5 million barrels of oil





Non-Federal Development

- 76 power plants added to Reclamation dams and canals by non-federal entities
 - Specific legislation
 - Lease of Power Privilege
 - FERC licenses



Continuing Interest

- Currently 26 projects in the FERC licensing process
- Currently 14 projects in the Lease of Power Privilege process



1981 Reclamation/FERC MOU

- **If authorized for Federal development**
 - Reclamation can develop the site
 - A Non-Federal Developer can enter into a Lease of Power Privilege Agreement
- **If not authorized for Federal development**
 - FERC License

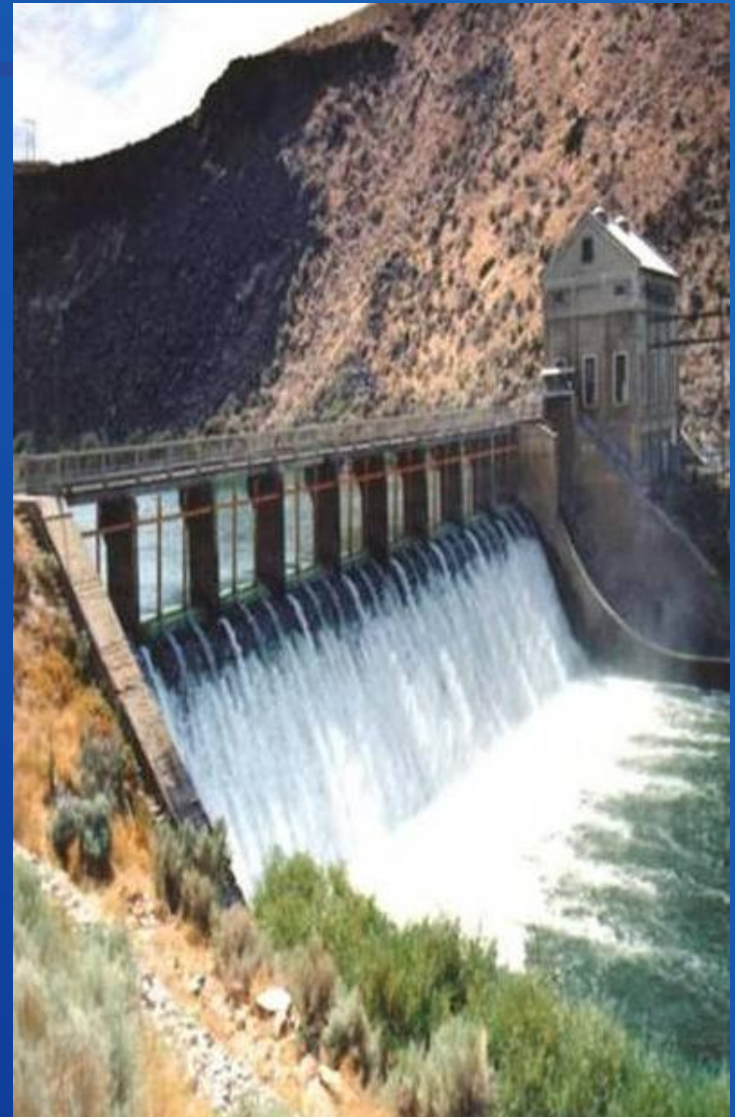
1992 Reclamation/FERC MOU

- Establishes a process for the early resolution of jurisdictional issues related to non-federal hydropower development at Bureau of Reclamation facilities



Lease of Power Privilege

- **Reclamation Project Act of 1939**
 - 40 year lease (max)
- **Selection of the lessee through a public process**
- **Preference to municipalities, public corporations or agencies, and cooperatives financed through the Rural Electrification Act of 1936**



Lease of Power Privilege (continued)

- Adequate design information
- Satisfactory environmental analysis and impacts
- And must not be detrimental to the existing project



Lease Payments

- **Lease payments to the United States shall be consistent with Section 9(c) of the Reclamation Project Act of 1939, so as to represent an equitable amount charged for the use of the Reclamation facility. In addition, the lessee shall share in the cost of operation, maintenance, replacement, and security of any existing Federal facilities that benefit the lessee's power facility unless otherwise provided by law.**

New Tools for Hydropower Developers

- **Hydropower potential at non-powered dams**
 - Reclamation is conducting a resource assessment study to quantify the hydropower potential at 530 Reclamation non-powered dams and other structures
 - Draft Report Due In October 2010



Grant Programs

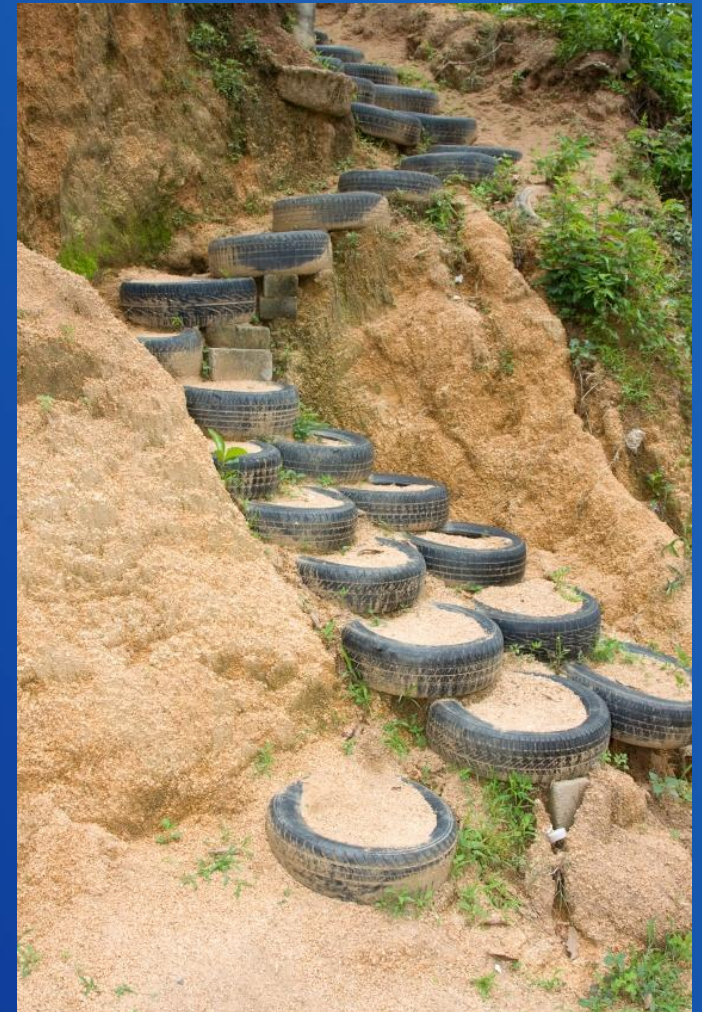
- **WaterSMART Water and Energy Efficiency Grants**
 - ~\$18 Million in funding in FY 2010
 - 50/50 Cost Share for projects up to \$1 Million
 - Energy Efficiency and Renewable Energy impacts are a part of the overall evaluation criteria
 - Laguna Madre Water District in Port Isabel, Texas was awarded \$300,000 to make improvements to its non-potable water system
 - Project includes the installation of an energy recovery turbine to create an expected 17,520 kilowatt-hours per year of electricity from wastewater flows.
 - www.usbr.gov/waterSMART

Technology Request For Information

- DOE and Reclamation requested input from the public on new, advanced hydropower technologies that are ready for demonstration and testing, or that are worthy of additional research and development investments.
 - Issued August 16, 2010
- Topics include:
 - Small Hydro
 - Environmental Mitigation Technology
 - Demonstration Ready Hardware and Software
- <https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0000406&agency=DOE>

Next Steps

- Standardization of lease of power privilege
- Standardized lease cost methodology
- Investigating a dedicated renewable energy grant program
- Research into pumped storage development
- Identifying sites on Reclamation constructed waterways with development potential
- Sustainable Hydro Pilot Project





Thank You!

- Michael Pulskamp,
Power Resources Office
mpulskamp@usbr.gov
(303) 445-2931

Power Website: <http://www.usbr.gov/power>

RECLAMATION