

# APPA LEGAL SEMINAR

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## **Bulk Electric System Definition:**

Why it matters, why it's changing, and where we stand at FERC and NERC

Cindy Bogorad and  
Latif Nurani

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**SPIEGEL &  
McDIARMID**  
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# BES Definition

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- Key to scope and effectiveness of NERC reliability standards
- Affects whether and extent to which your system is subject to complying with NERC standards, subject to penalties
- Displays evolution in unique FERC-NERC relationship under Section 215 of the FPA, enacted in EPAAct 2005

# FPA 215: Unique Regulatory Scheme

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- Electric Reliability Organization (ERO) to develop and enforce standards, subject to FERC oversight
- ERO and FERC authority to enforce through penalties (up to \$1 million/violation/day)

# Inherent FERC-NERC Tension

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- FERC reviews but cannot write standards
- FERC must give due weight to ERO technical expertise with respect to standard's content
- FERC can remand and direct ERO to propose standard to address a specific matter

# Section 215 Authority More Limited than Sections 205/206

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206: “Whenever the Commission, after a hearing . . . , shall find that any rate . . . is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall *determine* the just and reasonable rate . . . to be thereafter observed . . . and shall *fix the same* by order.”

# BPS: Scope of Jurisdiction and Standards

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- Jurisdiction: “[a]ll users, owners and operators of the **bulk-power system**.” § 215(b)(1)
- Reliability standard: “requirement . . . to provide for reliable operation of the **bulk-power system**.” § 215(a)(3)

# Bulk-Power System

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“[F]acilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof)” and “electric energy from generation facilities needed to maintain transmission system reliability” but does not include “facilities used in the local distribution of electric energy.” § 215(a)(1)

# Reliability Standards Use BES

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- Version 0 standards pre-dated EPAAct 2005
- Many standards refer to BES or Facilities
- “Facilities” defined: “equipment that operates as a single Bulk Electric System Element.”



# Registry Criteria Quotes and Uses BES

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- Users, owners, operators of BES are candidates for NERC registration
- TO: owns/maintains transmission Facilities
- DP/LSE: 25 MW peak load and directly connected to Bulk Power (> 100 kV) System
- GO/GOP: unit > 20 MVA or plant > 75 MVA and directly connected to Bulk Power System

# Current BES Definition

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“As defined by the Regional Reliability Organization, the electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher. Radial transmission facilities serving only load with one transmission source are generally not included in this definition.”

# Order 693 NOPR Proposed Interpretation

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- All  $\geq 100$  kV transmission systems and any underlying  $< 100$  kV system that could limit or supplement operation of higher voltage transmission systems
- Transmission to all significant local distribution systems (not distribution system itself), load centers, and connecting generation that supplies energy to system

# Order 693 Reflects Successful Pushback

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- At least for initial period, FERC will rely on the NERC definition of bulk electric system
- NERC registry criteria approved to define those that must comply, and rely on registration process to provide certainty

# Order 693: Continuing FERC Concerns

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- “[P]otential for gaps in coverage of facilities,” which it would “address ... in a future proceeding”
- Inconsistency – “As defined by the [RRO]”
- Some regions exclude facilities < 230 kV and serving major load centers – DC and NYC
- Regional informational filings

# Focus on NPCC

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- Used impact methodology to identify BES elements on which faults or disturbances can have a significant adverse impact outside of the local area
- Excluded most 115-138 kV transmission facilities in NYISO and some higher voltage facilities connected to nuclear plants

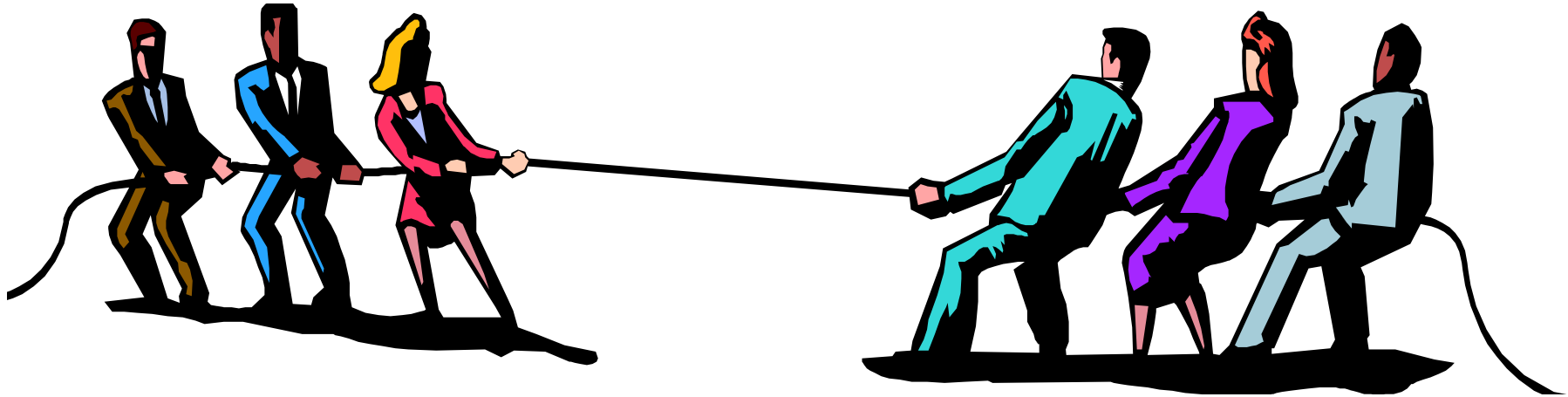
# Increasing Tensions between FERC and NERC

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- Highly prescriptive directives mount
- NERC can't ignore FERC directive to “*address a specific matter*” but only NERC can develop standards
- What does “due weight to the technical expertise of the ERO” mean?

# March 18, 2010 Orders

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# March 18, 2010 Orders

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- When we snap, you jump; we'll tell you how high
- Heavy handed, very costly, prescriptive; evince mistrust of NERC
- FERC penalty guidelines modeled on US Sentencing Guidelines, covering reliability
- Direct NERC to change rules to stop “balloting down” standards to comply with FERC directives

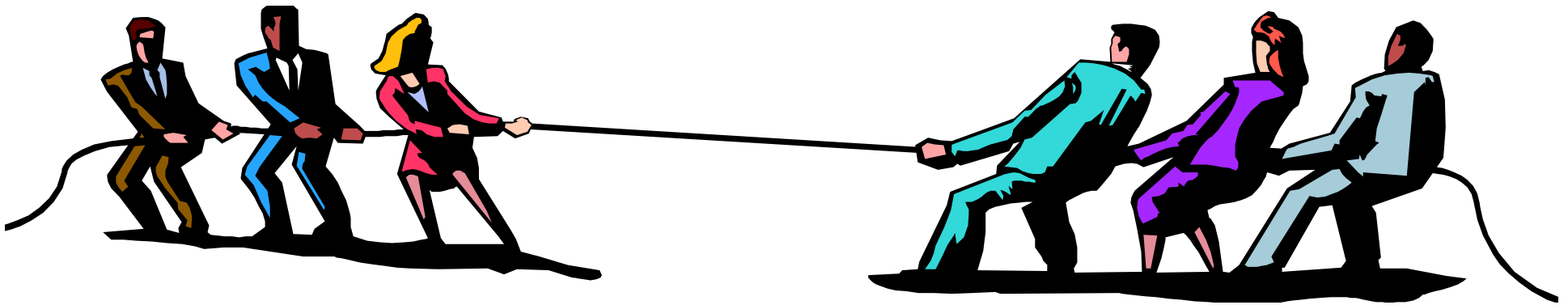
# March 18, 2010 Orders: BES NOPR

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- Proposed “Bright line” 100 kV BES definition (except radial serving only load)
- Directs NERC to include all  $\geq 100$  kV transmission; no regional discretion
- Exemption effective upon FERC approval; entity subject to compliance while pending

# Backlash

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# Backlash

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- Public outcry
- Industry-wide pleadings
- 11<sup>th</sup> Floor recognizes FERC went too far

# Enhanced Communications

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- FERC Commissioners and Advisors attend NERC Board Meetings
- Reliability group at Office of General Counsel
- Technical conferences at FERC
- Dialog on priorities — if everything's high priority nothing is

# “Kinder, Gentler” Approach?

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- At least more polite, e.g., Order 743 (BES)
- Rather than direct outcome, FERC lets NERC develop definition to meet FERC concerns: “encompasses all facilities necessary for operating an interconnected electric transmission network”
- NERC allowed to craft exemption process

# NERC's Proposed BES Definition

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- Core: Unless modified by the [Inclusion and Exclusion] lists shown below, all Transmission Elements operated at 100 kV or higher and Real Power and Reactive Power resources connected at 100 kV or higher. This does not include facilities used in the local distribution of electric energy.
- Inclusions/Exclusions
- Exception Process

# Proposed BES Definition: Inclusions

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- Identifies facilities not captured by core definition, but nonetheless included in BES
- Clarifies ambiguities
- E.g., transformers with a primary terminal and at least one secondary terminal operated at or above 100 kV. Not typical step-down (115 kV to 69 kV) transformers



# Proposed BES Definition: Exclusions

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- Identifies facilities that satisfy core BES definition, but nonetheless excluded
- E1 excludes radial systems that serve only load or include non-blackstart generation with an aggregate capacity of less than 75 MW
- Not affected by “[n]ormally open switching device between radial systems”

# Proposed BES Definition: Exclusions

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- E3 excludes certain local networks that distribute power to load rather than transfer bulk power across the grid
- (1) below 300 kV, (2) no more than 75 MVA non-retail generation, (3) not part of flowgate or transfer path, (4) power only flows into local network

# Applying Core Definition and Inclusions/Exclusions

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- Like today, entities make initial determination
- Subject review by Regional Entity, NERC, and ultimately FERC
- Greater clarity and specificity should reduce (but not eliminate) disagreement

# Proposed BES Definition: Exceptions

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- Bright-line definition cannot take account of all possible configurations and their impact
- Entity may request (i) exclusion of Element within BES definition, or (ii) inclusion of Element outside BES definition
- Key to including right facilities in BES

# Proposed Exception Procedure

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- **Request:** By owner, operator, Regional Entity, PA, RC, TOP, TP, BA
- **Recommendation(s):** Regional Entity conducts study; Technical Panel study if RE recommends denial
- **Decision:** NERC panel proposes decision; NERC CEO decides, subject to BOTCC and FERC review

# BES Compliance NOPR

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- Issued June 22, 2012
- Proposes to accept NERC's definition and exemption process without directives
- Poses many probing questions as to why definition shouldn't cover more facilities
- Groundwork for directives in final rule?

# BES Compliance NOPR

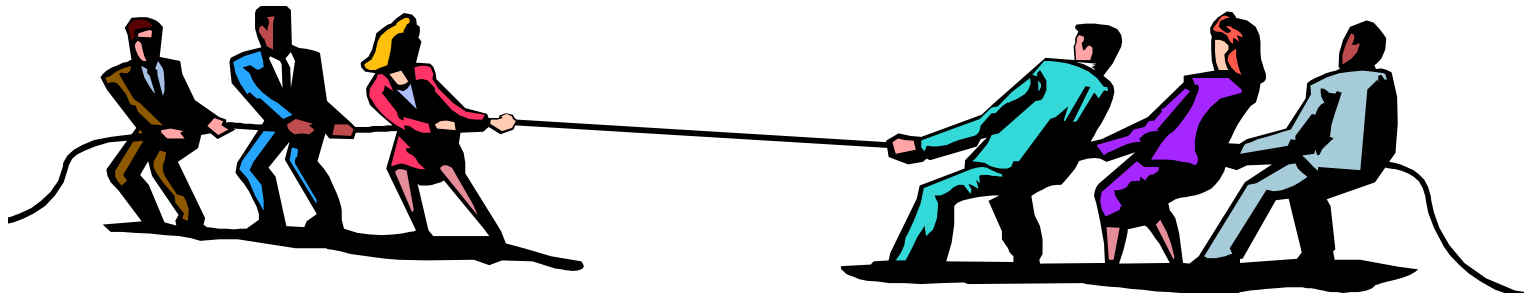
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- FERC concern: role played by IID's 92 kV system in the Southwest Outage
- Commenters' response: exception process will include significant sub-100 kV facilities
- Will FERC be satisfied?

# Continued Tug of War? Stay Tuned...

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- Final rule will say as much about evolving FERC-NERC relations as merits
- Will FERC trust NERC and regions to use BES definition/procedures to include right facilities?





# Questions?

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## FOR MORE INFORMATION

**CINDY BOGORAD**

**LATIF NURANI**

202.879.4000

[cindy.bogorad@spiegelmc.com](mailto:cindy.bogorad@spiegelmc.com)

[latif.nurani@spiegelmc.com](mailto:latif.nurani@spiegelmc.com)

**SPIEGEL & McDIARMID** LLP

1333 New Hampshire Avenue, NW

Washington, DC 20036

[www.spiegelmc.com](http://www.spiegelmc.com)

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McDIARMID**

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