



# NERC Compliance Services Group (N-CSG)

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# NERC CSG Team



**Steve Sconce**  
Dir., NERC  
Compliance Services  
Group



**Sonny Patel**  
Sr. Electrical  
Engineer

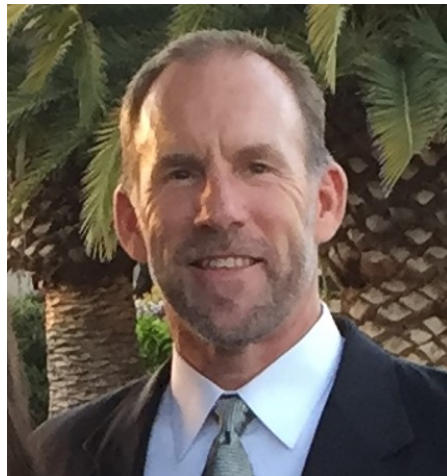


**Todd Chwialkowski**  
NERC Business Development  
Manager



**Joseph Mosher**  
Portfolio Manager -  
NERC

**Jeff Backowski**  
Compliance  
Specialist, NERC



**Steve Kerrin**  
Compliance Analyst,  
NERC



# NERC CSG Team



**Steve Sconce**  
Auto Enthusiast



**Sonny Patel**  
The Ultimate Sports Fan



**Todd Chwialkowski**  
Weekend Adventurer



**Joseph Mosher**  
The Axe Man

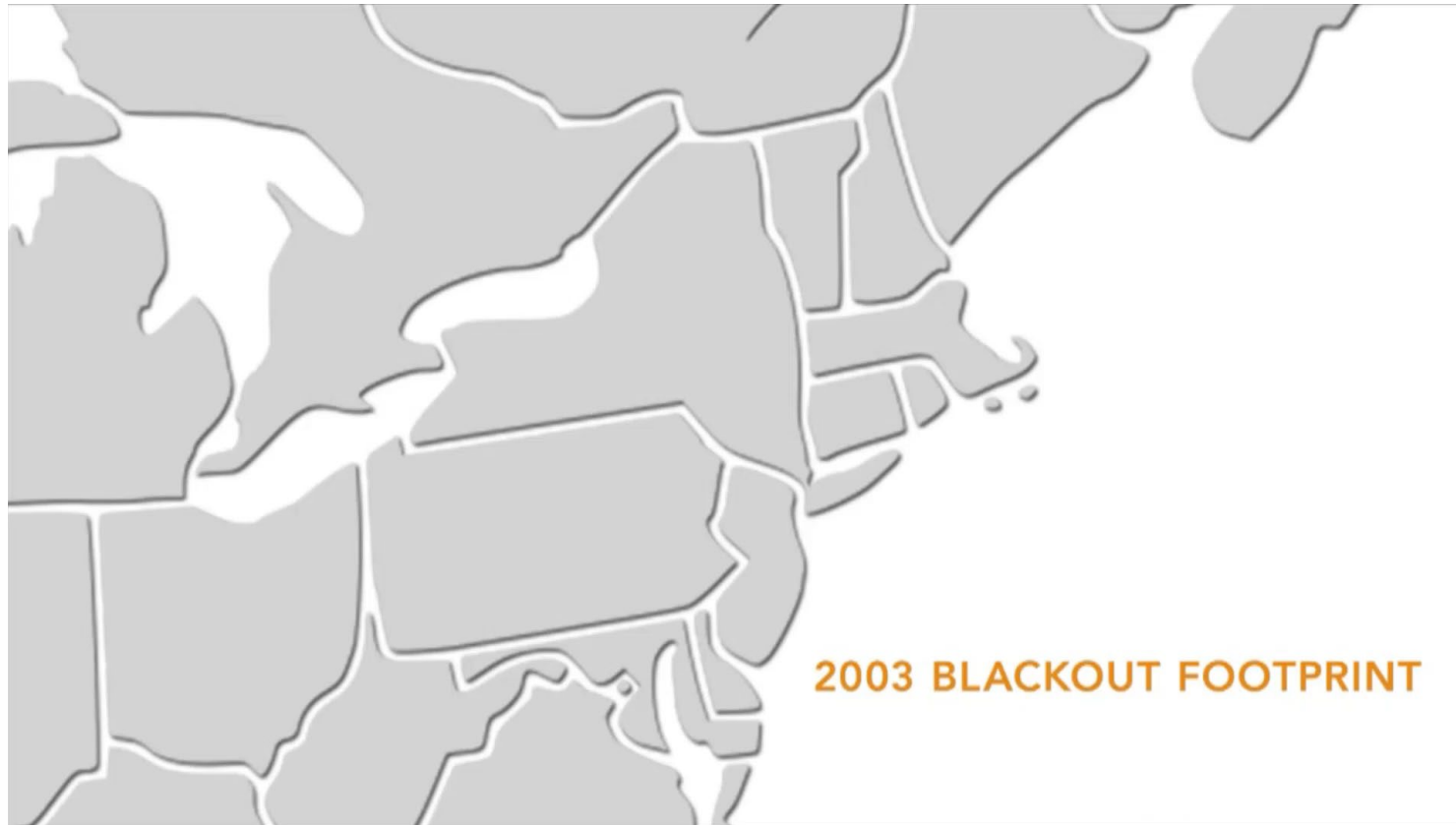
**Jeff Backowski**  
Navy days – EOD  
Advanced Open  
Underwater school



**Steve Kerrin**  
Alaskan Explorer

# Why Do We Need NERC?

Largest Outage on the North American Grid, August 14, 2003



## Consequences

- 60,000 Megawatts Interrupted
- Over 500 Powerplants Tripped Offline
- \$10 Billion in Economic Impact

# FERC Actions Following the Northeast Grid Outage

EDFR protects their **renewable generation**, storage, and management solutions meeting Federal Legal Standards and Requirements



## GRID OUTAGE

- August 14, 2003 **Largest GRID Outage**
- 2003 **Outage Systems Power Taskforce Established**



## BLACKOUT REPORT

- April 2004 **Final [Blackout] Report Released** on the August 14 Outage in the United States and Canada, outlining Causes and Recommendations



## LAW CREATED

- August 8, 2005, the **Electricity Modernization Act of 2005** Enacted into Law



## O&P STANDARDS

- March 16, 2007, **FERC Order No. 693 Approved** Creating Mandatory Reliability Standards for the Bulk-Power System (**Operations and Planning Standards**)



## CIP STANDARDS

- January 18, 2008, **FERC Order No. 706 Approved** Creating Mandatory Reliability Standards for **Critical Infrastructure Protection**
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# FERC and NERC

Governing and regulatory bodies that create standards to ensure grid reliability  
*Mandatory and Enforceable to Registered Entities*

## FERC (Federal Government)

### Federal Energy Regulatory Commission

- An **independent U.S. government agency** that regulates the interstate transmission of electricity.
- Ensures safety and reliability in the distribution and transportation of **electricity, oil, and natural gas** in the US.
- **Oversees NERC** standards

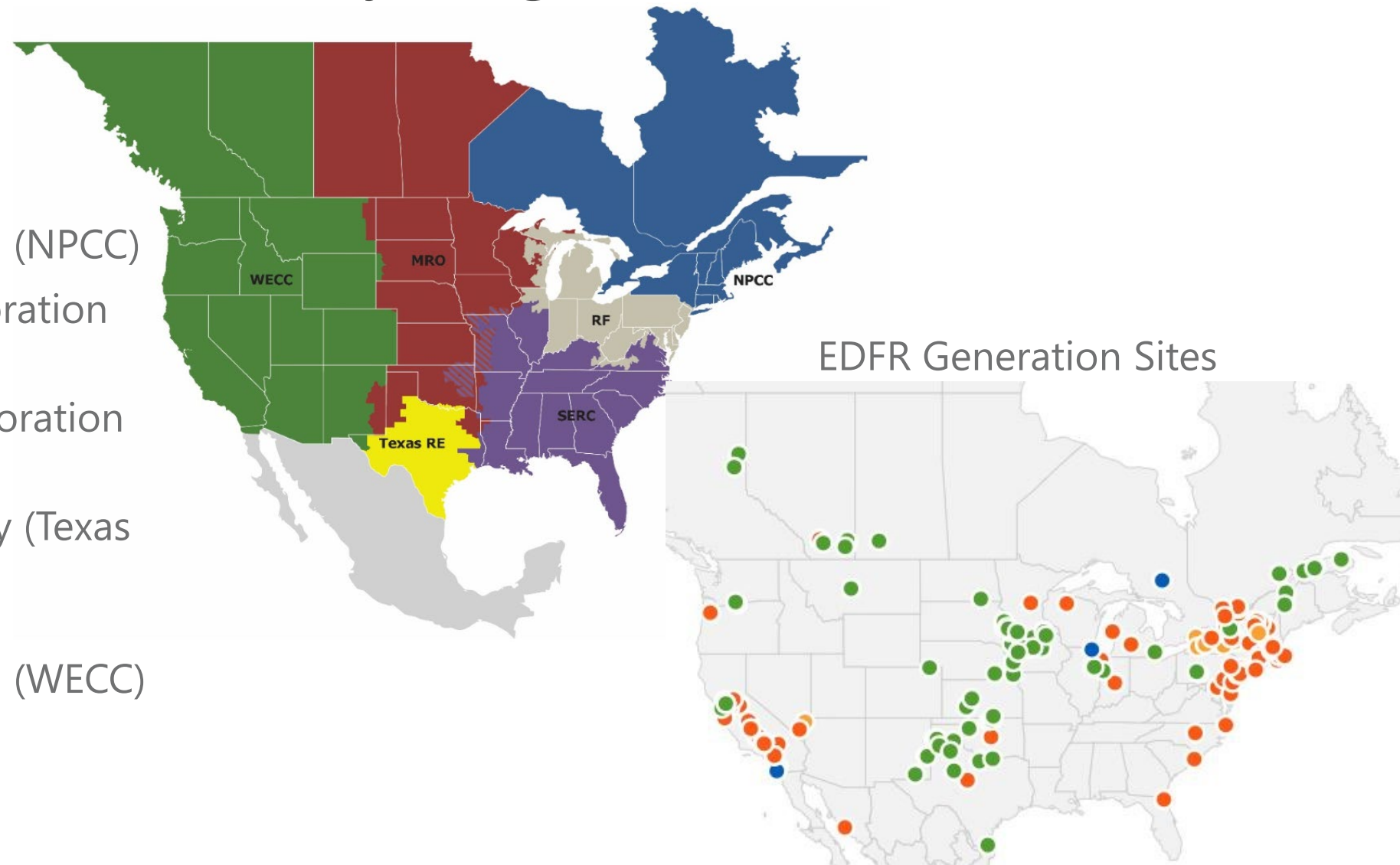
## NERC (Non-Profit Corporation)

### North American Electric Reliability Corporation

- Given power by FERC in response to 2003 Blackout
- Ensures the safety and reliability of the **bulk electric system (BES)**
- **Overseen by FERC**, as well as authorities in Canada and Mexico.
- Creates safety and reliability standards for **power system operation**, monitoring and enforcing compliance.

# Regional Reliability Organizations (RRO)

- Midwest Reliability Organization (MRO)
- Northeast Power Coordinating Council (NPCC)
- Reliability First Corporation (RF)
- SERC Reliability Corporation (SERC)
- Texas Reliability Entity (Texas RE)
- Western Electricity Coordinating Council (WECC)



# Operations and Planning (O&P) Standards

- BAL – Balance and Demand Balancing
- COM – Communications
- EOP – Emergency Preparedness and Operations
- FAC – Facilities Design, Connections, and Maintenance
- INT – Interchange Scheduling and Coordination
- IRO – Interconnection Reliability Operations and Coordination
- MOD – Modelling, Data, and Analysis
- NUC – Nuclear
- PER – Personnel Performance, Training, and Qualifications (Applicable in 2020)
- PRC – Protection and Control
- TOP – Transmission Operations
- TPL – Transmission Planning
- VAR – Voltage and Reactive



## NERC's Four Pillars of Success

- Reliability
- Assurance
- Learning
- Risk-Based Approach



# Critical Infrastructure Protection (CIP) Standards



## Compliance Monitoring Tools

- NERC Monitoring Compliance Audits
- Self-Certifications
- Spot Checks
- Self-Reports
- Periodic Data Submittals
- Complaints (whistle-blower)
- Compliance Investigations

- CIP-002 - Critical Cyber Asset Identification
- CIP-003 - Security Management Controls (NERC CIP Low Impact Compliance)
- CIP-004 - Personnel and Training
- CIP-005 - Electronic Security Perimeters
- CIP-006 - Physical Security of Critical Cyber Assets
- CIP-007 - Systems Security Management
- CIP-008 - Incident Reporting and Response Planning
- CIP-009 - Recovery Plans for Critical for Critical Cyber Assets
- CIP-010 – Configure Change Management and Vulnerability
- CIP-011 – Information Protection
- CIP-013 – Supply Chain Risk Management
- CIP-014 – Physical Security (high-impact only)

# NERC GADS Reporting Services

Mandatory Based on NERC Section 1600 Data Request

Opportunities for 3<sup>rd</sup> Party Generators: Strong momentum in new markets and  
Great Opportunity to “open the door” to additional EDFR services

## Wind

- Sub-Group (Mandatory) – Registration Information & Site Characteristics
- Performance (Mandatory) – Generation and Outage Statistics (Monthly)
- Component (Outage) (Voluntary) – Specific Outage Information



■ Wind: 75MW+ Generation Plants

## Solar

- Sub-Group (Mandatory) – Registration Information & Site Characteristics
- Performance (Mandatory) – Generation and Outage Statistics (Monthly)
- Component (Outage) (Mandatory) – Specific Outage Information



■ Solar:

- 50MW+ Plants: Effective January 1, 2022
- 20MW+ Plants: Effective January 1, 2023

# Non-Compliance / NERC Penalties

## Taken into consideration:

- Repetitive violations and compliance history
  - Complying with compliance directives
    - Intentional violations
    - Concealment
- Presence and quality of a compliance program
  - Degree and quality of co-operation
- Self-disclosure and voluntary corrective action

**2018**

PG&E: \$2.8MM  
(CIP)

**2019**

Duke Energy:  
\$10MM  
(CIP)

**2019**

Peak Reliability:  
\$2.3MM (O&P)

**2019**

Calpine: \$375k  
(O&P)

**2019**

New York State  
Electric and Gas Corp:  
\$450k (O&P)

# NERC Service Requirements and Offerings

<ul style="list-style-type: none"><li>▪ Asset Registration</li><li>▪ Develop Internal Compliance Program</li></ul>	<ul style="list-style-type: none"><li>▪ Developing NERC Policies, Procedures, and Work Instructions</li><li>▪ GADS Reporting</li></ul>	<ul style="list-style-type: none"><li>▪ Perform Compliance Gap Assessments</li><li>▪ Engineering Studies and Analyses</li></ul>	<ul style="list-style-type: none"><li>▪ Assist with Audits, Spot Checks, Self-Certifications, Data Requests &amp; Data Submissions</li></ul>	<ul style="list-style-type: none"><li>▪ Reduce Regulatory Risk &amp; Develop a Real-Time Compliance Program</li></ul>

**O&P** (Operations and Planning): means maintenance and testing

**CIP** (Critical Infrastructure Protection): means cyber and physical security



# NERC Sales under Contract

2018 - 2020: \$3MM+





Thank you.

The NERC Compliance Services Group attributes our success to the cooperation and support of many departments at EDFR.

Balancing compliance and operations in maintaining a “real-time” compliance program responsibly is a key to maintaining a strong culture of compliance.



connect

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