



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

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

## Bangor Hydro Electric Company (BHEC) NCR07013

December 09 to December 22, 2008

December 22, 2008

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## Executive Summary

This final compliance audit report is the public version. Confidential information (including privileged and critical energy infrastructure information) has been redacted from this report. The full final compliance audit report was submitted to the audited entity and NERC.

The offsite compliance audit of Bangor Hydro Electric Company (BHEC) was conducted between December 9th and December 22nd, 2008. The audit was completed using data submitted by BHEC and telephone and email data exchanges. The audit team evaluated BHEC's compliance with nineteen reliability standards identified in the NERC 2008 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each reliability standard. Of the nineteen standards audited, six were deemed to be not applicable to BHEC; of the thirteen remaining standards, all were judged to be compliant.

BHEC provided subject matter experts for each standard resulting in a more clear understanding of the BHEC business model and accelerated the audit process. The evidence provided to demonstrate compliance required requests for additional information and evidence. The BHEC audit team responded to all requests for additional information in a timely and clear manner; the presentation and content of the original and follow up information was professionally done. The auditor would like to acknowledge the BHEC team for their support throughout the audit by providing quality evidence and by providing a quick turnaround in responding to the questions and requests for further information.

## Audit Process

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

- Independently review BHEC's compliance with the requirements of the reliability standards that are applicable to BHEC based on BHEC's registered functions.
- Validate compliance with applicable reliability standards from the NERC 2008 Implementation Plan list of actively monitored standards.

The audit was completed using data submitted by BHEC and telephone and email data exchanges. The audit team evaluated BHEC's compliance with nineteen reliability

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<sup>1</sup> North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

standards identified in the NERC 2008 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each reliability standard.

Of the nineteen standards audited (six of the standards were deemed to be not applicable to BHEC), thirteen were judged to be compliant based on the data submitted in response to the audit request and further data provided as a result of follow up questions.

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.<sup>2</sup> The audit objectives are:

- Independently review BHEC's compliance with the requirements of the reliability standards that are applicable to BHEC based on the registered functions.
- Validate compliance with applicable reliability standards from the NERC 2008 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 BHEC's compliance culture.

### ***Scope***

The audit included all standards identified in the September 29th, 2008 audit letter for the previous year. The audit was a regularly scheduled audit and no self reported violations or compliance investigations were involved.

### ***Confidentiality and Conflict of Interest***

Confidentiality agreements executed by the independent contractors and code of conduct documentation for the NERC representative and regional entity staffs were provided to the audited entity in advance of the audit. 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

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<sup>2</sup> North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

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 participants with no objections.

### ***Off-site Audit***

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

The audit team leader requested that BHEC employees representing subject matter expertise regarding all of registered functions of BHEC be made available for interviews should the need arise. These interviews in conjunction with evidence provide the audit team with a basis for professional judgment when validating compliance with reliability standards.

Generally accepted government auditing standard 3.39 places responsibility on each auditor and audit organization to exercise professional judgment in planning and performing an audit or attestation engagement, it does not imply unlimited responsibility, nor does it imply infallibility on the part of either the individual auditor or the audit organization. Absolute assurance is not attainable because of the nature of evidence and the characteristics of fraud. Professional judgment does not mean eliminating all possible limitations or weaknesses associated with a specific audit, but rather identifying, considering, minimizing, mitigating, and explaining them.

### ***Methodology***

The audit team 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 included in the RSAW's.

### ***Audit Overview***

The audit overview was conducted at 10:00 AM December 12th, 2008 via conference call. Attending the conference call was NPCC Staff and representatives of BHEC. The auditor reviewed his career and noted that he had signed a confidentially agreement. A brief explanation of the audit process was given and the timelines were discussed. BHEC was given the opportunity to reject the auditors should they feel that there was a possible conflict of interest or they thought the auditors would not be impartial. BHEC accepted the audit team.

### ***Audit***

The audit was performed off site by NPCC Staff. The auditor developed a list of questions for BHEC to answer; the list was then sent to BHEC for their review, after which follow-up conference calls were arranged in order to jointly review the list of questions. BHEC then took the time necessary to develop the answers and submitted them by email and via teleconference calls to the auditor.

### ***Exit Briefing***

The exit briefing was conducted via conference call at 10:00 AM 12/22/2008. Participating on the teleconference was representatives of NPCC Staff and BHEC. NPCC staff reviewed the audit process and summarized the findings of the audit. After reviewing all the data, BHEC was judged to be compliant with thirteen of the nineteen standards with the remaining six standards deemed to be not applicable to BHEC.

BHEC was presented an opportunity to question the audit findings and provide comment on the audit. BHEC representatives were pleased with the audit process and that it had proceeded smoothly; they also stated that it was a learning process which would enhance their future operation and compliance endeavors

## **Bangor Hydro Electric Company Profile**

Bangor Hydro Electric Company (BHEC) is an investor owned electric utility serving a population of roughly 192,000 persons (116,860 customers) living in Penobscot, Hancock and Washington counties, State of Maine. The Company's service territory is "L" shaped and comprised of 5,757 square miles of land located along the Penobscot River from Bucksport to Millinocket and eastward from Deer Isle/Stonington along the coast to Eastport and Lubec. BHEC was purchased by Nova Scotia Power, Incorporated (NSPI) in 2001 and a year later the holding company named Emera, Incorporated (a Canadian Corporation) was formed. Besides NSPI and BHEC, Emera has a 19% interest in St. Lucia Electricity Services Limited, a 50% joint venture interest in Bear Swamp (a pumped hydro facility in Massachusetts), a 12.9% interest in Maritimes & Northeast Pipeline and Brunswick Pipelines and a 25% stake in Grand Bahamas Power Ltd. They also own Emera Energy Services (an energy management company) and Emera Utility Services (the largest utility services contractor in Atlantic Canada).

The Company's transmission system consists of 826.7 circuit miles, of which 84.4 miles operate at 345 kilovolts (kV), 196.1 miles at 115 kV, 280.7 miles at 46 kV and 265.5 miles at a voltage level of 34.5 kV. BHEC's power system is connected synchronously to

the north and east with New Brunswick Power Corporation (a Canadian electric utility) at the voltage level of 345 kV and to the south and west with Central Maine Power Company (a Maine investor owned electric utility) at voltage levels of 345 and 115 kV. The Company's all-time system peak load occurred on July 27, 1999 at a level of 317.5 megawatts (MW). A little more than seven months later (March 1, 2000) State imposed restructuring of the electric utility industry in Maine required that BHEC divest itself of all generation assets, which it did through a competitive bid process. However, it retained diesel generator assets at its Medway, Young's Corner and Eastport substation facilities (totaling 20 MW) because of a lack of interest from the competitive marketplace during the divestiture bid process. BHEC can operate these diesel units for the purpose of enhancing the reliability of its local distribution power system but only with permission of ISO-New England (ISO-NE) and the Maine Local Control Center (i.e., Central Maine Power Company). The Company's Regional Reliability Coordinator is the Northeast Power Coordinating Council (NPCC) with headquarters in New York City, New York. Under the umbrella of the NPCC is the ISO-NE, who functions as the Reliability Coordinator, Balancing Authority and Transmission Operator for electric utilities located in the New England States, which includes BHEC. ISO-NE's realm of control is divided up into several regional control areas. BHEC's power system is part of the Maine Local Control Area (MLCC), which is operated by Central Maine Power Company. In general terms, ISO-NE is responsible for all matters pertaining to the coordinated operation of New England Area transmission facilities rated at 69 kV and above and Resources committed by Market Participants to central dispatch. As the transmission operator for the MLCC, CMP operates the Maine Area transmission system (69 kV and above) at the direction of ISO-NE and the operating procedures developed by this organization. Bangor Hydro-Electric Company is registered with the North American Electric Reliability Corporation (NERC) as the functional entities of Transmission Owner (TO), Transmission Service Provider (TSP), Transmission Planner (TP), and Distribution Provider (DP).

### ***Audit Specifics***

The compliance audit was conducted from December 9th to December 22nd, 2008 at the offices of the NPCC Audit Staff.

<b>Audit Team Role</b>	<b>Title</b>	<b>Company</b>
Lead	Contracted Consultant	NPCC-Compliance Audit Program
Member	Manager Compliance Audit Program	NPCC-Compliance Audit Program

**BHEC**

Title	Organization
Planning Engineer II	BHEC
Manager, Assets & Engineering Services	BHEC

## Audit Results

BHEC provided a CD 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 they were convinced that the standards and requirements had been met and BHEC had demonstrated compliance.

### ***Findings***

Reliability Standard	Requirement	Finding
EOP-002-2	R9	Not Applicable
FAC-003-1	R1	Compliant
	R2	Compliant
	R3	Compliant
FAC-008-1	R1	Compliant
	R2	Not Applicable
	R3	Not Applicable
FAC-009-1	R1	Compliant
	R2	Compliant
IRO-001-1	R8	Not Applicable
IRO-004-1	R4	Compliant
	R7	Not Applicable
PRC-004-1	R1	Compliant
	R3	Compliant
PRC-005-1	R1	Compliant
	R2	Compliant
PRC-008-0	R1	Compliant
	R2	Compliant

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<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
PRC-010-0	R1	Not Applicable
	R2	Not Applicable
PRC-011-0	R1	Not Applicable
	R2	Not Applicable
PRC-016	R1	Compliant
	R2	Compliant
	R3	Compliant
PRC-017	R1	Compliant
	R2	Compliant
PRC-021	R1	Not Applicable
	R2	Not Applicable
TOP-002-2	R3	Not Applicable
	R12	Not Applicable
TPL—001-0	R1	Compliant
	R2	Not Applicable
	R3	Compliant
TPL—002-0	R1	Compliant
	R2	Not Applicable
	R3	Compliant
TPL—003-0	R1	Compliant
	R2	Compliant
	R3	Compliant
TPL—004-0	R1	Compliant
	R2	Not Applicable

### ***Compliance Culture***

The audit team reviewed the BHEC compliance culture. The regional entity compliance staff may review additional aspects of the BHEC compliance culture. During all contacts with the BHEC staff they acted professionally in their approach to compliance and understood the importance of the compliance and its role in maintaining reliability.