



# **Compliance Audit Report Public Version**

**City of Ames Electric Services (AMES)**  
NERC ID# NCR00972

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

**Date of Audit: February 1-4, 2010**

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## **Executive Summary**

A compliance audit of the City of Ames Electric Services AMES, NERC ID # - NCR00972 was conducted from February 1-4, 2010. At the time of the audit, AMES was registered for the Distribution Provider (DP) and Load Serving Entity (LSE) functions.

The audit team evaluated AMES for compliance with 22 requirements in the 2010 NERC Compliance Monitoring and Enforcement Program (CMEP). The audit team reviewed the NERC Reliability Standards for the period of June 18, 2007 to February 4, 2010. AMES submitted information and documentation for the audit team's evaluation of compliance with requirements. The audit team reviewed and evaluated all information provided by AMES to assess compliance with standards applicable to AMES at this time.

Based on the information and documentation provided by AMES, the audit team found AMES to be compliant with 22 applicable requirements.

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.

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

## **Audit Process**

The compliance audit process steps are detailed in the MRO CMEP. The MRO 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 an audit for compliance with all Reliability Standards applicable to the functions for which the Registered Entity is registered.\* The audit objectives are to:

- Review compliance with the requirements of Reliability Standards that are applicable to AMES, based on the functions that AMES is registered to perform;
- Validate compliance with applicable Reliability Standards from the NERC 2010 Implementation Plan list of actively monitored standards, and additional NERC Reliability Standards selected by MRO;
- Validate compliance with applicable Regional Standards from the MRO 2010 Implementation Plan list of actively monitored standards;
- Validate evidence of self-reported violations and previous self-certifications;
- Observe and document AMES's compliance program and culture;
- Review the status of mitigation plans.

## ***Scope***

The scope of the compliance audit included the NERC Reliability Standards from the MRO 2010 Implementation Plan. In addition, this audit included any self-reports, self-certifications, outstanding mitigation plans or remedial action directives which have been completed or pending in the year of the compliance audit.

At the time of the audit, AMES was registered for the functions DP and LSE. The audit team evaluated AMES for compliance during the period of June 18, 2007 to February 4, 2010.

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\* North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

## **Confidentiality and Conflict of Interest**

Confidentiality and Conflict of Interest of the audit team are governed under the MRO Delegation Agreement with NERC, and Section 1500 of the NERC Rules of Procedure. AMES was informed of MRO's obligations and responsibilities under the agreement and procedures. The work history for each audit team member was provided to AMES. AMES was given an opportunity to object to an audit team member's participation on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with an audit team member's impartial performance of duties. AMES had not submitted any objections by the stated fifteen day objection due date and accepted the audit team member participants without objection. There have been no denials of or access limitations placed upon this audit team by AMES.

## ***Methodology***

The audit team reviewed the information, data, and evidence submitted by AMES and assessed compliance with requirements of the applicable reliability standards. Submittal of information and data were sent to MRO fourteen days before the scheduled date of the entity review. Additional information relevant to the audit could be submitted until the last day of the review at the audit site. After that date, only data or information which was relevant to the content of the report or its finding can be submitted upon agreement by the audit team lead.

The audit team requested and received additional information and sought clarification from subject matter experts during the audit.

The audit team reviewed documentation provided by AMES. 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).

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

### ***Company Profile***

The City of Ames' Electric Services Department (aka "AMES") is a municipal electric utility owned by the City of Ames. AMES operates and maintains generation, transmission and distribution facilities in order to provide electric service to the citizens and businesses of the City of Ames as well as small adjacent portions of Story County which lie outside the City limits of Ames, Iowa. As with the other departments within the City of Ames, AMES operates under a Mayor-Council form of government with a City Manager. The Council sets policies and the City Manager implements them. The City Manager is responsible for the City's daily operation and is assisted by his department directors; the Director of Electric Services provides oversight of the Electric Services Department.

AMES serves approximately 24,000 customers within a 20 square mile service territory. There are 271 circuit miles of 13.8 kV distribution line, 27 circuit miles of 69 kV transmission line, and 16 circuit miles of 161 kV transmission line. The 69 kV is connected to the MidAmerican Energy Company at the John Deere Substation. The 161 kV system is currently comprised of a single, radial connection to Central Iowa Power Cooperative (CIPCO) at its Boone Junction Substation. A second 161kV interconnection is planned at MidAmerican Energy Company's NE Ankeny 161kV substation; this interconnection is planned for completion by June of 2012, or before.

AMES is a summer peaking utility. In addition to retail load, it also provides supplemental energy to Iowa State University. A combined historical hourly system peak of 157 MW occurred on 2007 August 28 hour ending 17:00. Ames' historical peak, excluding the University's load, is 126 MW and occurred on 2006 July 31 hour ending 18:00. The combined nameplate generating capacity is 198 MW. AMES capacity is composed of two coal fired steam turbine-generators providing 98 MW and two diesel fueled gas turbine-generators providing 54 MW. The University contributes 46 MW of coal fired steam turbine generation. AMES has contracted with NextEra LLC for 36 MW nameplate capacity of wind generation, which is not included in the system capacity.

### ***Audit Participants***

The following is a listing of all personnel from the Audit Team and AMES who were present during the meetings or interviews.

#### **Audit Team Participants**

<b>Title</b>	<b>Entity</b>
Compliance Audit Manager	MRO
Compliance Principal	MRO
Sr. Engineer	MRO

#### **AMES Audit Participants**

<b>Title</b>	<b>Entity</b>
Electric Engineering Manager	AMES
Utility Engineer	AMES
Power Plant Ops Supervisor	AMES
Electrical Engineer	AMES
Director	AMES

### **Audit Results**

The audit team evaluated AMES for compliance with 22 requirements in the 2010 NERC Compliance Monitoring and Enforcement Program (CMEP). The audit reviewed NERC Reliability Standards for the period of June 18, 2007 through February 4, 2010. AMES submitted information and documentation for the audit team's evaluation of compliance with requirements. The audit team reviewed and evaluated all information provided by AMES to assess compliance with standards applicable to AMES at this time.

Based on the information and documentation provided by AMES, the audit team found AMES to be compliant with 22 applicable requirements.

## ***Findings***

The following table details the findings for compliance for the scope identified for this audit.

Conducted On: **Feb 04, 2010**

Entity: **City Of Ames Electric Services (AMES)**

Address: **502 Carroll Avenue, Ames, Iowa 50010, United States**

NERC Compliance Registry ID: **NCR00972**

<b>Standard Requirement</b>	<b>Compliant</b>
CIP-001-1 R1	Yes
CIP-001-1 R2	Yes
CIP-001-1 R3	Yes
CIP-001-1 R4	Yes
EOP-002-2.1 R9	Yes
IRO-001-1.1 R8	Yes
IRO-004-1 R4	Yes
IRO-005-2 R13	Yes
NUC-001-1 R3	Yes
NUC-001-1 R4	Yes
NUC-001-1 R6	Yes
NUC-001-1 R8	Yes
NUC-001-1 R9	Yes
PRC-004-1 R1	Yes
PRC-005-1 R1	Yes
PRC-005-1 R2	Yes
PRC-008-0 R1	Yes
PRC-008-0 R2	Yes
PRC-017-0 R1	Yes
TOP-001-1 R4	Yes
TOP-002-2 R18	Yes
TOP-002-2 R3	Yes

## ***Compliance Culture***

AMES compliance culture was not reviewed by the audit team.

Additional information pertaining to the compliance culture of AMES can be found in the Internal Compliance Survey.