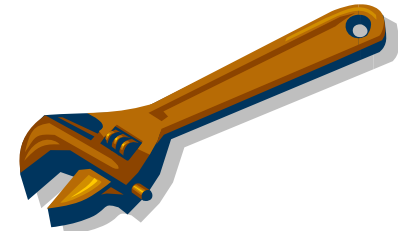


Wind Energy:



*The Right Tool
for the Right Job?*



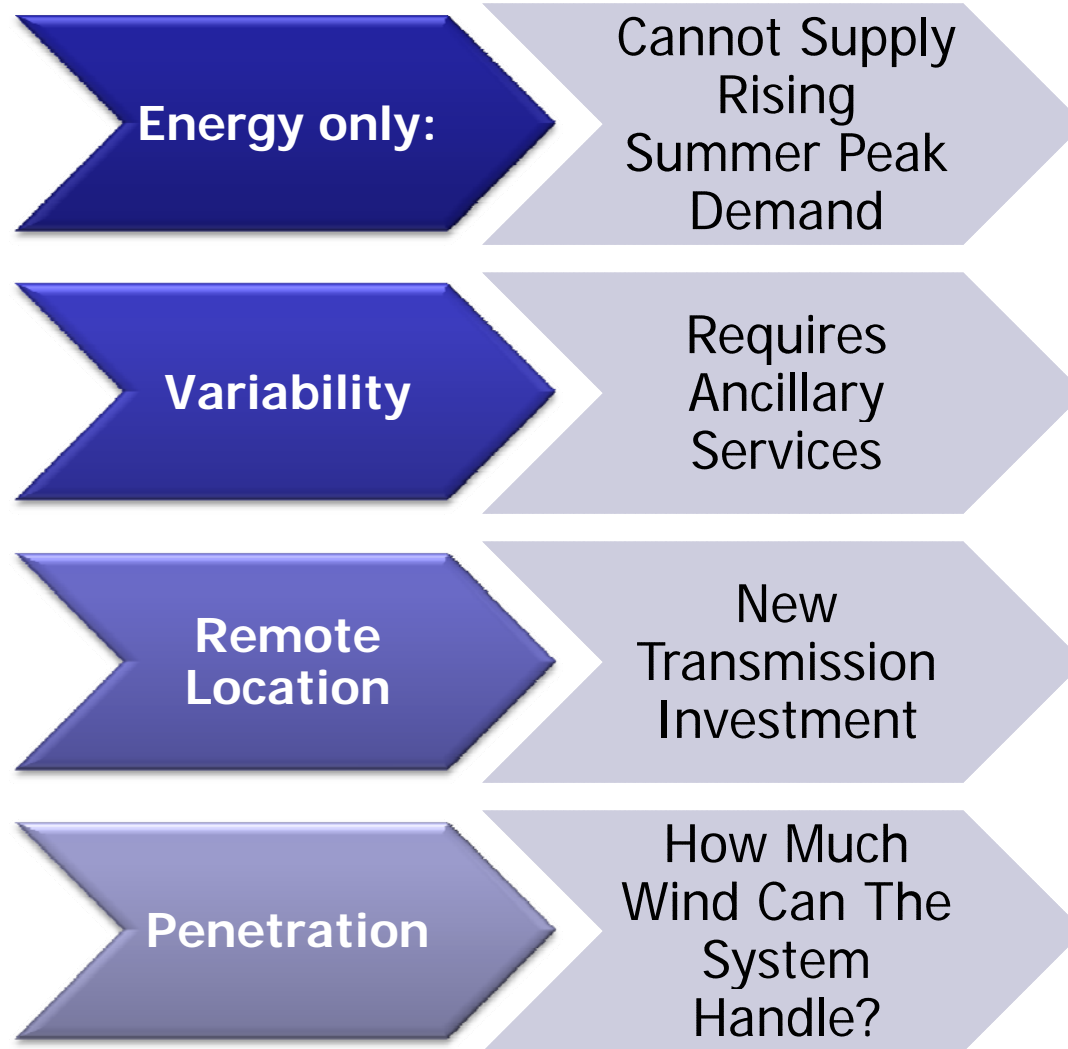
March 25, 2008

Jeffry Pollock

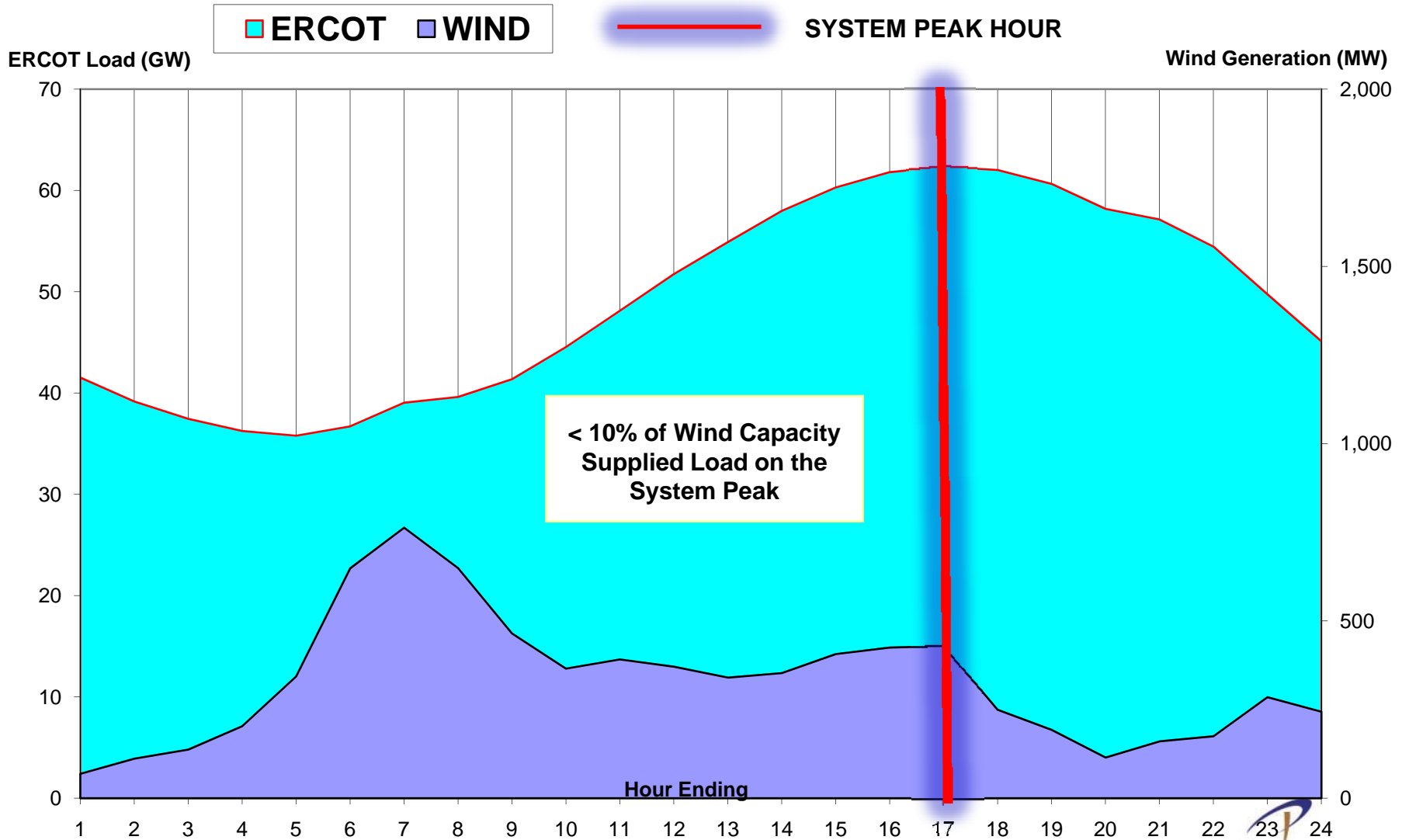


J. POLLOCK
INCORPORATED

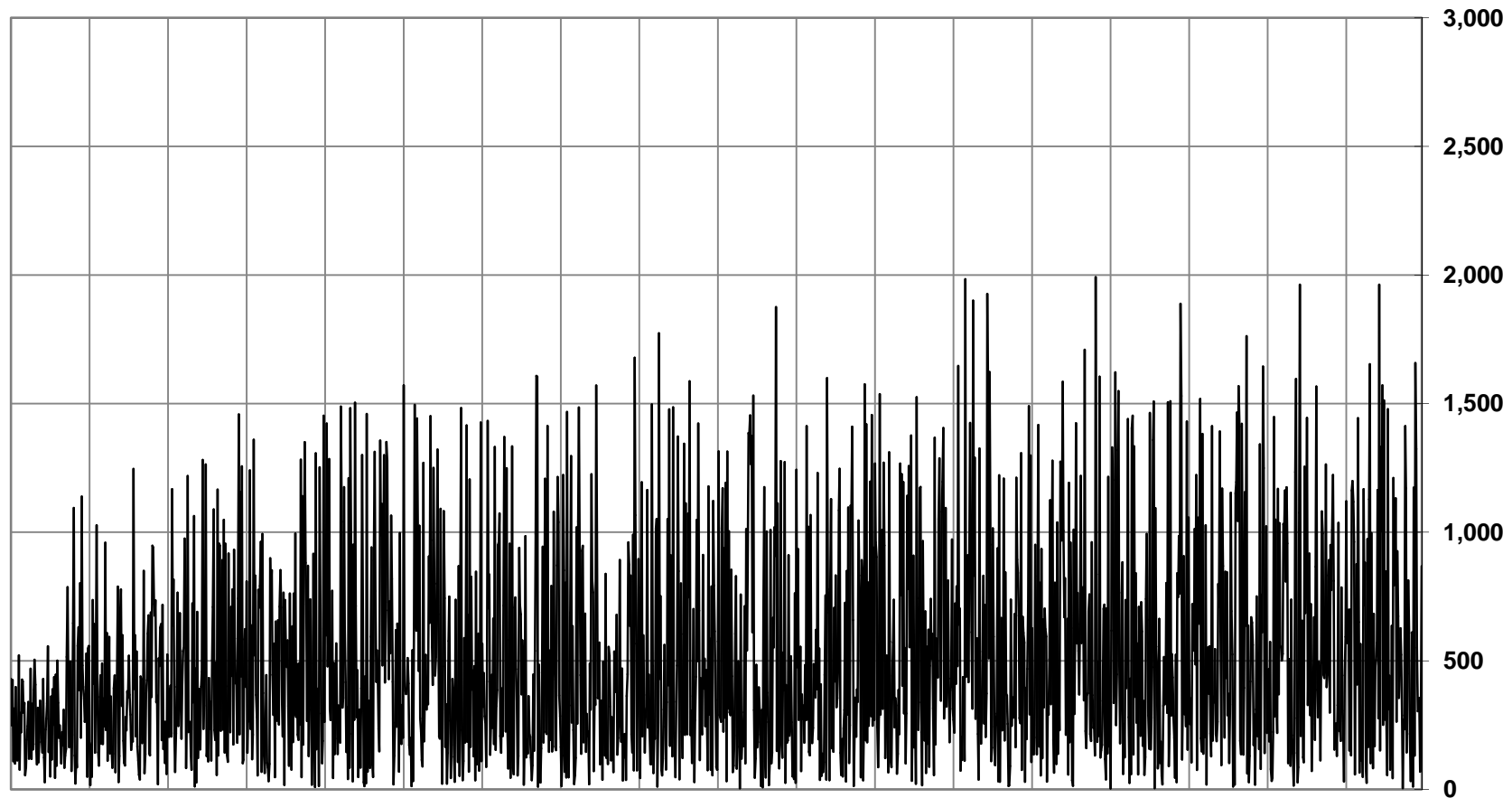
Integrating Wind Resources: Key Issues



Energy Only Resource



Variability of Wind Generation



Variability

NERC:
2007 Long-
Term
Reliability
Assessment

Wind and solar resource variability requires ancillary services such as voltage support, frequency control, increased base-load unit dispatch flexibility, and spinning reserves.

ERCOT:
Wind Integration
Ancillary
Services
Requirements
Study

Regulation requirements (average, annual) increase linearly with increase in installed wind generation, up to 20-23% for 15,000MW - Requirements vary by season and time of day

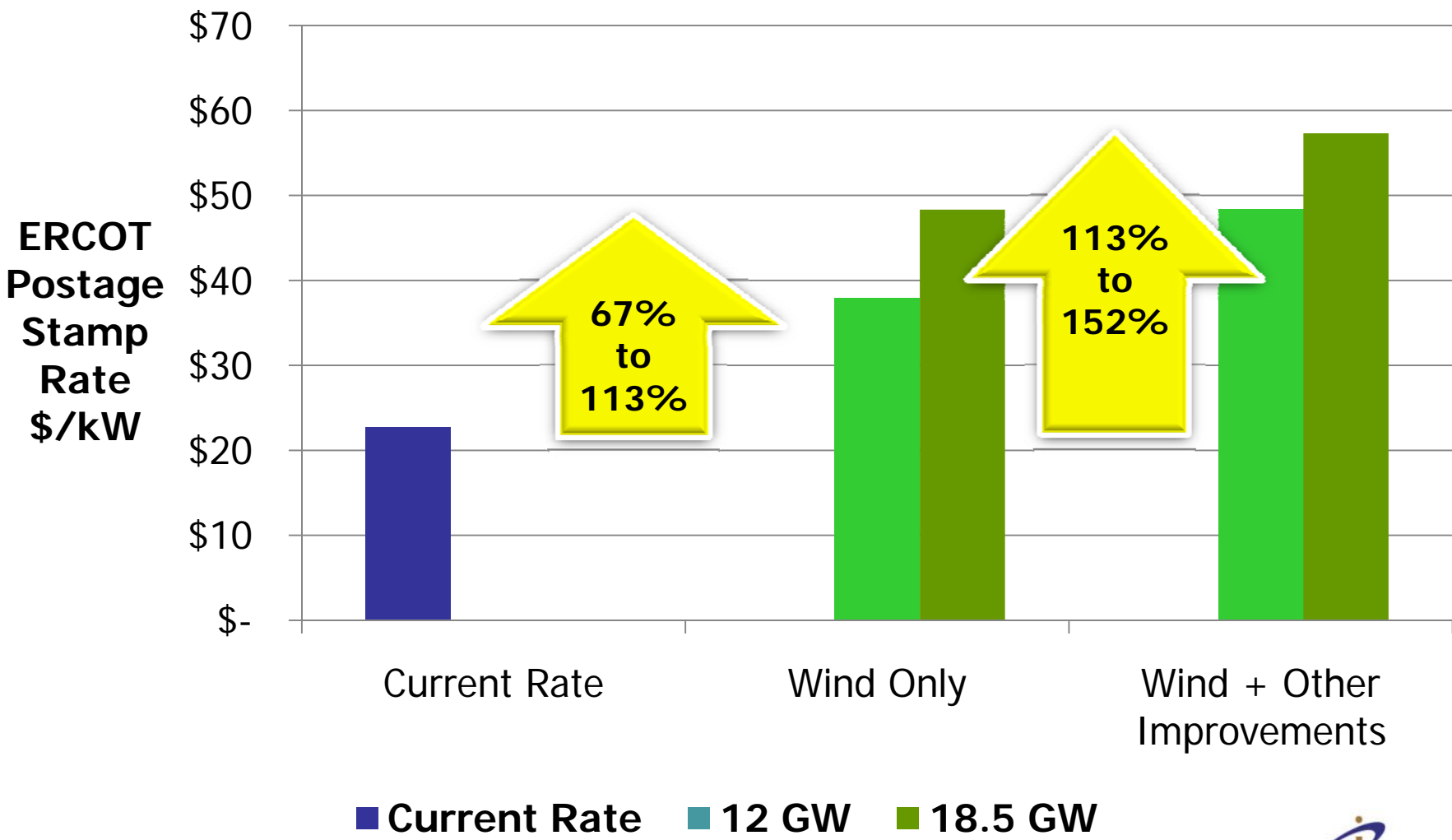
Remote Location New Transmission Investment

Scenario 1: \$4.7 Billion

Scenario 2: \$8.0 Billion

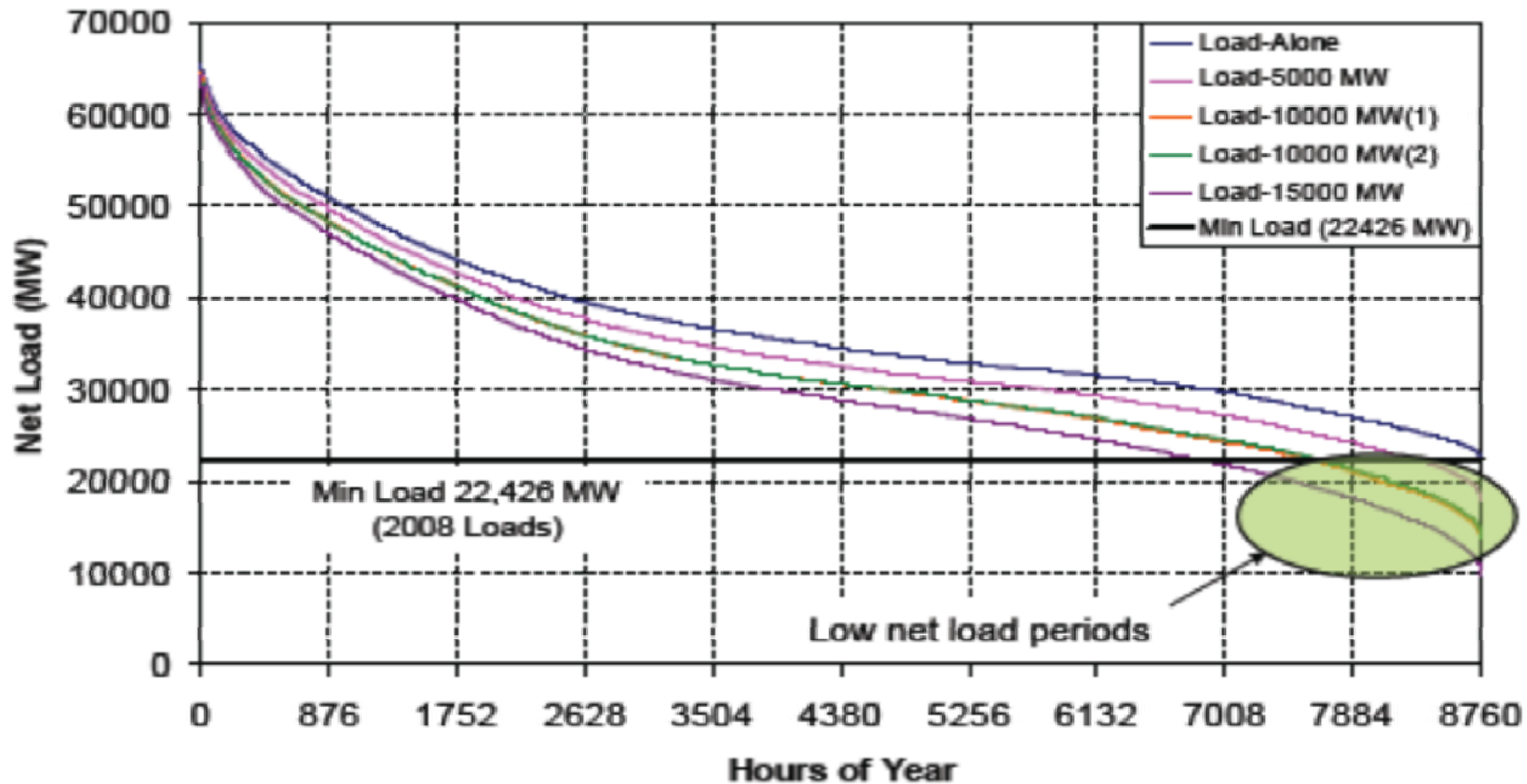
Preliminary estimates

Impact on Transmission Rates



Concentration: How Much Wind Can The System Tolerate?

Net Load Duration Curves for Various Wind Scenarios



Compounding the low growth in ERCOT minimum load, wind capacity has a significant impact on net load.

Contact Us

**12655 Olive Blvd
Suite 335**

St. Louis, MO 63141

P: 314-878-5814

F: 314-878-7339

C: 314-960-3901

Jeffry Pollock

jcp@jpollockinc.com

**1525 Lakeville Drive
Suite 217**

Kingwood, TX 77339

P: 281-348-9145

F: 281-348-9153

C: 713-303-1316

Martin Marz

mjm@jpollockinc.com