#### **COMMISSION BRIEFING SLIDES/EXHIBITS**

#### JOINT MEETING WITH FERC ON GRID RELIABILITY

**JANUARY 24, 2007** 



## Grid Reliability Update

#### Joint FERC/NRC Meeting

Patrick L. Hiland, Director Division of Engineering Office of Nuclear Reactor Regulation Michael E. Mayfield, Director Division of Engineering Office of New Reactors

January 23, 2007

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- Progress since April 2006 joint Commission meeting
- Summer 2007 readiness assessment
- New reactors



April 24, 2006 Follow-up

- 1. Provide loss of offsite power data to FERC
- 2. Interact with stakeholders regarding the safety impact of new generating capacity
- 3. Provide information on NRC training and processes
- 4. Obtain a better understanding of OASIS
- 5. Schedule a joint Commission meeting



# Summer 2007 Readiness

# Nuclear power plants are prepared to address changes in grid reliability

NRC has improved oversight

- Assessing responses to Generic Letter 2006-02
- Enhancing routine inspections
- Improved monitoring of grid status



# Beyond Summer 2007

- Continue to work closely with stakeholders
- Resolve differences in Station Blackout Rule interpretation
- Learn from the operating experience review

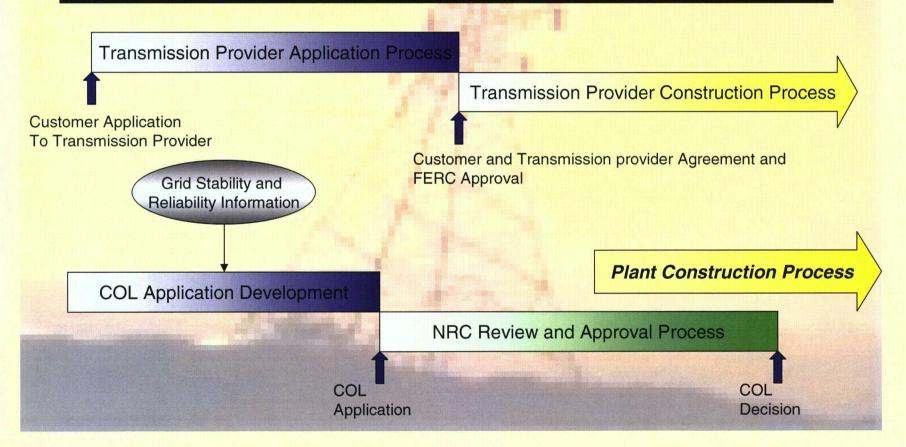
FitzPatric Duan Rent B Qued Q East Case t Cliffs 1/2 Clinton Cal Wolf Creek Sta anusiche Peak 1:2 Gra South Texas Project 1/2 Legend • NPP New Reactor Proposed (Data Current as of 9/14/2006)

#### **NPPs and COL Application Sites**

NPP: Nuclear Power Plant



# **Parallel Review Process**



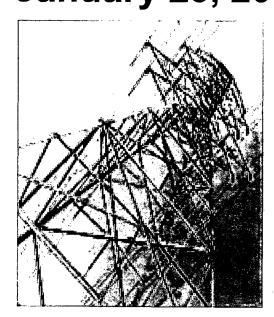


# List of Acronyms

- COL Combined Operating License
- FERC Federal Energy Regulatory Commission
- ERO Electric Reliability Organization
- ISO Independent System Operator
- NERC North American Electric Reliability Corporation
- NRC Nuclear Regulatory Commission
- OASIS Open Access Same time Information System
- TSO Transmission System Operator

Joint Meeting of the Nuclear Regulatory Commission and Federal Energy Regulatory Commission January 23, 2007





Joseph H. McClelland Director, Division of Reliability Energy Markets and Reliability

#### **The Energy Policy Act of 2005**



- Provided FERC with substantial new authority over the reliability of the Bulk Power System
- Certification of an ERO and approval of mandatory standards for all users, owners, and operators of he Bulk Power System
- The Commission can approve a proposed standard or remand a standard to the ERO or Regional Entity
- The Commission must give "due weight" to the technical expertise of the ERO
- Excludes local distribution and does not authorize the Commission to order the construction of new facilities

# Order 672 – Rules for the ERO and Standards



- Order 672 was issued on 2/3/06
- Encourages the ERO to seek international recognition in Canada and Mexico
- Establishes the responsibilities of the ERO as well as its ability to delegate some duties to Regional Entities
- Affirms that regional variations to the reliability standards are permitted in some circumstances
- Affirms the Commission's ability to independently conduct investigations and enforcement actions
- Establishes guidelines for the determination and application of penalties for violations of approved reliability standards



- On 4/4/06, NERC filed its application to become the ERO and its reliability standards with the Commission for review/approval
- Staff released a preliminary assessment of the standards on 5/11/06
- Comments were solicited through June
  and a technical conference held in July
- The assessment and comments were used to help draft the NOPR for the Standards



- On 7/20/06, the Commission certified NERC as the ERO
- On 8/28/06, NERC filed its CIP standards for Commission review and approval
- On 10/19/06, the Commission approved NERC's 2007 Business Plan and Budget as the ERO



- Also on 10/19/06, the Commission issued the Reliability Standards NOPR
  - The NOPR proposes to approve 83 of 107 standards
  - The NOPR calls for modifications to 62 of 83 of the standards
  - The NOPR sets aside 24 of the 107 standards pending the receipt of additional information
  - The NOPR proposes to direct the ERO to develop a work plan
- To-date, 128 comments comprising approximately 2,100 pages have been received by the Commission



- On 11/29/06, NERC filed its Delegation Agreements and the Compliance Monitoring and Enforcement Program
- To date, over 140 comments comprising over 1,000 pages have been filed
- On 12/11/06, the Commission issued a preliminary staff assessment on NERC's CIP Standards
- Comments are due on the CIP standards staff
  assessment by 2/12/07
- The goal is to have mandatory and enforceable reliability standards by the summer of 2007

#### Grid Reliability

#### Federal Energy Regulatory Commission and Nuclear Regulatory Commission January 23, 2007



## **Key Initiatives**

- Transmission needs for new nuclear units
- Implementing blackout recommendations

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- Off-site power reliability standard
- Coordination with NRC

### **Transmission Needs**

- Need thorough studies Can't just "plug and play"
- Transmission lagging demand and capacity growth
- Increased congestion effects
  - Supply adequacy
  - Energy security
  - Economy
- Transmission planning horizon 5 years or less, but takes longer to permit
- Big question is "who pays?"

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#### **Implementing Blackout Recommendations**

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- New standards
- Vegetation outage reporting
- Compliance enforcement
- Readiness evaluations
- Operator training
- Protective relay reviews
- System modeling

# Offsite Power Reliability Standards

- Coordination between nuclear plant and transmission operators
- Ensure safe operation and shutdown
- Ballot in April
- Board approval in May
- Implementation 18 months after FERC approval



### Coordination with NRC

## NRC-NERC MOA

- Basic agreement signed August 2004
- Coordination plans signed in May 2005
  - Communication during emergencies
  - Event analyses
  - Exchange of operational experience
  - Participation in NERC committees

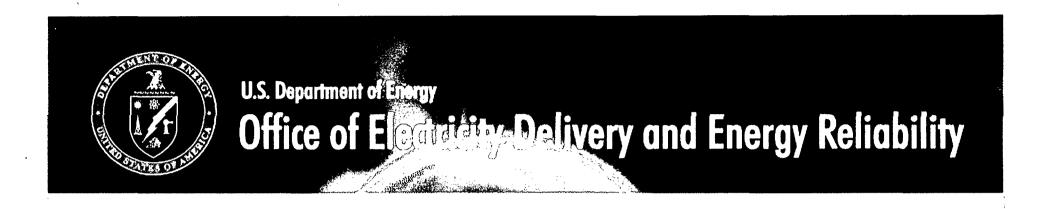


#### Grid Reliability

#### Federal Energy Regulatory Commission and Nuclear Regulatory Commission January 23, 2007



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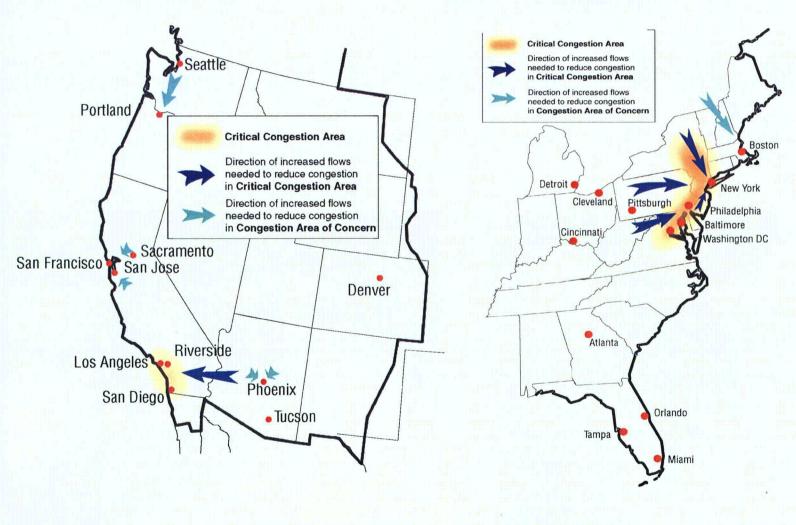
### DOE Implementation of EPACT Transmission Provisions January 23, 2007

#### Office of Electricity Delivery and Energy Reliability (OE) US Department of Energy

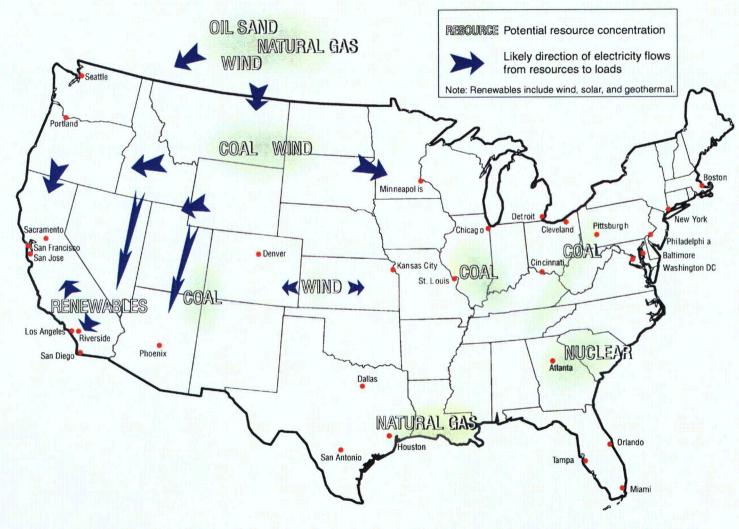
### The DOE Congestion Study

- Published August 8, 2006;
- Identified 3 categories of congestion areas: critical, area of concern, and conditional;
- Requested comments by Oct. 10;
- DOE now evaluating comments. Secretary may propose *draft* "national interest electric transmission corridors;"
- Any draft designation will be followed by a comment period and a possible report and final designation.

#### **Critical Congestion Areas and Congestion Areas of Concern**



#### **Conditional Congestion Areas**



#### Transmission and New Nuclear Units

- The introduction of new nuclear generation facilities will have profound impacts on the grid;
- Developers should begin dialogue with OE and regional transmission planners;
- Transmission planning, review, and construction must be done in parallel with that for nuclear units.