

British Columbia Utilities Commission Information Request No. 1.54.1 Dated: April 13, 2005 British Columbia Hydro & Power Authority Response issued April 29, 2005	Page 1
British Columbia Hydro & Power Authority 2005 Resource Expenditure and Acquisition Plan ("REAP")	

54.0 Reference: 2005 REAP, pp. 3-57, 3-58 GM Shrum Capacity Increase

1.54.1 Please provide detailed project scope descriptions for the capacity increase projects for Units 6, 7 and 8 at GM Shrum.

RESPONSE:

The GM Shrum capacity increase project is in the Definition Phase of work. The outcome of this phase is to confirm the capability to increase the capacity as well as the associated costs and benefits. The following are the critical items that remain for this phase of work:

- **Finite element analysis to assess mechanical stresses in the generator rotor,**
- **Generator heat run assessment to confirm that the generators can operate at the increased capacity within unit temperature limits,**
- **An extensive testing and inspection program to confirm condition of unit components,**
- **A definition study to determine the detailed requirements for uprating the generator circuit breakers and isolated phase buses.**

If the project proceeds as currently scoped, it is anticipated that a business case would be prepared leading to the following work:

- **Supply and installation of new generator rotor poles with new windings,**
- **Upgrading of the existing isolated phase buses and generator circuit breakers to 14.4 kA rating, and**
- **Upgrading of instrumentation, protection and control systems.**