



NORTHEAST POWER COORDINATING COUNCIL, INC.
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Compliance Audit Report Public Version

Hingham Municipal Lighting Plant

September 5 to September 21, 2009

September 21, 2009

**Confidential Information (including Privileged and
Critical Energy Infrastructure Information)
Has Been Removed**

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Executive Summary

The off-site compliance audit of Hingham Municipal Lighting Plant (HMLP) was conducted between September 5 and September 21, 2009. The audit was completed using data submitted by HMLP prior to the start of the off-site audit and data provided as a result of questions that arose during the audit. The audit was performed by NPCC to demonstrate compliance within the NPCC footprint.

The auditor evaluated HMLP's compliance with 11 reliability standards and 18 requirements identified in the NERC 2009 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each, reliability standard.

Of the 11 standards and 18 requirements audited for the functions HMLP is registered, 8 standards and 13 requirements were judged to be compliant and 3 standards and 5 requirements was judged to be not applicable.

HMLP staff provided overviews of each standard, resulting in a more clear understanding of their business model and accelerated the audit process. The evidence provided to demonstrate compliance was well presented and well organized. The audit team would like to thank the HMLP staff for their support offered throughout the audit.

This audit report depicts all activities performed by the audit team during the audit. Some information discussed during the course of the audit is non-public. Any non-public information included in this report is listed in the Findings section, specifically in the Auditors Notes Summary in the table. This portion of the table will be redacted from the public posting version of this report.

Audit Process

The compliance audit process steps are detailed in the NERC CMEP. The NERC CMEP generally conforms to the United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

Objectives

All registered entities are subject to audit for compliance with all reliability standards applicable to the functions for which the registered entity is registered.¹ The audit objectives are:

¹ North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

- Independently review Hingham Municipal Lighting Plant compliance with the requirements of the reliability standards that are applicable to HMLP based on the HMLP registered functions.
- Validate compliance with applicable reliability standards from the NERC 2009 Implementation Plan list of actively monitored standards.
- Validate evidence of self-reported violations and previous self-certifications, confirm compliance with other requirements of the reliability standard, and review the status of associated mitigation plans.
- Document the Hingham Municipal Lighting Plant compliance culture.

Scope

The audit included all standards identified in the June 30, 2009 audit letter. The audit was a regularly scheduled audit and no self reported violations or compliance investigations were involved in the audit. The audit was performed by NPCC to demonstrate compliance within the NPCC footprint.

Confidentiality and Conflict of Interest

The audited entity was informed in advance of the audit that the independent contractors executed confidentiality agreements and code of conduct documentation was in place for the NERC representative and regional entity staff. Work history and conflict of interest forms submitted by each audit team member are on file in the NPCC corporate offices. The audited entity was given an opportunity to object to an audit team member on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with the audit team member's impartial performance of duties. The audited entity accepted the audit team member with no objections.

Off-site Audit

HMLP was provided with a pre-audit request letter identifying the standards and requirements subject to audit. The audit letter was sent to HMLP more than 60 days in advance of the scheduled audit. This was an onsite audit conducted every six years or as determined to be necessary by the region. HMLP had not self reported any violations.

In all cases, the auditors requested interviews with HMLP employees representing subject matter expertise regarding all of the registered functions of HMLP. These interviews resulted in data requests that in conjunction with the submitted evidence would provide the auditor with a basis for professional judgment when validating compliance with reliability standards.

Methodology

The auditors prepared reliability standards auditor worksheets (RSAWs) to evaluate each standard. The RSAW's are used to ensure consistency and to document evidence of compliance

or non-compliance with the standards. All relevant documents are considered and to the extent they form portion of the audit trail are referenced in the RSAW's.

Audit Overview

The audit overview was provided to HMLP via conference call on September 8, 2009, between Garth Arnott of NPCC and John Tzimirangas and Paul Heanue of HMLP Brian Evans-Mongeon, Steve DiSalvo and Jill Loewer of Utility Services LLC. The audit leader member reviewed his career and noted they had signed confidentially agreements. A brief explanation of the audit process was given and the timelines were discussed. HMLP was given an opportunity to reject the auditors but accepted the auditors and their credentials for this audit.

Audit

Garth Arnott as the audit lead performed the audit off site. Prior to calls to HMLP, the auditor developed a list of questions for HMLP and provided the questions via email. HMLP then took the time necessary to develop the answer and submitted them by email to the auditor.

Exit Briefing

The exit briefing was conducted by conference call on September 21, 2009 between Garth Arnott of NPCC and John Tzimirangas and Paul Heanue of HMLP Brian Evans-Mongeon, Steve DiSalvo and Jill Loewer of Utility Services LLC; NPCC staff reviewed the audit process and summarized the findings of the audit. The results of the audit were, 8 standards and 13 requirements audited for the functions HMLP is registered, were found to be compliant and 3 standards and 5 requirements was judged to be non applicable. HMLP was given an opportunity to question the audit findings and provide comment on the audit. HMLP said they thought the process was very professional and although it had been a beneficial process.

Company Profile

The Hingham Municipal Lighting Plant (HMLP) is a municipal electric utility that serves the Town of Hingham and is located southeastern Massachusetts, also known as the South Shore; approximately 15 miles south east of Boston. The Town of Hingham is surrounded by Braintree and Weymouth to the North, Hanover and Marshfield to the South; and Rockland to the West. HMLP serves 11,000 residential and commercial customers with a June 10, 2008 system peak of 50.11 MW at 1500 and annual sales of approximately 200,000,000 kWh's. The utility resides entirely within the ISO-New England control area. HMLP is a separate entity in the Town of Hingham. The governing body is a three person elected Board of Commissioners. The General Manager reports directly to the Board of Commissioners and they are responsible for policy and procedures for HMLP. The organization consists of 30 full-time employees.

HMLP is interconnected to the NSTAR Electric transmission system in Weymouth near the East Weymouth Substation. HMLP has a 115 kV/13.8 kV substation, Hobart Street, which is connecting to the 478-503 and 478-508 NSTAR transmission lines. The Hobart Street station has a three transformer (26/32/44 MVA rating), 115 kV to 13.8 kV configuration. Within the system, HMLP utilizes an operating voltage of 13.8kV. The entire distribution system in Hingham is 13.8 kV, there is no low voltage. HMLP owns 2.0 miles of 115 kV transmission lines, 169 miles of overhead and 76 miles of underground distribution circuits all at 13.8 kV.

HMLP is a market participant with ISO- New England; who is registered as the local Balancing Authority, Reliability Coordinator, Transmission Operator, and has oversight on the local control area. NSTAR Electric is the Transmission Operator to whom HMLP is directly interconnected with. HMLP does not own or operate any generation. HMLP is registered with NERC as both a Distribution Provider and a Load Serving Entity.

Audit Specifics

The compliance audit was conducted on September 5 to September 21, 2009 at the auditor's offices.

NPCC Audit Team Role	Name	Title	Company
Regional staff	Sal Buffamante	Manager Compliance	NPCC-Compliance Audit Program
Lead Auditor	Garth Arnott	Contracted Consultant	NPCC-Compliance Audit Program

Hingham Municipal Lighting Plant

Title	Organization
General Manager	HMLP
Assistant General Manager	HMLP
Consultant	Utility Services LLC
Consultant	Utility Services LLC
Consultant	Utility Services LLC

Audit Results

HMLP provided electronic files and emails containing data used to demonstrate their compliance with the standards identified in the audit letter from NPCC. When the auditor had additional questions conference calls were used to request additional documentation until the auditors were

convinced that the standards and requirements had been met and HMLP had demonstrated compliance.

After reviewing all the data HMLP was judged to be compliant with 8 standards and 13 requirements and 3 standards and 5 requirements were judged to be non applicable.

Findings

The following table details the summarized auditor notes relating to evidence reviewed for compliance with the reliability standards listed in the NERC 2009 Implementation Plan. This table can also include details summarizing auditor notes relating to evidence reviewed for reliability standard requirements for self-reported violations, ongoing mitigation plans, and other discussions.

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Reliability Standard	Requirement	Finding
CIP-001-1	R1	Compliant
CIP-001-1	R2	Compliant
CIP-001-1	R3	Compliant
CIP-001-1	R4	Compliant
EOP-002-2	R9	Compliant
IRO-001-1	R8	Compliant
IRO-004-1	R4	Compliant
IRO-005-1	R13	Compliant
PRC-004-1	R1	N/A
PRC-004-1	R3	N/A
PRC-005-1	R1	N/A
PRC-005-1	R2	N/A
PRC-008-0	R1	Compliant
PRC-008-0	R2	Compliant
PRC-017-0	R1	N/A
TOP-001-1	R4	Compliant
TOP-002-2	R3	Compliant
TOP-002-2	R18	Compliant

Compliance Culture

The audit team reviewed Hingham Municipal Lighting Plant compliance culture; the regional entity compliance staff may review additional aspects of HMLP compliance culture. During all contact, HMLP staff was professional in their approach to compliance and understood the importance of the compliance and its role in maintaining reliability.