

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide a study to evaluate the <TYPE OF EQUIPMENT> being considered. The intent of this study is to evaluate the suitability of this equipment for its intended use. Verify that the specified and supplied equipment is correctly applied.
- B. The study shall include an evaluation of the <INPUT, OUTPUT, CONFIGURATION, PROTECTIVE DEVICES, FILTERING, TOPOLOGY, SEMICONDUCTOR TECHNOLOGY, MODULATION, SWITCHING, > The study shall consider operation during normal conditions, alternate operations, emergency power conditions, and any other operations which could result in a worst case scenario.

1.2 QUALIFICATIONS

- A. The study shall be prepared by a qualified engineer of an independent consultant. The consultant shall be a Registered Professional Electrical Engineer (licensed in the state where the project is completed) who has at least ten (10) years of experience in the application and use of <TYPE OF EQUIPMENT>.
- B. The study shall include the modeling of the <TYPE OF EQUIPMENT> in the target system, if necessary. The modeling shall be performed on the SKM computer software packages. No substitutions.
- C. Pre-approved: PowerStudies, Inc. – Maple Valley, WA.

1.3 SUBMITTALS

- A. The study shall be submitted no later than 30 days after the electrical equipment submittals have been received for review by the engineer. The electrical submittals will be reviewed but will not be approved until the study has been received and reviewed.
- B. Submit three (3) copies of the study.

PART 2 - EXECUTION

2.1 EQUIPMENT EVALUATION

- A. After review of submittals, engineer shall contact manufacturer and obtain all data relevant to the evaluation of the <INPUT, OUTPUT, CONFIGURATION, PROTECTIVE DEVICES, FILTERING, TOPOLOGY, SEMICONDUCTOR TECHNOLOGY, MODULATION, SWITCHING>.
- B. Engineer shall discuss variations of each aspect under evaluation with manufacturer's engineering staff.
- C. Engineer shall develop a matrix outlining advantages and disadvantages of each <INPUT, OUTPUT, CONFIGURATION, PROTECTIVE DEVICE, FILTER TYPE, TOPOLOGY, SEMICONDUCTOR TECHNOLOGY, MODULATION TECHNIQUE, SWITCHING METHOD> evaluated.

PART 3 - ANALYSIS

Analyze the advantages and disadvantages of each <INPUT, OUTPUT, CONFIGURATION, PROTECTIVE DEVICES, FILTERING, TOPOLOGY, SEMICONDUCTOR TECHNOLOGY, MODULATION, SWITCHING, > and organize the results to present the most likely configuration first.

Highlight any elements that can not be changed. Propose approaches for enhancing performance of <TYPE OF EQUIPMENT> within any confines identified by the manufacturer. Ensure that any proposed modifications to standard products can be UL listed.

PART 4 - REPORT

The results of the study shall be summarized in a final report. The report shall be in the format of a letter and shall include the following elements:

- A. Introduction, assumptions, summary and recommendations.
- B. Copies of original submittals and additional manufacturer's data.