

Agenda

Compliance Committee Meeting

November 7, 2022 | 1:00-2:00 p.m. Eastern

Virtual Meeting

Attendee WebEx Link: [Join Meeting](#)

Introduction and Chair's Remarks

NERC Antitrust Compliance Guidelines*

Agenda Items

Topics

1. **Minutes* – Approve**
 - a. February 9, 2022 Open Meeting
2. **2023 CMEP Implementation Plan* — Update**
3. **ERO Enterprise Themes and Best Practices for Sustaining Accurate Facility Ratings* - Update**
4. **Other Matters and Adjournment**

*Background materials included.

Antitrust Compliance Guidelines

I. General

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. Prohibited Activities

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

- Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

III. Activities That Are Permitted

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation, Bylaws, and Rules of Procedure are followed in conducting NERC business.

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

DRAFT Minutes

Compliance Committee Meeting

February 9, 2022 | 12:30-1:30 p.m. Eastern

Virtual Meeting

Agenda Item 1a

Mr. Robin E. Manning, Chair, called to order the duly noticed meeting of the Compliance Committee (CC or Committee) of the Board of Trustees (Board) of the North American Electric Reliability Corporation (NERC) on February 9, 2022, at approximately 12:30 p.m. Eastern, and a quorum was declared present.

Present at the meeting were:

Committee Members

Robin E. Manning, Chair

Jane Allen

Kenneth W. DeFontes, Jr., ex officio

George S. Hawkins

Susan Kelly

Roy Thilly

Board of Trustees Members

Robert G. Clarke

Suzanne Keenan

Jim Piro

James B. Robb, President and Chief Executive Officer

Colleen Sidford

NERC Staff

Tina Buzzard, Assistant Corporate Secretary

Manny Cancel, Senior Vice President and CEO of the E-ISAC

Howard Gugel, Vice President, Engineering and Standards

Kelly Hanson, Senior Vice President, Chief Administrative Officer

Stan Hoptroff, Vice President, Business Technology

Mark Lauby, Senior Vice President and Chief Engineer

James McGrane, Senior Counsel

Sônia Mendonça, Senior Vice President, General Counsel, and Corporate Secretary

Bryan Preston, Vice President, People and Culture, Executives

Steven Noess, Director, Regulatory Programs

Janet Sena, Senior Vice President, External Affairs

Andy Sharp, Vice President and Chief Financial Officer

Teri Stasko, Assistant General Counsel and Director of Enforcement

Mechelle Thomas, Vice President, Compliance

Introduction and Chair's Remarks

Mr. Manning welcomed the members of the CC to the meeting.

NERC Antitrust Compliance Guidelines

Ms. Buzzard directed the participants' attention to the NERC Antitrust Compliance Guidelines included in the advance agenda package and indicated that all questions regarding antitrust compliance or related matters should be directed to Ms. Mendonça.

Minutes

Upon motion duly made and seconded, the Committee approved the minutes for the November 3, 2021, meeting as presented to the Committee.

Facility Ratings

Tim Ponseti, SERC Reliability Corporation, Vice President, Operations, introduced the update noting that the presentation is a continuation of the November 2021 ERO Enterprise call to action, and what that call to action means for registered entities and for the ERO Enterprise. Mr. Ponseti provided some examples of unintended breakdowns, showing the importance of Facility Ratings awareness, adequate asset and data management, and change management. Tom Galloway, Chief Executive Officer, North American Transmission Forum (NATF), shared an overview of the NATF's Facility Ratings practices, which are consistent with practices suggested by the ERO Enterprise. Steven Noess and Teri Stasko presented additional detail on the ERO Enterprise's next steps, which include continuing a risk-based approach to monitoring and enforcing Facility Ratings matters. David Ortiz, Federal Energy Regulatory Commission (FERC), Acting Director, Office of Electric Reliability, shared comments reflecting FERC staff's alignment with the ERO Enterprise's focus on accurate and sustainable Facility Ratings programs.

Compliance Guidance

Mr. Noess provided an overview of the Compliance Guidance Policy, which the Board approved in November 2015. Pursuant to that policy, there are two types of Compliance Guidance: (1) Implementation Guidance and (2) CMEP Practice Guides. Mr. Noess explained Implementation Guidance must be "endorsed" by the ERO Enterprise. He noted that there is a perception in industry that endorsement of Implementation Guidance is difficult and time consuming. Mr. Noess highlighted numerous resources available to aid the development of Implementation Guidance and planned outreach efforts to better understand and address industry concerns. He also noted that the ERO Enterprise has added an explanatory heading to all CMEP Practice Guides to better explain that they are created exclusively by ERO Enterprise Staff, intended for use by ERO Enterprise staff to support consistency, and posted publicly solely to provide transparency.

Compliance Monitoring and Enforcement Program Annual Report

Mr. McGrane presented on the ERO Enterprise 2021 accomplishments, including the roll out of Align and the Secure Evidence Locker and continued streamlining efforts. Mr. McGrane also presented on CMEP trends, noting the ERO Enterprise is taking steps to reduce the average age of inventory, the majority of noncompliance is mitigated within one year of reporting, and Facility Ratings Self-Reports have increased over the last few years.

Annual Review of Compliance Committee Mandate

Mr. Manning noted that, as part of the annual review of all Board committee mandates, the Committee and NERC management reviewed the current mandate and are not recommending any revisions at this time.

Adjournment

There being no further business, and upon motion duly made and seconded, the meeting was adjourned.

Submitted by,



Sônia Mendonça
Corporate Secretary

2023 Compliance Monitoring and Enforcement Program Implementation Plan

Action

Update

Background

The Electric Reliability Organization (ERO) Enterprise¹ Compliance Monitoring and Enforcement Program (CMEP) Implementation Plan (IP) is the annual operating plan used by the ERO Enterprise in performing CMEP responsibilities and duties. The ERO Enterprise executes CMEP activities in accordance with the NERC Rules of Procedure (ROP) (including Appendix 4C), the Regional Delegation Agreements, and other agreements with regulatory authorities in Canada and Mexico. The ROP requires development of an annual CMEP IP.²

The ERO Enterprise is pleased to release the 2023 CMEP IP describing the risks that will be priorities for the ERO Enterprise's CMEP activities in 2023. Collectively, NERC and the Regional Entities have worked collaboratively throughout the IP's development to evaluate reports of NERC committees (especially the Reliability Issues Steering Committee (RISC)), ERO Enterprise analysis of events, NERC reliability assessments, CMEP data to identify the existing and emerging risks to reliable and secure operations.

This strategic IP highlights the focus of our monitoring and enforcement efforts in 2023 on the risk elements identified within. The IP gives guidance to the employees of the ERO Enterprise involved with monitoring and enforcement, and through public posting informs the ongoing conversations with industry about the risks we all seek to mitigate. The risk elements described herein relate to the four risks designated "manage" and the four risk profiles, all identified in the 2021 RISC ERO Reliability Risk Priorities Report (RISC report).³ The risks designated "manage" in the RISC report: 1) Changing Resource Mix, 2) Cybersecurity Vulnerabilities, 3) Resource Adequacy and Performance, and 4) Critical Infrastructure Dependencies. In addition, the report focuses on the four risk profiles discussed in the RISC report: 1) Grid Transformation, 2) Security Risks, 3) Extreme Natural Events, and 4) Critical Infrastructure Interdependencies. While compliance with Reliability Standards is evaluated as part of continual monitoring, the main focus of a mature CMEP is on how the ERO Enterprise and industry proactively identify and mitigate risks to the BPS.

The IP represents the ERO Enterprise's high-level priorities for its CMEP activities. While the ERO Enterprise will decide how to monitor each registered entity based on its unique characteristics, registered entities should consider the risk elements and their associated

¹ The ERO Enterprise is comprised of NERC and the six Regional Entities, which collectively bring together their leadership, experience, judgment, skills, and supporting technologies to fulfill the ERO's statutory obligations to assure the reliability of the North American BPS.

² [NERC ROP](#), Appendix 4C Section 4.0 (Annual Implementation Plans).

³

https://www.nerc.com/comm/RISC/Documents/RISC%20ERO%20Priorities%20Report_Final_RISC_Approved_July_8_2021_Board_Submitted_Copy.pdf

areas of focus as they evaluate opportunities and priorities to enhance their internal controls and compliance operations to mitigate risks to reliability and security.

Summary

NERC will post the 2023 CMEP IP in late October.

During the implementation year, NERC or an RE may update its portions of the IP. Updates may include, but are not limited to, changes to compliance monitoring processes; changes to RE processes; or updates resulting from a major event, Federal Energy Regulatory Commission (FERC) Order, or other matter. REs submit updates to the NERC Compliance Assurance group, which reviews the updates and makes any necessary changes. When changes occur, NERC posts a revised plan on its website and issues an announcement.

2023 Risk Elements

The 2023 risk elements are included in Table 1 and reflect the continued maturation of the risk-based approach to compliance monitoring. The discrete risks identified within the risk elements provide focus for measuring current state and validating registered entity progress. By tracking improvements, industry and the ERO Enterprise can justify focusing on different risks in the future.

Compliance monitoring is not the only tool available to address the risks identified. CMEP staff may assist in various forms of outreach with industry to understand how effectively certain obligations are being implemented and to encourage best practices to achieve the common goal of mitigating risk to the BPS. Enforcement may consider these risks when assessing risk from possible noncompliance, assisting with mitigation plans, or assessing penalties. In Q4 2022, the ERO Enterprise released a report on themes and lessons learned from its evaluation of Facility Rating programs. This report identifies the most common themes in Facility Rating deficiencies observed by the ERO Enterprise and the lessons learned to address those deficiencies.

Table 1: 2023 Risk Elements
Remote Connectivity
Supply Chain
Incident Response
Stability Studies
Inverter-Based Resources
Facility Ratings
Cold Weather Response

A summary of the reasoning that led to each identified risk element is as follows:

- **Remote Connectivity:** Remote access to Critical Infrastructure Cyber Assets introduces an increased attack surface, as well as possible increased exposure. Malware detection and prevention tools deployed at multiple layers (e.g., Cyber Asset, intra-Electronic Security Perimeter, and at the Electronic Access Point) are critical in maintaining a secure infrastructure. A lesson learned from the coronavirus pandemic across all industries has been changes to the designed interaction between employees, vendors, and their workspaces which could have unintended effects on controls and protections of a remote workforce.
- **Supply Chain:** Unverified software sources and the integrity of their software may introduce malware or counterfeit software. FERC and NERC released a Joint Staff white paper on Supply Chain vendor identification that provided non-invasive techniques that registered entities may use to identify a vendor of network interfaces deployed on their network. Further, the Presidential Executive Order banning specific foreign manufacturers' equipment addresses supply chain risk from international espionage that is only increasing.
- **Incident Response:** Incident response has increasingly emerged as a risk to the BPS. Dragos has published a white paper on the malware developed by threat group Chernovite named Pipedream. This particular piece of malware is targeting industrial control systems, including the electric sector. One of the long-term readiness best practices within this white paper is to have an updated industrial control system-focused incident response plan with accompanying Standard Operating Procedures and Emergency Operating Procedures for operating with a hampered or degraded control system. Additionally, the CISA Cross-Sector CPGs Common Baseline includes the need to develop, maintain, and practice incident response plans to ensure effective response to threat actions against all assets, along with reporting cybersecurity incidents across IT and OT assets to CISA and any other mandatory reporting stakeholders.
- **Stability Studies:** The ERO Enterprise continues to make steady progress in evaluating operational and transmission planning impacts resulting from the changing resource mix. Events with tripping of Inverter Based Resources (IBRs) during disturbances are increasing in both frequency and severity. Unexpected tripping of IBRs indicates issues with dynamic model accuracy as well as issues with the robustness and thoroughness of stability studies.
- **Inverter-Based Resources:** Studies have shown a need to understand and more accurately model IBR characteristics in order to ensure IBRs stay online when needed. NERC shared several adverse characteristics of IBRs in two separate Alerts and has also released detailed reports about disturbances in Texas and California. With the recent and expected increases of both utility-scale solar resources and distributed generation, the causes of a sudden reduction in power output from utility-scale power inverters need to be widely communicated and addressed by the industry. Entities with increasing IBRs should be aware and address this within their models.
- **Facility Ratings:** The accuracy of Facility Ratings is a cornerstone of being able to use and protect the BES. Inaccurate Facility Ratings undermine the usefulness of stability studies. Operators depend on Facility Ratings to provide reliable System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs) that inform operating decisions. Protection engineers rely on Facility Ratings to protect equipment

from damage while also allowing equipment to stay online when it is both safe and most needed. Some registered entities have Facility Ratings based on inaccurate equipment inventories, or ratings are not being updated during projects or following severe weather. Knowing how an entity has established an accurate baseline for its data, and how it handles any changes going forward from that baseline, can give a good indication of if an entity is struggling.

- **Cold Weather Response:** Cold weather events encompass a wide range of situations that can cause major BPS impacts, and it is important that plans are developed and implemented to mitigate operating Emergencies. As identified in the 2021 RISC report, recent cold weather events (e.g., in ERCOT, MISO, and SPP) show that not only do cold weather events pose challenges due to the nature and frequency of the events themselves, but also the grid transformation heightens the effects and complicates mitigation of the events. Cold weather events can stress the BPS and expose weaknesses such as poor coordination between neighboring entities in planning or operations.

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Agenda Item 2

2023 CMEP Implementation Plan

Kiel Lyons, Senior Manager, Compliance Assurance, NERC
Compliance Committee
Open Meeting
November 7, 2022

RELIABILITY | RESILIENCE | SECURITY



- Purpose of the Compliance Monitoring and Enforcement Program (CMEP) Implementation Plan (IP)
 - Annual CMEP-related operating plan for NERC and Regional Entities
 - Risks that will be priorities for ERO Enterprises CMEP activities
- Timeline
 - NERC and the Regional Entities begin working on the IP in Q3 of the preceding year
 - NERC posts the IP in November
 - Updates may occur throughout year

- Risk Element Characteristics
 - Data-driven & expert judgement of ERO Enterprise staff
 - Use of ERO Enterprise publications
 - Identify and prioritize continent, interconnection, and region-wide risks to the reliability of the BPS
 - Not a representation of all important Reliability Standard requirements or risks for registered entities

- CMEP staff intended use
 - Focus compliance monitoring
 - Messaging to industry on areas of emphasis for CMEP activities
- Registered entity intended use
 - Used in conjunction with entity-specific COP
 - Consideration in compliance operations focus
 - Enhance internal controls

- Continued emphasis on focus and usability
- Risk Elements reflect a combined ERO Enterprise view
 - Focused to increase relevance to impacted registered entities
 - Reflects high level priorities for CMEP
 - Relevance based on registered entity's facts and circumstances

Table 2: 2023 Risk Elements
Remote Connectivity
Supply Chain
Incident Response
Stability Studies
Inverter-Based Resources
Facility Ratings
Cold Weather Response

- 2023 ERO Enterprise CMEP IP:
[insert link]



Questions and Answers

ERO Enterprise Theme and Best Practices for Sustaining Accurate Facility Ratings

Action Update

Summary

The ERO Enterprise has been actively engaged in identifying and working to mitigate challenges associated with facility ratings programs. These efforts include outreach; education; discussions at Regional Entity and NERC technical committee meetings; and monitoring, enforcement, and mitigation activities. Based on facility ratings data and information compiled by the ERO Enterprise over the years of performing these activities and working directly with applicable registered entities, the ERO Enterprise has identified common themes that have impacted and posed challenges to the sustainability of accurate facility ratings. While the identified facility ratings program challenges may be attributed to multiple causal factors, the ERO Enterprise determined that issues have primarily been associated with the following broader themes:

- Theme 1: Lack of Awareness
- Theme 2: Inadequate Asset and Data Management
- Theme 3: Inadequate Change Management
- Theme 4: Inconsistent Development and Application of Facility Ratings Methodologies

The ERO Enterprise drafted a report that explains these themes and provides potential best practices to address them. The report is intended to aid registered entities in strengthening the accuracy and sustainability of their facility ratings programs, thereby lessening the risks of facility ratings challenges and ensuring a more reliable and secure BPS.

ERO Enterprise staff will update the Board of Trustees Compliance Committee on the *ERO Enterprise Themes and Best Practices for Sustaining Accurate Facility Ratings* report, which was publicly released in October 2022.

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Agenda Item 3

ERO Enterprise Themes and Best Practices for Sustaining Accurate Facility Ratings

Tim Ponseti, VP Operations, SERC

Kristin Iwanechko, MRC and ERO Enterprise Leadership Secretary, NERC

Lonnie Ratliff, Director, Compliance Assurance and Certification, NERC

Teri Stasko, Assistant General Counsel and Director of Enforcement, NERC

Compliance Committee Open Meeting

November 7, 2022

RELIABILITY | RESILIENCE | SECURITY



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ERO Enterprise Themes and Best Practices for Sustaining Accurate Facility Ratings

October 20, 2022





**Facility Ratings
are
Foundational**



- They don't stand alone
- Nature of the evolving Grid
- Ambient Adjusted ratings – Order 881
- Confidence with Policy Makers

- Executive Summary
- Introduction
- Background
- **4 Themes**
- Sustaining Your Facility Ratings Program
- Conclusion
- **Appendix A: Facility Ratings Resources**

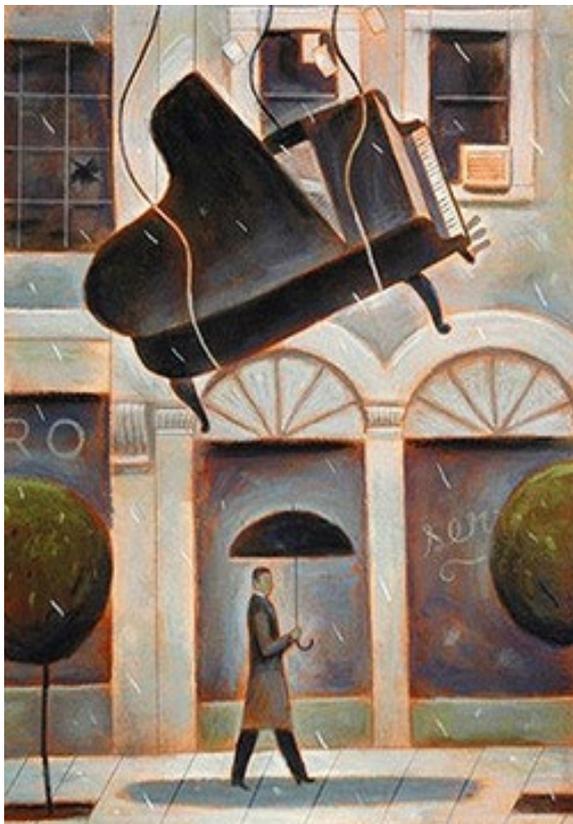
Framework used with each of 4 Themes:

- *Observations*
- *Suggestions to address the identified theme*
- *Corrective Actions*

Overall Objective:
Program Sustainability



Best Practices



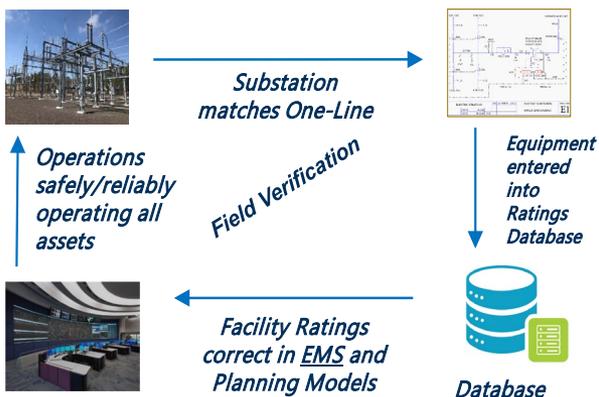
- Define Environment and Internal Controls needed to Maintain Reliable System
- Clarity on the Foundational components of the Program
- Facility Ratings Program Sponsor
- Clearly defined process, with clear roles & responsibilities
- Training for all departments and contractors involved
- Test the program; validate and verify
- Establish Accurate Baseline
- Field Verification
- Identify all Equipment – Take Photos
- Account for all necessary pieces of equipment
- Establish a Corrective Action Program – risk management and continuous improvement

Best Practices



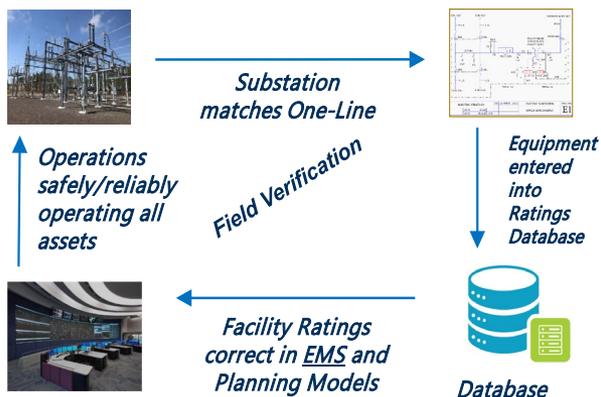
- Single Official Master Database
- Communicate location of database to all relevant personnel
- Document the process to obtain information from the field, and to enter into database
- Reinforce with Training, and workflow diagrams
- Peer review to ensure data entered correctly
- Implement strict access controls
- Contractor Management should be included

Challenges



- Emergency Restoration
- Inventory Management
- Mergers / Acquisitions
- Database Vendor Changes
- Coordination between Departments
- Equipment “removed from service”
- Changes to existing Equipment
- Commissioning of New Equipment
- Contractor work verification
- Local Office Redlines
- Underbuilds / Encroachments

Best Practices



- Change Checklist
- Quality Assurance Reviews after any change
- Validation through periodic reviews
- Data entry verification
- Periodic walk-downs
- Clearly outlined approval process
- Notification to update equipment inventory after a change is implemented
- Confirmation that change is implemented as planned
- Change process Flowchart



Best Practices



- Develop and maintain a detailed and comprehensive Facility Ratings methodology
- Use a single, consistent methodology applying the same criteria to components of a Facility
- Ensure consistent application of Facility Ratings methodology across multiple internal company divisions
- Provide the specific rating method for each class and type of element comprising a BES facility
- Train appropriate personnel on how to consistently apply the methodology
- Increase coordination with jointly-owned facilities to ensure common ratings are used

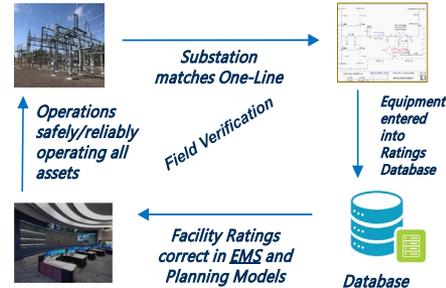
Theme 1: Lack of Awareness



Theme 2: Inadequate Asset and Data Management



Theme 3: Inadequate Change Management



Theme 4: Inconsistent Development/ Application of Facility Rating Methodology





Questions and Answers