



## Dealing with Increased Fault Levels in Hydro Generating Plants

**Location:**

Washington, U.S.

**Segment:**

Hydropower-producing dam

**Problem:**

The station service switchgear was over dutied.

**Solution:**

Upgrades were made to the switchgear.

A large, federally run dam in the Pacific Northwest containing twenty-seven generators, is the second largest hydropower-producing dam in the United States.

This facility, located in Washington, determined that its station service switchgear was over dutied due to various expansions within the facility. Eaton® Engineering Services & Systems (EESS) obtained an order to upgrade the interrupting rating of this Allis Chalmers switchgear from 150MVA to 250MVA.

This was accomplished through the following steps:

1. Taking detailed field measurements of existing bus bracing, bus configuration and cable supports,
2. Using this data to perform a computer analysis to define the maximum rating for the currently configured switchgear, and
3. Design and installation of new bus support windows, bus bracing and cable supports to obtain a rated 250MVA.

Additionally, all the circuit breakers were replaced with modern roll-in replacements having the appropriate interrupting rating.

**Eaton's Electrical Services & Systems**

Eaton's engineering and consulting services focus on understanding your business requirements and setting strategies for your power system to satisfy them. Our engineers and consultants can help diagnose problems identify ways to improve performance, or transform concepts into flexible, practical solutions that can improve productivity and capital utilization. We can help keep your power system safe, efficient, reliable and up-to-date.

The Eaton global service team is one of the largest and most experienced teams of power system engineers in the industry, with industry-standard software and advanced modeling and analysis capabilities at our fingertips. Our comprehensive portfolio of design services includes safety studies, energy management audits, and power quality and reliability audits.

With Eaton's help defining strategies for your power system, you'll witness a range of business benefits, from reduced costs to more effective use of capital. Our engineering and consulting services help you manage your power system as a strategic resource that can give you a competitive advantage.

Call **1-800-498-2678** to get expert support for powering and controlling your business. For more information, visit: [www.eaton.com/EESS](http://www.eaton.com/EESS)



*Powering Business Worldwide*

Eaton Corporation is a diversified power management company ranked among the largest Fortune 500 companies. Eaton is a global leader in electrical components and systems for power quality, distribution and control; hydraulics components, systems and services for industrial and mobile equipment; aerospace fuel, hydraulics and pneumatic systems for commercial and military use; and truck and automotive drivetrain and powertrain systems for performance, fuel economy and safety. Eaton has approximately 73,000 employees and sells products to customers in more than 150 countries. [www.eaton.com](http://www.eaton.com)

©2012 Eaton Corporation, All Rights Reserved, Publication No. AD08303003E/TN, May 2012