

Hydro Benchmarking in EUCG

The Hydroelectric Productivity Committee

Hydroelectric Productivity Committee



- EUCG's Hydroelectric Productivity Committee (HPC) is a low-cost, memberdriven forum for cost and performance benchmarking and practices sharing.
- Comprised of ten utility members from throughout North America
- Objectives of the HPC are:
 - to maintain and improve a database that allows for comparative analysis of cost and performance information;
 - to build and maintain membership and database participation; and,
 - to provide effective products, including:
 - a database:
 - · practices sharing; and,
 - · peer exchange symposiums.
- Membership benefits include:
 - Annual cost and performance reports
 - Web based access to database for standard and custom report
 - Staffing and safety survey reports
 - Ad hoc surveys based on member needs
 - Networking opportunities at EUCG workshops

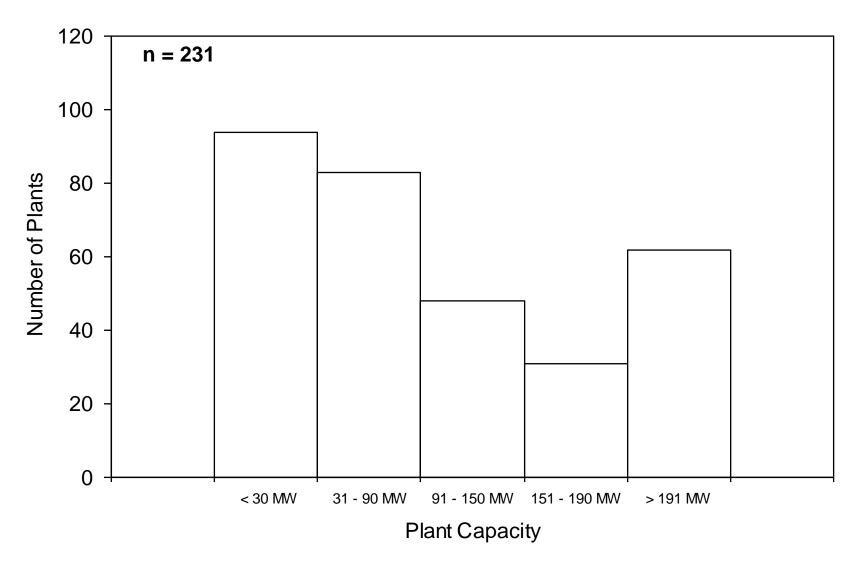
HPC Database



- Plant profile
 - 230 hydro stations (including pumped storage
 - Plants range in size from 350 kW to over 6,000 MW
 - Single unit plants to 27 units per facility
- Cost and performance data collected and analyzed annually
- Web-accessible for uploading data and downloading blinded data and standard analytical reports
- Designed and managed by an independent third party contractor with functionality defined by the HPC
- Benefits include:
 - Low cost service
 - Centrally controlled functions, including database integrity, data quality monitoring, and data security
 - User-friendly interface
 - Direct data input by users, reducing time and expense of data management
 - Faster turn around time. Essentially, once data is in the system, analysis and reporting can commence.
 - Increased flexibility for off-line customized analysis by HPC members

Distribution of Plant Sizes

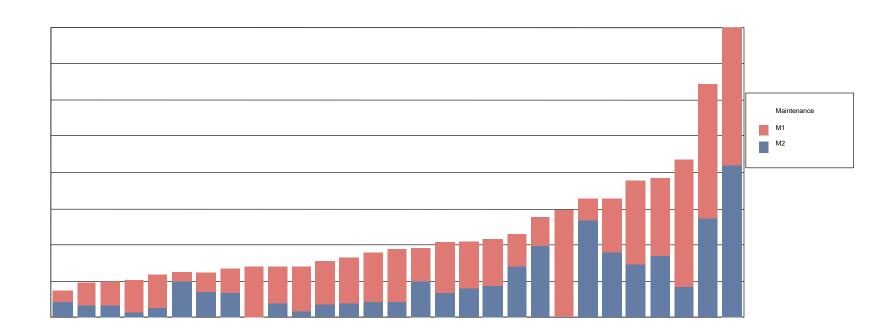




Standard Reports



Maintenance Costs in \$/MWh



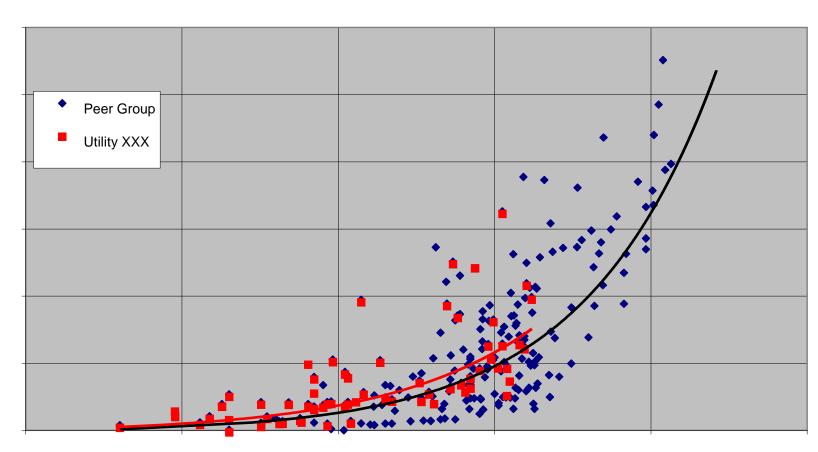
Plant Code

Total Maintenance Dollars/Net Generation

Customized Analysis



Operation vs Plant Size



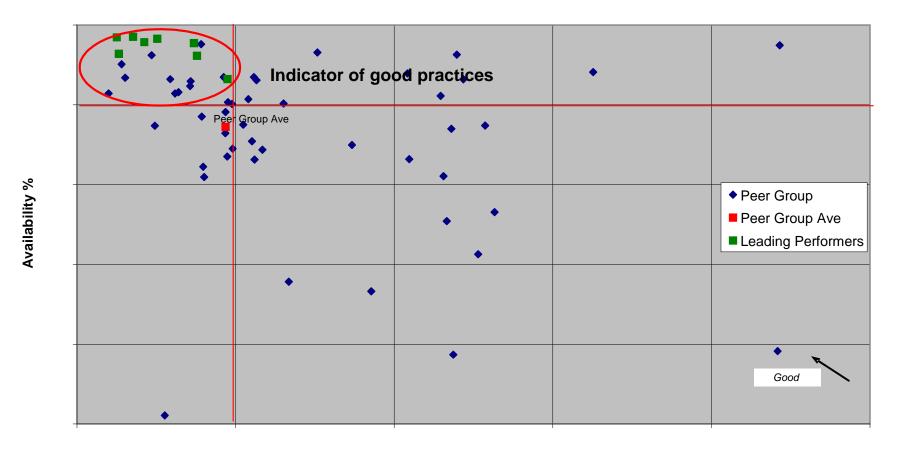
Plant Size in MWs

Operation Costs

Identifying Cost and Performance Leaders



Availability vs Operations & Powerhouse Maintenance



Operations & Powerhouse Maintenance Expense, \$/Installed Kilowatt

Other HPC Products



- Practices Sharing
 - During EUCG semi-annual meetings, HPC members discuss practices that drive database results
 - Audience is primarily program managers
- Hydro Management Symposium
 - In addition to EUCG meetings, the HPC sponsors workshops for peer exchange of operations and maintenance practices
 - Also uses database results to inform discussions
 - Content is more technical in nature
 - Audience is primarily generation managers and plant personnel
 - Held every year or two



For additional information contact:

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