

## **ENERGY STUDY REQUIREMENTS**

**File Number:**

**Customer:**

The detailed scope of work for a Facility Energy Study will include any relevant items agreed to during the BC Hydro technical review process between the engineering consultant and BC Hydro as outlined below:

Original Energy Study proposal received from **CONSULTANT** dated **YYYY-MM-DD**.

Revision 1 dated Month DD, YYYY

Revision 2 dated Month DD, YYYY

Revision 3 dated Month DD, YYYY

### **Specific Energy Study Requirements - Lighting**

- Identify upfront, in the text and the spreadsheet audit form, the areas that have been previously retrofitted under Power Smart incentive projects. These areas should not be included in this study.
- Conduct a site lighting survey room-by-room and review lighting control systems.
- Interview key personnel and document general findings.
- Identify all recommended lighting and control upgrades.
- For extensive redesign opportunities provide marked-up floor plans (where available) for both the existing system and proposed lighting upgrade.
- Perform energy saving calculations using BC Hydro provided or BC Hydro approved energy savings lighting calculator in MS Excel format (incl. estimated cost of proposed measures).
  - Consultants that have established calculators in spreadsheet format may request BC Hydro to provide them with the developer package so they can upgrade their spreadsheet and submit to BC Hydro for approval. Upgrading costs will be the Consultant's responsibility.
  - Complete energy savings calculations by completing the BC Hydro calculator with audit and energy conservation measures data. Provide CD copy with read/write Excel electronic copy (PDF is not acceptable) with the Energy Study report.
- For BC Hydro incentive calculations provide incremental costs. Where a simple retrofit is planned for luminaires, incremental costs will be the proposed install costs. Where completely new luminaires are specified for esthetics or because of the age of the luminaires, provide separately the cost for a retrofit option as an incremental cost. BC Hydro will calculate incentive based on the incremental cost only.
- Perform financial analysis on resulting paybacks and of alternatives.

### **Specific Energy Study Requirements - Mechanical**

- INPUT IF REQUIRED

### Specific Energy Study Requirements - Green IT

The following supporting information is to be provided:

- Completed IT Calculator
- Spreadsheet of baseline computer counts and model descriptions per site.
- Metered average electrical demand in watts per baseline computer model type.
- Metered average electrical demand in watts per ECM computer model type.
- 2-3 week full operational report and saved full console report for computer power management.
- Increased server virtual machine counts per site.
- Increased server virtual host counts per site.
- Operational hours of reduction per server from server power management.
- UPS electrical KVA input and output loading.
- Spreadsheet of baseline plug load counts and model descriptions per site.
- Metered average electrical demand in watts per baseline plug load model type.
- Metered average electrical demand in watts per ECM plug load model type.
- Replaced plug load model counts by ECM plug load model counts by per site.

**BC Hydro expects these requirements to be addressed by the Consultant performing the study in addition to Minimum Energy Study Requirements.**