



**Public Service
of New Hampshire**

The Northeast Utilities System

PUBLIC SERVICE OF NEW HAMPSHIRE

**DISTRIBUTION
GEOGRAPHIC INFORMATION SYSTEM
JANUARY – JUNE 2013 PROGRESS REPORT**

June 26, 2013

For Submission to the New Hampshire Public Utilities Commission.

Table of Contents

1.	Summary.....	1
2.	Progress.....	2
3.	Performance to Budget	3
4.	Upcoming Activities	3
5.	Conclusion	4

1. Summary

The settlement agreement approved by the Commission in PSNH's distribution rate case (Docket No. DE 09-035) required the implementation of a Geographic Information System (GIS) in order to support an Outage Management System (OMS):

6.3 Upon approval of the Settlement Agreement, PSNH will initiate and complete a High Level Design for the GIS project by July 1, 2011. The High Level Design will include project management details sufficient to establish milestones, base schedules, budget expenditures, and the vendor selection. PSNH commits to install and have operational those elements identified in accordance with the schedule established in the High Level Design by December 31, 2014. On a semi-annual calendar year basis commencing on July 1, 2011, PSNH will provide a progress report to the Settling Parties detailing project milestones and achievements for the prior 6-month project period. Additionally, the semi-annual reports shall include key project dates for the remainder of the project, comparison of capital and O&M expenditures to planned REP II budget amounts and a detailed definition of tasks for the upcoming 6-month and 12-month periods. The High Level Design will also incorporate design of a GIS-based Outage Management System (OMS), including an implementation schedule. Prior to the implementation of a GIS-based OMS, PSNH will continue to implement enhancements to its existing OMS that will provide improved outage restoration information to customers, state officials and the general public.

In support of this settlement, a multi-phase GIS project was established. Figure 1 represents the updated deployment schedule. The revised project completion date of December 31, 2013 significantly differs from the previous date of December, 31, 2014; as presented to the NHPUC in the High Level Design submitted in July, 2011.

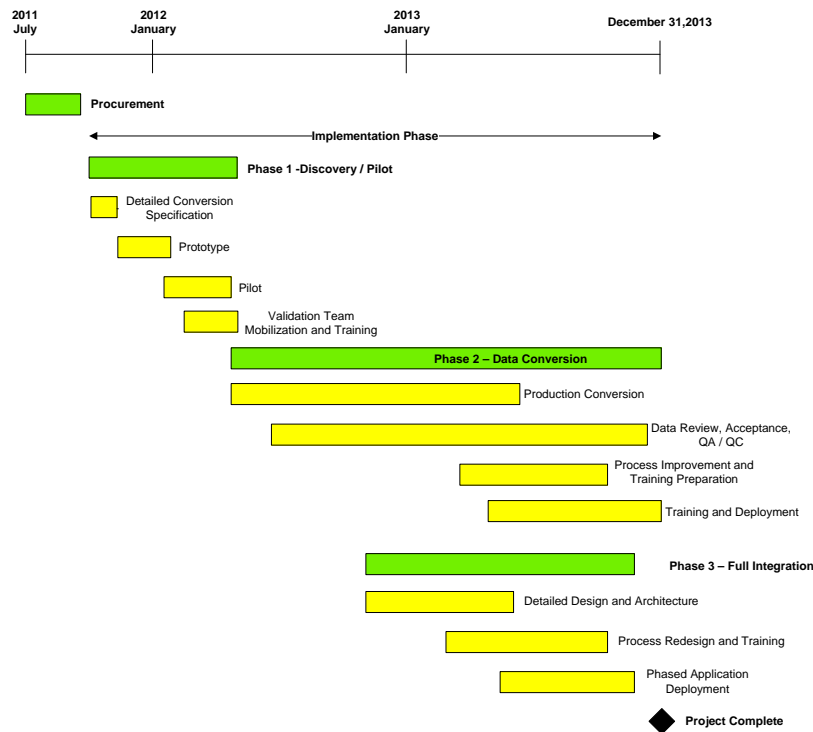


Figure 1 – PSNH GIS Project Schedule and Milestones

The GIS project continues to track to the schedule identified in Figure 1 and actual expenditures through May 2013 are consistent with the budget projections.

This document provides a semi-annual update for the period January to June 2013, in accordance with the settlement in NH PUC Docket No. DE 09-035. This update includes a six-month update on status and budget, and identifies tasks on the six month horizon.

2. Progress

After issuance of a Request for Proposal (RFP) seeking a highly-qualified vendor to provide GIS conversion and programming, PSNH selected Ramtech as the GIS project vendor for data conversion and GIS application development services. Ramtech, in conjunction with internal Northeast Utilities IT resources, will build the GIS platform to meet the functional requirements of the High Level Design submitted on July 1, 2011. Based on the work performed to date, the GIS will serve as the foundation for an Outage Management System (OMS), as well as an engineering and reliability analysis tool. Based on one of the recommendations contained in the Commission's October 2011 Snowstorm Report, PSNH has accelerated the project to finish by December 31, 2013: previously the project completion date was year-end 2014.

The following key milestones were achieved during the six-month reporting period:

1. Data Conversion – Circuit map conversion of five additional geographic areas were completed. The five areas include: Epping, Rochester, Derry, Nashua, and Hooksett. This is 75% of the total data to convert, and twelve geographic areas completed since the project inception.
2. Employee Outreach – PSNH is implementing the organizational change management and communications plan to educate and inform employees of the new tools, data access, and processes.
3. Business Process Improvement - Employees have been trained on the new processes and applications as converted data becomes available for their work centers.
4. Integration - Complete development and implementation of interfaces to existing software applications to enable process automation and reduce duplicate data entry. These systems include:
 - a. Implement tool allowing for maintenance of information which links PSNH customers to distribution system devices such as transformers.
 - b. Process to update PSNH's customer information system with PSNH converted GIS map ID's.

3. Performance to Budget

Table 1 provides a comparison of budget versus actual expenditures as well as the forecast for the remainder of the project as of May 31, 2013.

Project inception to May 31, 2013 (in Millions)

	<u>Budget</u>	<u>Total Actuals All Years</u>	<u>Remaining Budget</u>
Capital	\$10	\$6.17	\$3.83
O&M	\$1	\$0.10	\$0.90
TOTAL	\$11	\$6.27	\$4.73

Table 1: Budget to Actuals

4. Upcoming Activities

Over the course of the next six months, the second half of 2013, PSNH will undertake the following activities:

1. Data Conversion – Conversion of the remaining four geographic areas will take place, which will include: Milford, Keene, Hillsborough, and Newport. This will complete the data conversion.
2. Reliability Application - PSNH will complete development of an application to store trouble data in a centralized location. Additionally the application will thematically map trouble locations and associated information for reporting historical outage information.
3. Business Process Improvement - All applicable staff will be trained on the new processes.
4. Integration – Complete development and implementation of interfaces to existing software applications to enable process automation and reduce duplicate data entry. These systems include:
 - a. Implement the GIS export interface, allowing infrastructure export from Smallworld into the graphical design tool.
 - b. Routines for plotting of PSNH paper map products.
 - c. Implement tool allowing for maintenance of customer to transformer relationships.
 - d. Process to update PSNH's customer information system with PSNH converted map ID's.
5. Employee Outreach – PSNH will complete the organizational change management and communications plan to educate and inform employees of the new tools, data access, and processes.
6. Paperless Map Solution – Evaluate and develop an application utilizing tablet computers as a substitute for paper maps for line crews.

5. Conclusion

During this reporting period, PSNH completed the conversion of detailed circuit maps and system data for five additional geographic areas, bringing the total converted areas to twelve out of sixteen. PSNH also developed business process improvements to ensure GIS data is maintained in a timely and accurate manner, and that PSNH is best organized to take advantage of the GIS and its associated work flow benefits. Employee outreach continued, incorporating GIS into employee workflows and processes. In summary, the project is on schedule based on the revised completion date of December 31, 2013, and has not exceeded the budget previously reported to the Commission.