

BENCHMARKING ASSESSMENT TOOL

Society of Cable Telecommunications Engineers



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Background

Problem Statement

Cable facilities are a large energy consumer, with utility prices expected to increase to \$4 billion annually by 2020.

However there are not many resources available for energy management and conservation strategies for these facilities

Project Objective

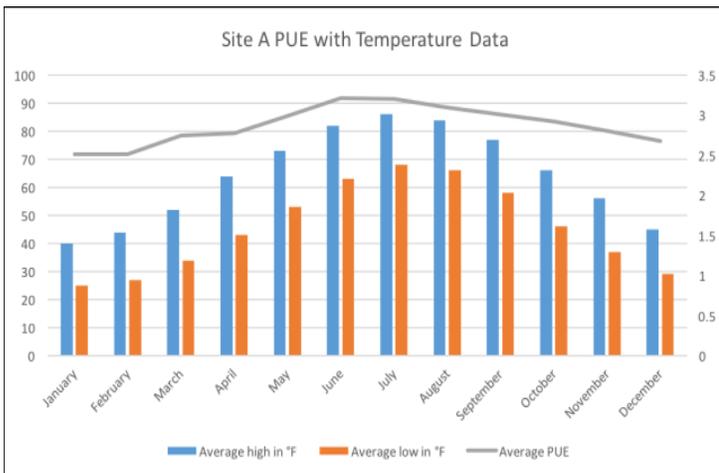
Develop a diagnostic tool to benchmark the facilities energy usage

Help cable facilities achieve the SCTE Energy 2020 goals and develop targets beyond the program

Beta Prototype

- Developed in Fall 2016
- Tracks energy consumption over time
- Captures changes in equipment operation
- Opportunities to enhance user Experience and add financial analysis component

Beta Prototype Results



Spring 2017 Updates

User Experience

Three macros were added to the tool to guide the user in adding the electricity data, the equipment inventory, and perform the calculations. The tool was able to handle larger datasets and perform the calculations faster.

Financial Analysis

A financial analysis model was added to the tool to help users show the financial impact of energy savings projects. The model produced valuable metrics, including net present value, internal rate of return and payback.

Summary

Results

The addition of the macros significantly reduce the time to add and analyze the data and lower the probability of the program crashing. The financial analysis tool provides helpful metrics to support investment in energy savings projects.

Conclusions

Tracking this information is valuable and necessary for a successful energy management program. With the addition of the macros and financial model, the tool is more valuable to encourage users to track energy use and to achieve the Energy 2020 goals.

Next Steps

The tool should be used with a smaller facility to ensure the applicability of the tool is universal and to identify opportunities for improvement. The development of a Microsoft SQL database should be evaluated as a long term application of the tool.