NERC
2001 Summer Outlook for Electricity Reliability

May 15, 2001
Reliability Assessment Subcommittee (RAS)

- **Mission:** Assess the reliability of the North American bulk electric system
  - Seasonal assessment reports
  - Long-term (10 year) assessment reports

- **Members:**
  - Industry experts from across the continent
2001 Summer Reports

- Summer Assessment—Reliability of bulk electric systems throughout North America
- Special Assessment—In-depth assessment of California and the Pacific Northwest

Available at www.nerc.com
Summary of Expected Summer Conditions

- Rotating blackouts in California throughout the summer
- Tight capacity conditions in Pacific Northwest, New England, and New York City
- Continued heavy loadings on transmission system

Obtained and made public by the Natural Resources Defense Council, March/April 2002
Summary of Expected Summer Conditions

- Resources expected to be adequate in other areas
- Electric power system still vulnerable
  - Widespread heat wave
  - Higher than expected generator unavailability
  - Transmission equipment failure
CAISO

- Independent NERC assessment
- CAISO Summer Assessment 2001 report used as a starting point
- NERC believes supply shortages will be greater than expected by the CAISO
CAISO

- NERC expects:
  - Rotating blackouts during about 260 hours over the summer
  - Average amount of involuntary demand reductions about 2,150 MW
  - CAISO may be short as much as 5,500 MW during peak periods
CAISO

- Uncertainties:
  - Effects of conservation efforts
  - Customer response to rate increases
  - Performance of generators
  - Amount of new capacity added
  - Weather (temperature and rainfall)
Pacific Northwest

- Entire area in severe drought for past year
- Water at critically low levels
- Area depends upon hydropower resources for about 2/3 of its electricity production
Pacific Northwest

- Hydro generators have the ability to produce full output for a short time, but cannot sustain this level
- Less electricity to share with neighbors (California)
- Area susceptible to long term heat waves
Pacific Northwest

- NERC expects:
  - Able to serve local firm demand this summer.
  - Not much help for California.
  - Rotating blackouts are a possibility in winter 2001/2002 unless significant precipitation occurs.
New England

- Improvements since last summer:
  - Over 2,300 MW of new generation

- Issues:
  - Capacity margin still tight
  - About 1,500 MW available from Quebec
  - Imports from Quebec not firm

- NERC expects:
  - New England will be tight, but adequate
New York City

- Improvements since last summer:
  - About 600 MW of additional generation

- Issues:
  - Opposition to construction of new combustion turbines and generator repowering project

- NERC expects:
  - NYC will be tight but adequate IF all new generation is in service this summer
Transmission Issues

- Heavy north-to-south electricity transfers experienced last summer
  - Many Transmission Loading Relief procedures (TLRs) called to alleviate constraints
  - Concerns about transmission voltage problems in Kentucky and Tennessee
- A repeat is possible this summer if similar weather and fuel price conditions occur
Recap

- Rotating blackouts in California throughout the summer
- Tight capacity conditions in Pacific Northwest, New England, and New York City
- Continued heavy loadings on transmission system