

Alpena Power Company

Project Title

GIS Electric System Geodatabase & Conversion Project



Project Description

For many years, Alpena Power Company (APC) has maintained electric system mapping in hand-drawn mylar format. They have a great desire to conserve and maintain the mapping more efficiently, and move towards a more robust and central information system within APC. In addition, they wish to realize the advantages of GIS for themselves and in their operations. To do this they would like to utilize ESRI's geodatabase and the ArcGIS system for the mapping and analysis portion of their enterprise system.

InfoGeographics has been contracted to design and transform the existing electric system maps as well as provide training and look at short and long-term applications of the system.

Project Responsibilities

InfoGeographics followed a structured methodology to accomplish the project goals. These entail the following steps and methods:

Database Logical Design

- UML design using Visio Enterprise
- Ensuring compatibility with GIS mapping already existing for the City of Alpena and Alpena County
- Ensuring compatibility with the ArcGIS Electric Utility Geodatabase Model
- Ensuring that the design can accommodate easy maintenance of the system
- Ensuring that the design can accommodate the desired network routing components and connections to other database systems

GIS Applications Functional Specification

- Investigate and identify short and long term GIS Applications
- Detail the interface, nature of and general presentation of necessary data, and functional capabilities of the chosen Key Applications
- Provide documented Functional Specifications to serve as a blueprint for future development

Conversion of the Existing Mylar Maps

- With project partner, Smart Data Strategies, Inc. (SDS), all mylar maps are to be converted into the Geodatabase design
- Extensive quality control techniques will be applied to the conversion effort

Implementing the Schema, Importing, and Testing of the Electric System Data

- Transferring the UML geodatabase design through the Windows Repository into ArcInfo 8.x format
- Integrating the converted electric system data into the geodatabase
- Testing involving interactive and batch identification of features
- Testing the tracing/routing functionality to ensure proper junction-edge connectivity

Training & Miscellaneous Support

- Training of APC staff to maintain and improve the Electric System Geodatabase
- Other ad hoc tasks as assigned

Contact

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