Hydropower Potential Screening Study

Gillian Charles
GRAC
5/28/14
Latest Hydropower Potential Study Creating a Buzz

2014 DOE study on undeveloped stream reaches

- 84.7 GW undeveloped hydropower capacity in the US
- Highest potential found in the PNW (~25 GW)
New Stream-reach Development (NSD) Potential by Subbasin for the United States

Watershed Boundary Dataset (WBD) Regions
01-New England
02-Mid Atlantic
03-South Atlantic Gulf
04-Great Lakes
05-Ohio
06-Tennessee
07-Upper Mississippi
08-Lower Mississippi
09-Souris-Red-Rainy
10-Missouri
11-Arkansas-White-Red
12-Texas-Gulf
13-Rio Grande
14-Upper Colorado
15-Lower Colorado
16-Great-Basin
17-Pacific Northwest
18-California
19-Alaska
20-Hawaii

This map was produced by Oak Ridge National Laboratory for the U.S. Department of Energy.

Northwest Power and Conservation Council
nwccouncil.org
Study claims that PNW has ~25GW new stream hydro potential

- ~16 GW Potential in undeveloped stream reaches >1 MW
- ~9 GW Potential in undeveloped stream reaches <1 MW
- ~33 GW Current existing hydropower in the PNW
Studies at both National and Regional level over past decade
Study Objectives

- Hire consultant to review inventory of recent studies and reports, characterize parameters used to determine potential, and draw conclusions
- Determine if reasonable assumption for hydropower potential in the PNW can be drawn from the various reports
  - Focus on new stream reaches, opportunities at existing non-powered dams, and upgrades at existing hydropower facilities
Preliminary Schedule

- **June 10** - Present proposed study to Power Committee; release RFP
- **Mid-July** – Select consultant; kick-off meeting
- **September/October** – Conclude study; present results to Hydro Subgroup and/or GRAC; present to Council and determine next steps