

British Columbia Utilities Commission Re-issued Information Request No. 1.33.3 Dated: 01 December 2004 BC Hydro Response issued 17 December 2004	Page 1
British Columbia Hydro and Power Authority Call for Tenders for Capacity on Vancouver Island Review of Electricity Purchase Agreement	

**33.0 Reference: CFT Report, p. 19**

BC Hydro states; "The conclusion of the cost-effectiveness analysis was that the Tier 1 result (awarding an EPA to the Duke Point Power Project) is the most cost-effective outcome for ratepayers on both a quantitative and risk-adjusted basis. As stated in the VIGP Decision, cost effective includes considerations such as reliability, dispatchability, timing, location, safety and cost to ratepayers and the financial capability of the utility."

1.33.3 Please provide industry benchmarks and other reference data for the availability and reliability indices and maintenance requirements and shutdown periods for the critical equipment in the Tier 1 Project as a function of annual operating factor and annual stops/starts.

**RESPONSE:**

**According to information provided by Duke Point Power LLP, the Duke Point Project will utilize an "F" class gas turbine using combined cycle design technology which has been proven by the installation and operation of hundreds of similar facilities throughout the world. The "F" class design is the most utilized gas turbine design ever, with the highest number of installed units in operation.**

**Availability for industry standard "F" class design plants ranges from 93% to 97% on an annual basis. For this purpose, availability is measured by factoring in all planned and unplanned outages during the course of a year.**

**Reliability for industry standard "F" class design plants averages 98% as a function of annual operating factor. Reliability is measured by factoring in all unplanned outages during the course of a year.**

**The industry standard capability for "F" class design plants is 200-400 starts per year.**