

# **Compliance Audit Report Public Version**

**Brownsville Public Utility Board Calpine**

**NERC ID # 04020**

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

Audit Date: February 2 - 4, 2010  
Audit Location: Texas Regional Entity Office, Austin, TX  
Report Date: December 2, 2011  
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## 1.0 EXECUTIVE SUMMARY

The Table Top (Off-Site) compliance audit of Brownsville Public Utility Board Calpine (BPUB-Calpine) was conducted on February 2 - 4, 2010. The NERC Reliability Standards that are being actively monitored for 2010 were reviewed based on BPUB-Calpine's registration as a GO.

The audit team reviewed the NERC Reliability Standards for the period of time identified in the scope of the audit. The audit team consisted of four representatives from Texas Regional Entity (now Texas Reliability Entity, Texas RE). The audit team reviewed the evidence and documentation provided by BPUB-Calpine and conducted interviews with BPUB-Calpine's personnel to assess compliance with standards applicable to BPUB-Calpine at this time.

Eight (8) reliability standards were included in the scope of this audit. They contained sixteen (16) requirements applicable to the GO function. Based on the information and documentation provided by BPUB-Calpine, the audit team found BPUB-Calpine to be compliant with thirteen (13) applicable requirements. The audit team determined that two (2) requirements were not applicable to BPUB-Calpine.

The audit team identified one (1) Possible Alleged Violation (PV) during the audit. These audit results are further explained in the Audit Results Findings section of this report which includes detailed information of the audit team's findings of applicability and compliance for the NERC Reliability Standards within the scope of the compliance audit. This audit report includes information regarding the Possible Alleged Violation. This information will be used to help determine the severity level of sanctions and penalties. The Possible Alleged Violation will be processed through the Texas RE's NERC Compliance Monitoring and Enforcement Program (CMEP). Further actions related to the Possible Alleged Violation will originate from the CMEP process.

The NERC Notice of Penalty (NOP) is posted on the NERC website at the following URL:  
[http://www.nerc.com/filez/enforcement/FinalFiled\\_ACP\\_NOP\\_20110630.pdf](http://www.nerc.com/filez/enforcement/FinalFiled_ACP_NOP_20110630.pdf)

There were no ongoing or recently completed mitigation plans for the NERC registered functions included in the scope of this audit and therefore none were reviewed by the audit team.

## 2.0 AUDIT PROCESS

The compliance audit process is detailed in the NERC Compliance Monitoring and Enforcement Program (CMEP), available at [www.nerc.com](http://www.nerc.com). The NERC CMEP generally conforms to the United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

### 2.1 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>1</sup> The audit objectives are:

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

- Independently review BPUB-Calpine's compliance with the requirements of the reliability standards that are applicable to BPUB-Calpine based on the BPUB-Calpine registered functions included in the scope of this audit.
- Validate compliance with applicable reliability standards from the NERC 2010 CMEP 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 standards, and review the status of associated mitigation plans.
- Document BPUB-Calpine's compliance culture.

## 2.2 Scope

The scope of this compliance audit is inclusive of all requirements of the NERC Reliability Standards that are being actively monitored in 2010 and any others that may be identified by the audit team at the time of the audit applicable to a GO. The audit was performed by four members of Texas RE.

There were no ongoing or recently completed mitigation plans for the NERC registered functions included in the scope of this audit that had not been previously validated by Texas RE's compliance staff for Brownsville Public Utility Board Calpine and therefore none were reviewed by the audit team.

Note: For the 2010 compliance program, the monitoring period for the compliance audit will generally be the last six years based the BPUB-Calpine's registration as a GO, or periods specified in individual reliability standards.

At the time of the audit, BPUB-Calpine was registered as a GO. The audit team evaluated BPUB-Calpine for compliance during the specific period of June 28, 2007 (the registration date) to February 2, 2010.

### 2.2.1 Confidentiality and Conflict of Interest

Confidentiality agreements and code of conduct documentation for the regional entity staff were provided to BPUB-Calpine prior to the audit. Work history and conflict of interest forms submitted for each audit team member were provided to BPUB-Calpine. BPUB-Calpine 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. BPUB-Calpine had not submitted any objections by the stated fifteen day objection due date and accepted the audit team member participants with no objections. There have been no denials of or access limitations placed upon this audit team by BPUB-Calpine.

## 2.3 Methodology

Once an audit date was set by Texas RE, BPUB-Calpine was sent a set of Reliability Standard Audit Work Sheets (RSAWs) for the list of actively monitored NERC Standards.

The audit team reviewed the completed RSAWs, information, data, and evidence submitted by BPUB-Calpine and assessed compliance with requirements of the applicable reliability standards. Initial submittal of information and data were sent to Texas RE on or before the scheduled due date for the submittal. Additional information relevant to the audit could be requested by Texas RE and submitted by BPUB-Calpine until the last day of the review at the audit site.

During the audit, Texas RE reviewed the responses to the RSAWs and auditor questions with BPUB-Calpine's management and supervisors. The audit team reviewed documentation provided by BPUB-Calpine that included data, information and evidence submitted in the form of policies, procedures, emails, logs, studies, data sheets, etc. which were validated, substantiated and cross checked for accuracy as appropriate. Requirements which required a sampling to be conducted were developed based upon the significance of the sampling to the reliability of the Bulk Electrical System (BES).

The Texas RE audit team interviewed operations, IT, communications, and planning personnel as necessary to clarify or stack the evidence provided by BPUB-Calpine and verify documentation.

Findings were based on the audit team's knowledge of the BES, the NERC Reliability Standards and their professional judgment. All findings were developed based upon the consensus of the audit team.

There were no ongoing or recently completed mitigation plans for the NERC registered functions included in the scope of this audit that had not been previously validated by Texas RE's compliance staff for Brownsville Public Utility Board Calpine and therefore none were reviewed by the audit team.

The audit team conducted an exit briefing immediately following the audit with BPUB-Calpine. The audit team verbally shared its preliminary results with BPUB-Calpine's management.

## **2.4 Company Profile**

The Brownsville Public Utilities Board (PUB) was formed by the City of Brownsville in 1960 to provide electrical, water, and wastewater services to its customers in the southernmost part of Texas, on the border with the Mexican state of Tamaulipas. Pursuant to the City's Charter, management, operation, and control of the City's combined water, wastewater and electric utilities systems were delegated to the Brownsville PUB. The Board of Directors is comprised of six members: five appointed by the City Commission for four-year terms and the City's Mayor serving as the sixth member (ex-officio). Currently, Brownsville PUB serves approximately 50,000 customers with water, sewer and electric utilities.

The electric system serves a growing customer base of approximately 50,000 customers and serves a peak load of 270 mega-watts (MW). Currently, the electric system's generation resources consists of the gas and oil-fired Silas Ray Power Production Facilities (total capability of 124 MW); an 18 percent interest in the coal-fired Oklaunion Unit 1 (122 MW capacity); a 21 percent interest in the natural gas-fired Hidalgo Energy Center (105 MW capacity); energy purchases through an energy power interchange agreement; and distributed generation of 11 MW. Fuel and transportation contracts with a variety of suppliers are in place, limiting the Brownsville PUB's exposure to the volatile fuel commodity markets. At this time, these resources are sufficient to cover peak demand.

Brownsville PUB owns 48 miles of transmission lines (138 kilovolt (kV)) and 679 miles of distribution lines (12.47 kV) to serve its certificated retail service area of approximately 133 square miles in Cameron County, within and outside the City limits. Small portions of the service area of two other utilities, American Electric Power Texas Central and Magic Valley Electric Cooperative, Inc., overlap with the Brownsville PUB service territory (totaling about 11.3 square miles). A total of 14 substations are utilized in the provision of electric service.

At the time of the audit and throughout the audit period, BPUB-Calpine was registered as a GO under NCR #04020 with regard to BPUB ownership of power generated by the Calpine Hidalgo facility. This facility is 100% owned and operated by Calpine. This audit pertained solely to the NCR #04020 GO registration. Most of the audit evidence provided by BPUB originated at Calpine.

## 2.5 Audit Specifics

Audit Date: February 2 - 4, 2010  
 Audit Location: Texas Regional Entity Office, Austin, TX

### Texas RE Audit Team:

Company/Title	Audit Team Role
Texas RE/Compliance Engineer II	Audit Team Leader
Texas RE/Compliance Engineer III	Auditor
Texas RE/Compliance Engineer III	Auditor
Texas RE/Sr. Compliance Engineer	Auditor

### BPUB-Calpine's Audit Participants:

Company	Title
BPUB-Calpine	Fuel & Energy Supply/SCADA Manager
BPUB-Calpine	Fuel and Energy Coordinator
BPUB-Calpine	Graduate Engineer
BPUB-Calpine	Fuel and Energy Specialist
BPUB-Calpine	System Programmer II
BPUB-Calpine	Operations Power Plant Supervisor
BPUB-Calpine	Power Plant Manager
BPUB-Calpine	Energy Control Center Manager
BPUB-Calpine	Energy System Operator
BPUB-Calpine	Lead Energy System Operator
Calpine	Director of Commercial NERC Compliance
Calpine	Director of NERC Reliability Compliance
Calpine	General Manager of Hidalgo Energy
Calpine	Operations Manager of Hidalgo Energy
Calpine	IC&E Technician of Hidalgo Energy

### 3.0 AUDIT RESULTS

#### 3.1 Audit Findings

The Compliance Audit Team found that BPUB-Calpine was not compliant with the following standards and requirements:

<b>Reliability Standard &amp; Requirement</b>
PRC-005-1 R1

BPUB-Calpine was found compliant with all other requirements and standards that were included in the scope of this audit.

The following table is a summary of the auditor's findings for those NERC standards reviewed during the audit:

<b>Reliability Standard</b>	<b>Requirement</b>	<b>Finding</b>
FAC-002-0	R1.	Compliant
FAC-002-0	R2.	Compliant
FAC-008-1	R1.	Compliant
FAC-008-1	R2.	Compliant
FAC-008-1	R3.	No Findings
FAC-009-1	R1.	No Findings
FAC-009-1	R2.	No Findings
IRO-004-1	R1.	NA
IRO-004-1	R2.	NA
IRO-004-1	R3.	NA
IRO-004-1	R4.	No Findings
IRO-004-1	R5.	NA
IRO-004-1	R6.	NA
IRO-004-1	R7.	NA
PRC-004-1	R1.	NA
PRC-004-1	R2.	No Findings
PRC-004-1	R3.	No Findings
PRC-005-1	R1.	PV
PRC-005-1	R2.	No Findings
PRC-017-0	R1.	NA
PRC-017-0	R2.	NA
VAR-002-1.1a	R1.	NA
VAR-002-1.1a	R2.	NA
VAR-002-1.1a	R3.	NA
VAR-002-1.1a	R4.	No Findings

Reliability Standard	Requirement	Finding
VAR-002-1.1a	R5.	No Findings

### 3.2 Mitigation Plan Findings

There were no ongoing or recently completed mitigation plans for the NERC registered functions included in the scope of this audit that had not been previously validated by Texas RE's compliance staff and therefore none were reviewed by the audit team.

### 3.3 Conclusion

The compliance audit team found that BPUB-Calpine was not compliant with the following standard and requirement:

Reliability Standard & Requirement
PRC-005-1 R1

The Possible Alleged Violation along with this compliance report will be provided to Texas RE's enforcement staff for processing through the NERC CMEP. Any further actions related to possible alleged violations will be through that process.

The audit team had no findings of non-compliance for any other requirements and standards that were included in the scope of this audit.

There were no ongoing or recently completed mitigation plans and therefore none were reviewed by the audit team.

### 3.4. Compliance Culture

The scope of the BPUB Compliance Program Policy is reliability of the electric systems and compliance with applicable state and federal regulations.

BPUB began its Compliance Program over two years ago utilizing a team assigned the task of interpreting, structuring and allocating roles and responsibilities based on the initial standards issued by NERC. As other departments were drawn into the program, a Compliance Committee was established to maintain open lines of communication between departments.

BPUB maintains a Compliance Program Policy, a Compliance Committee Charter, a training program, and a Compliance Program with functional reporting responsibility affecting key members of management and subject matter experts. Internal auditing is under development.

BPUB utilized Calpine subject matter experts to provide and explain the compliance evidence for this audit, since Calpine owns and operates the Hidalgo generating facility and BPUB only owns power generated by the facility. No evidence was provided to specifically explain how the BPUB Compliance Committee oversees compliance to NERC Standards as implemented by Calpine for the Hidalgo facility.