



# Local Congestion and OOME

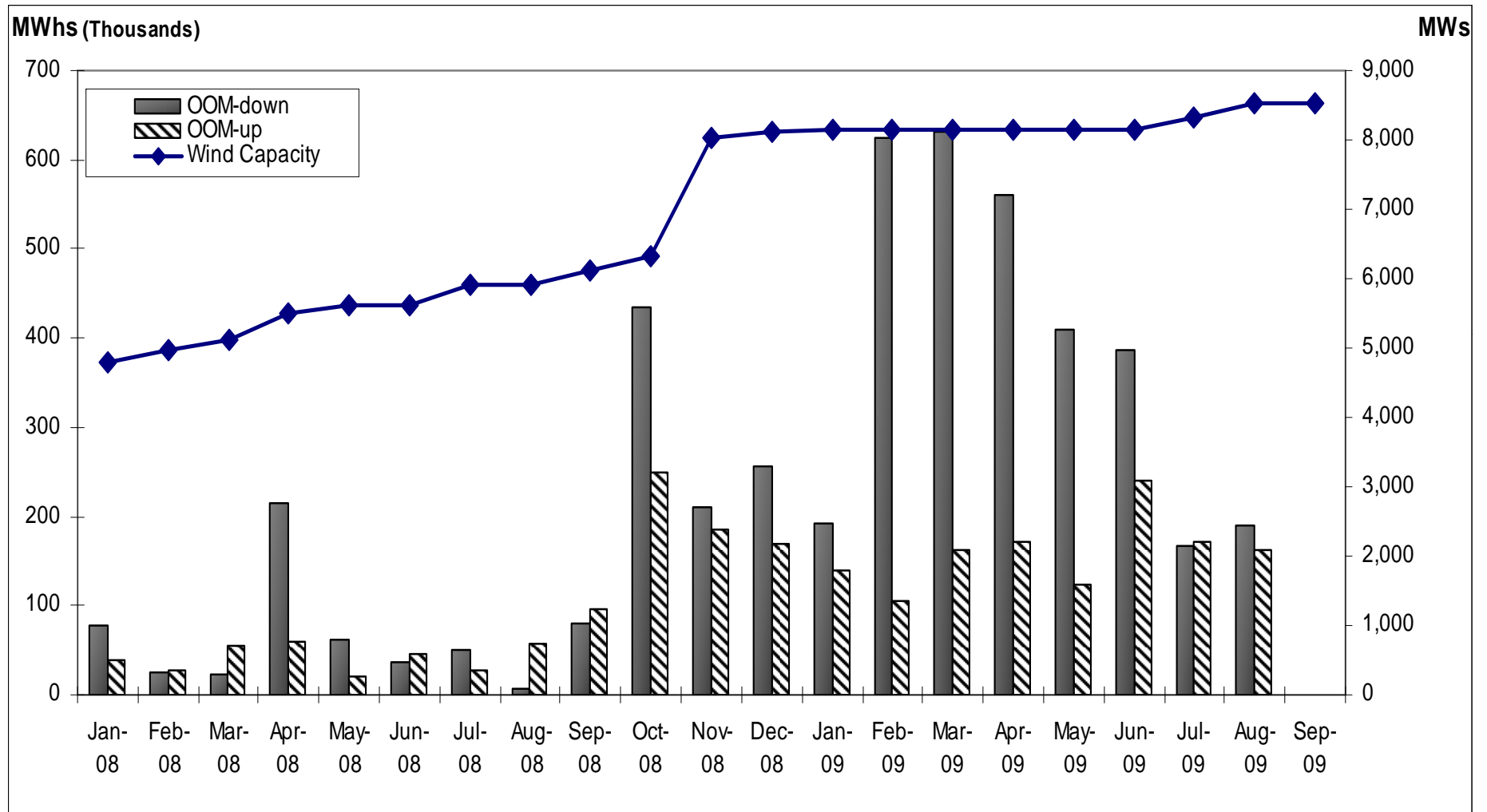
ERCOT Board of Directors  
October 20, 2009

**Kent Saathoff**

# Outline

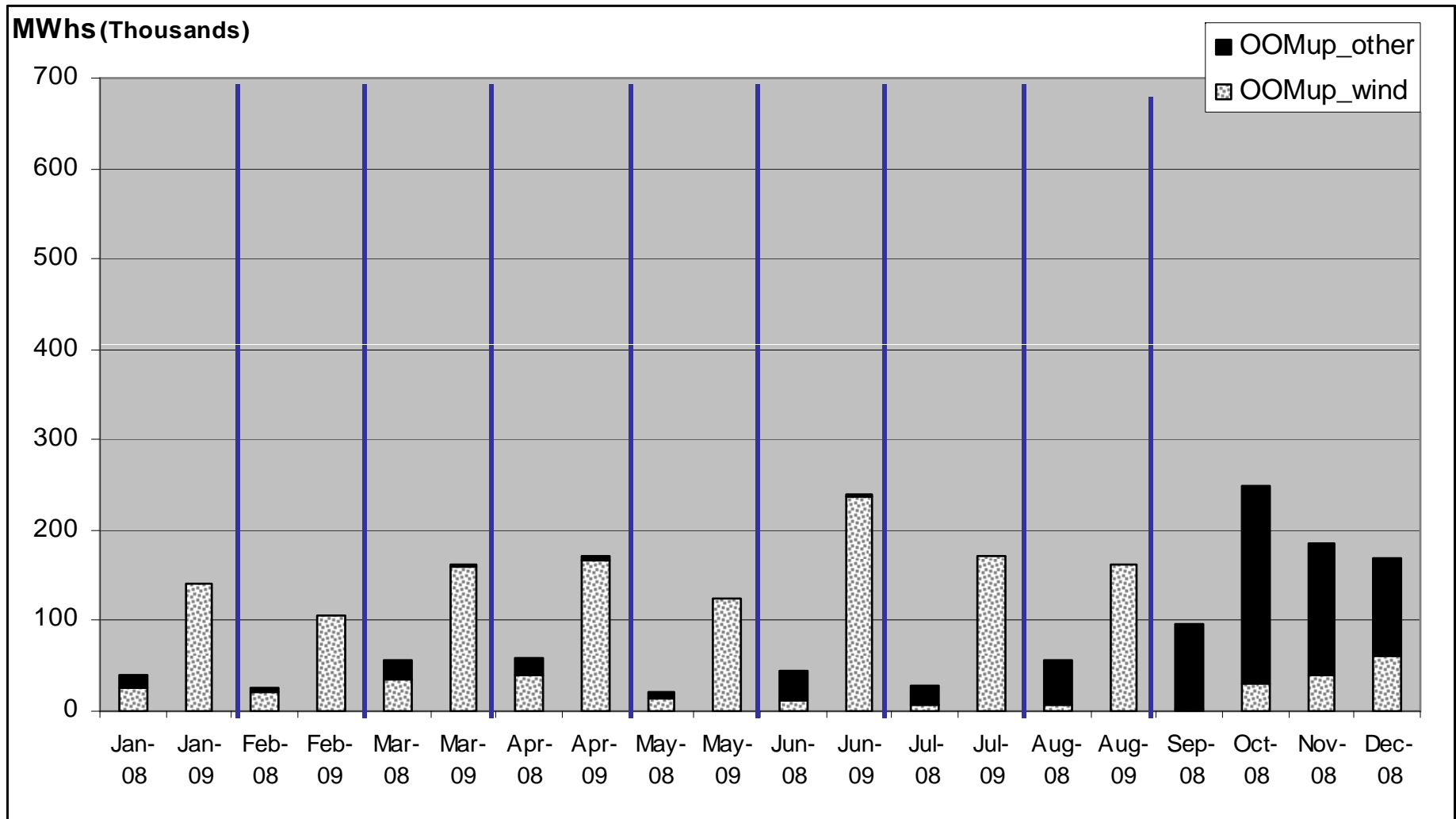
- **Review increase in local congestion and Out of Merit Energy (OOME) volume between 2008 and 2009**
- **OOME Classifications**
  - **OOME Up and OOME Down quantities are calculated relative to the Generator's Resource Plan**
  - **Negative prices result in Wind OOM Up quantities despite actual curtailment**
- **Drivers for increase**
  - **Increase in installed wind capacity from an average of 4,614MWs in January 2008 to 8,111MWs by the end of December 2008**
  - **2009 wind capacity currently at 8,515MWs concentrated with about 8,000 MW in the West Zone**
  - **Outage events**

# OOME & Wind Capacity



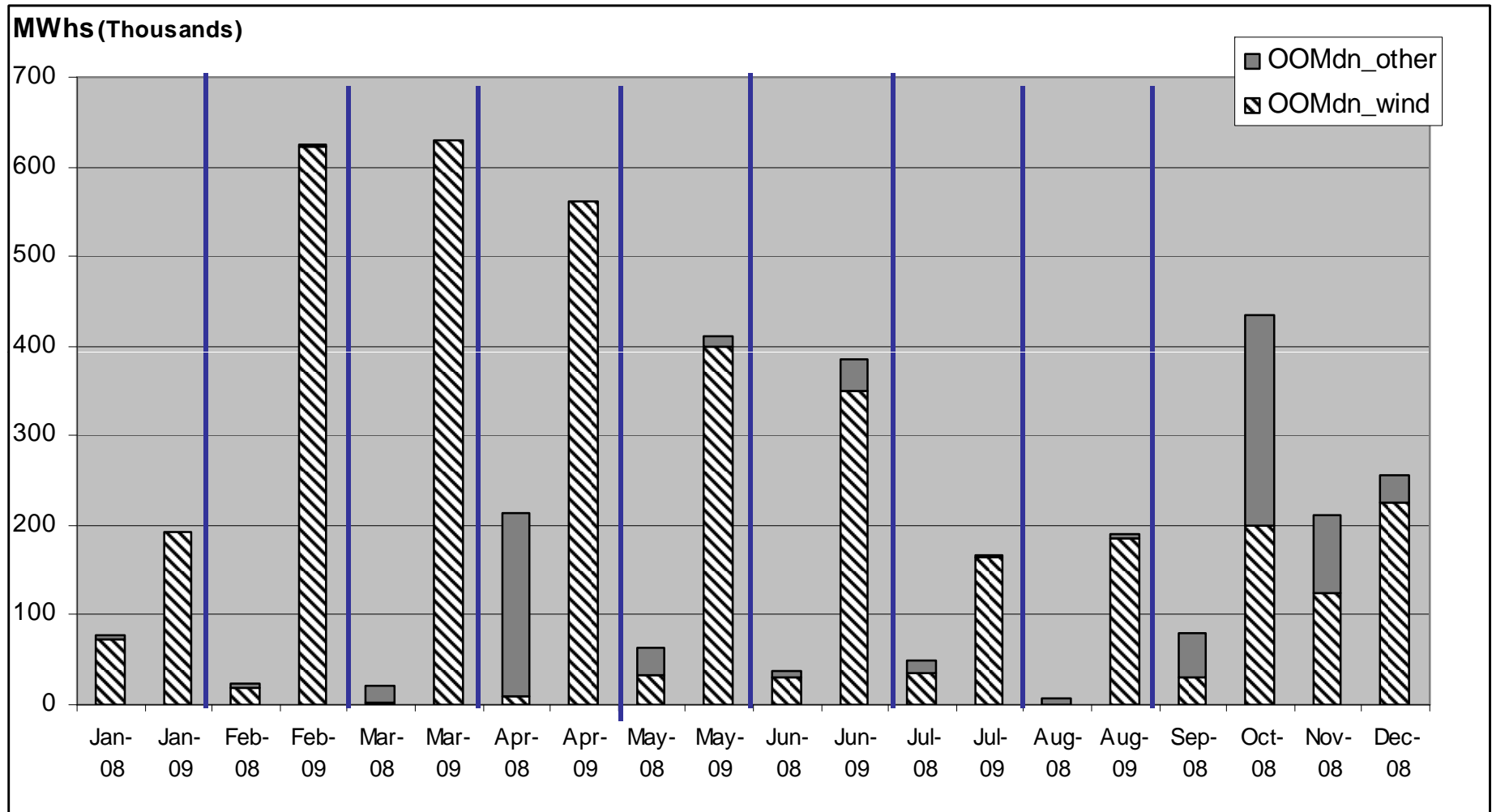
OOME volume shown in MWhs and installed wind capacity in MWs.

# OOME Up: 2008 & 2009 through August



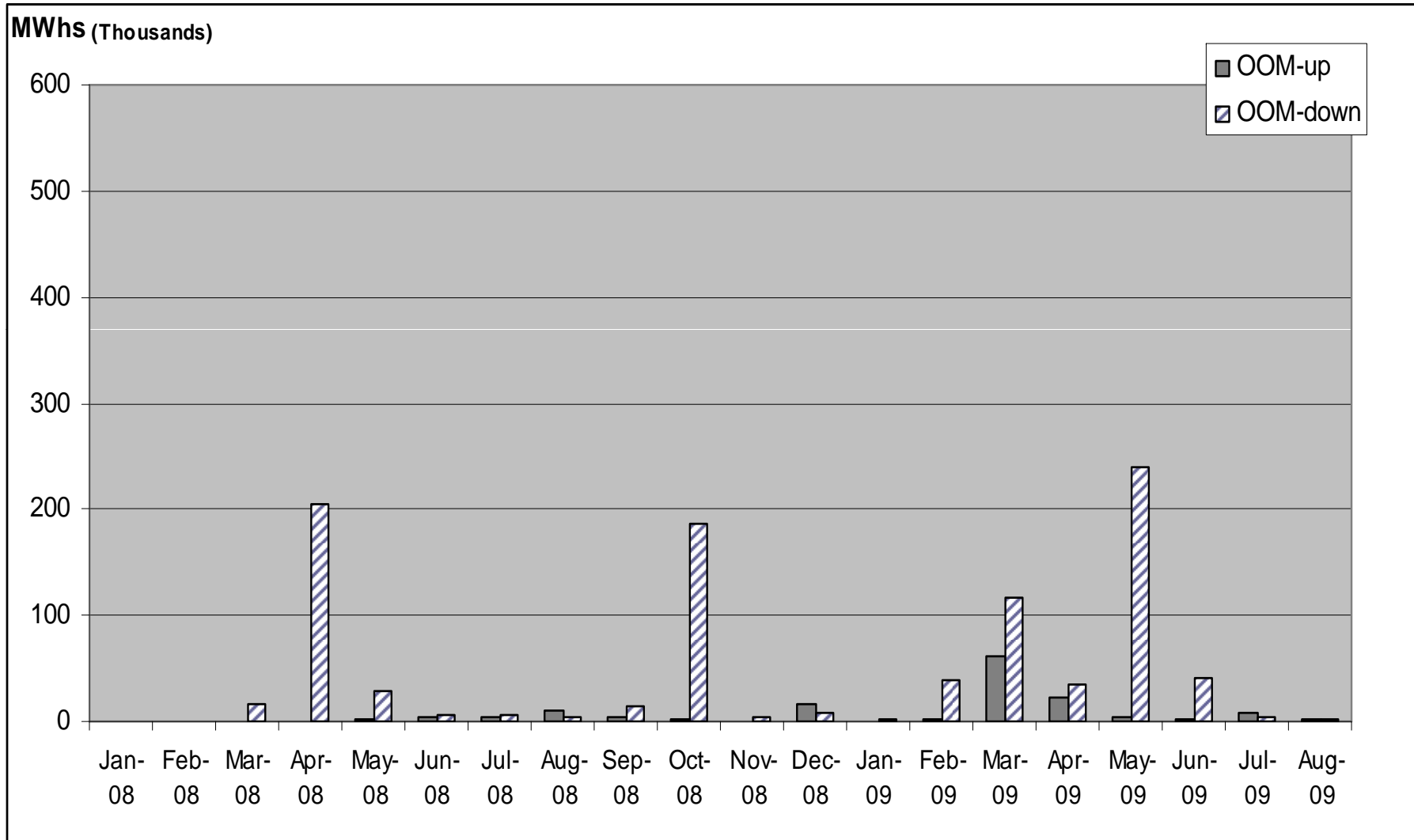
OOME Up volume shown in MWhs; West zone wind generation extracted.

# OOME Down: 2008 & 2009 through August

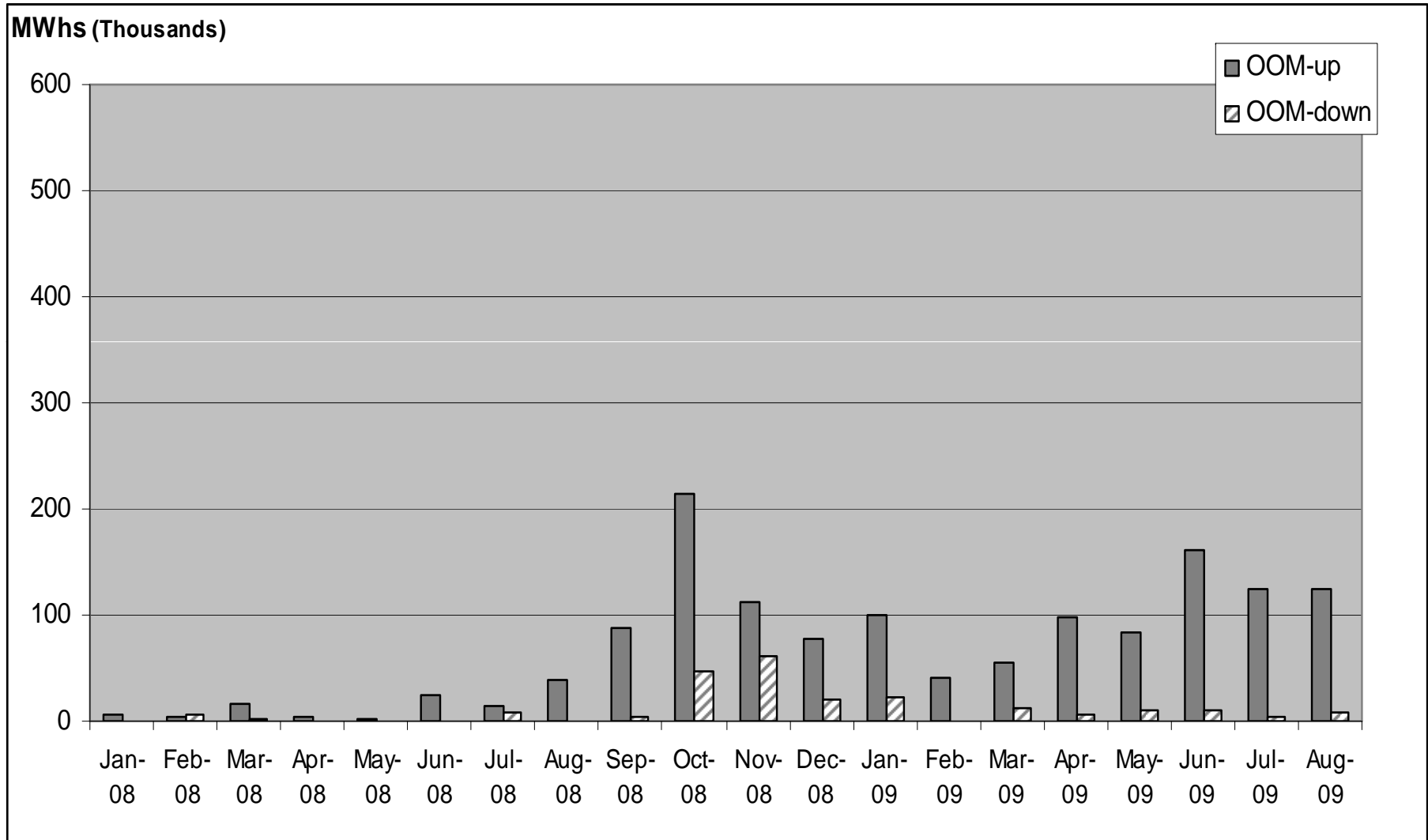


OOME Down volume shown in MWhs with West zone wind deployments extracted.

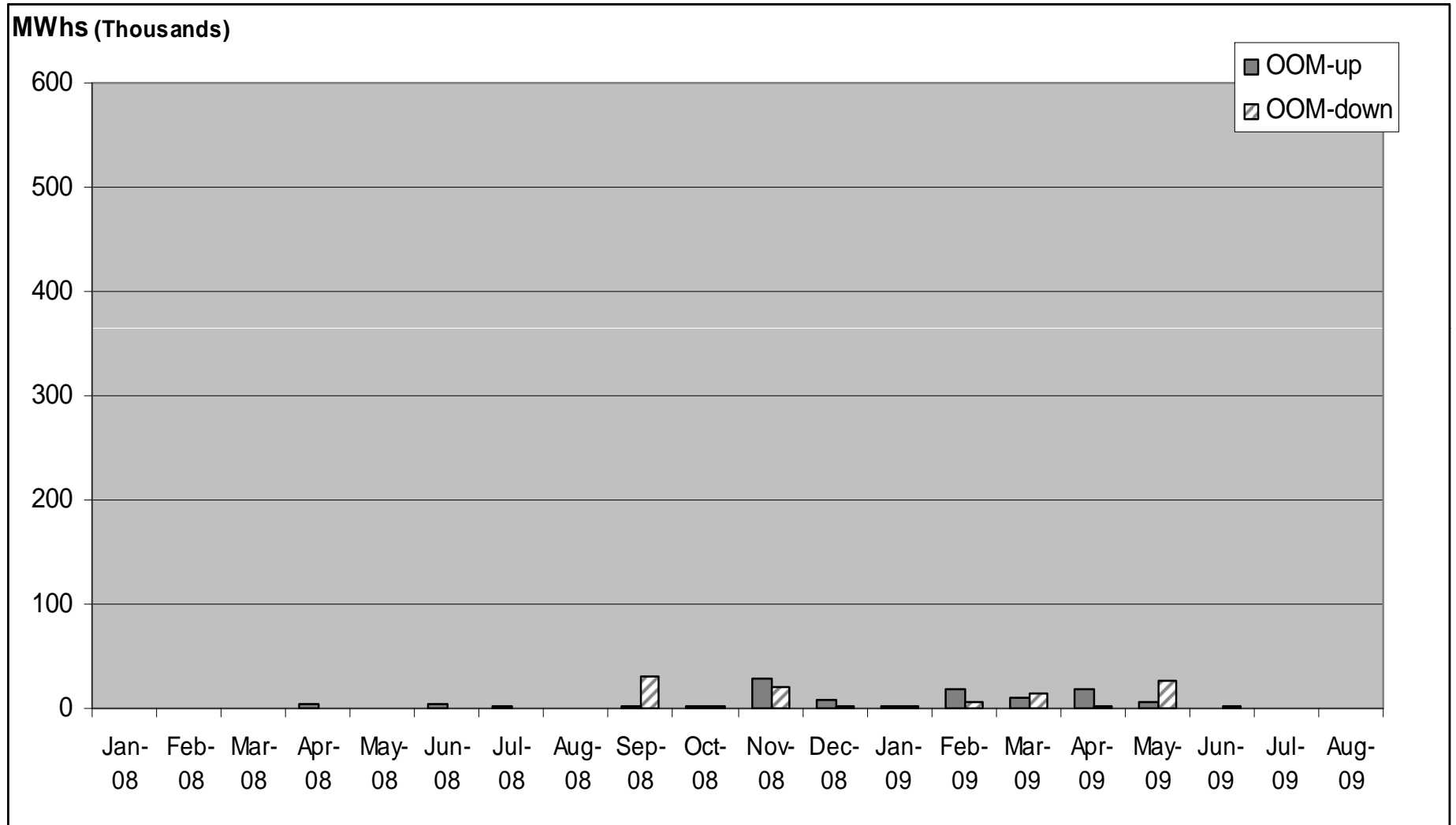
# OOME - North Zone



# OOME - South Zone

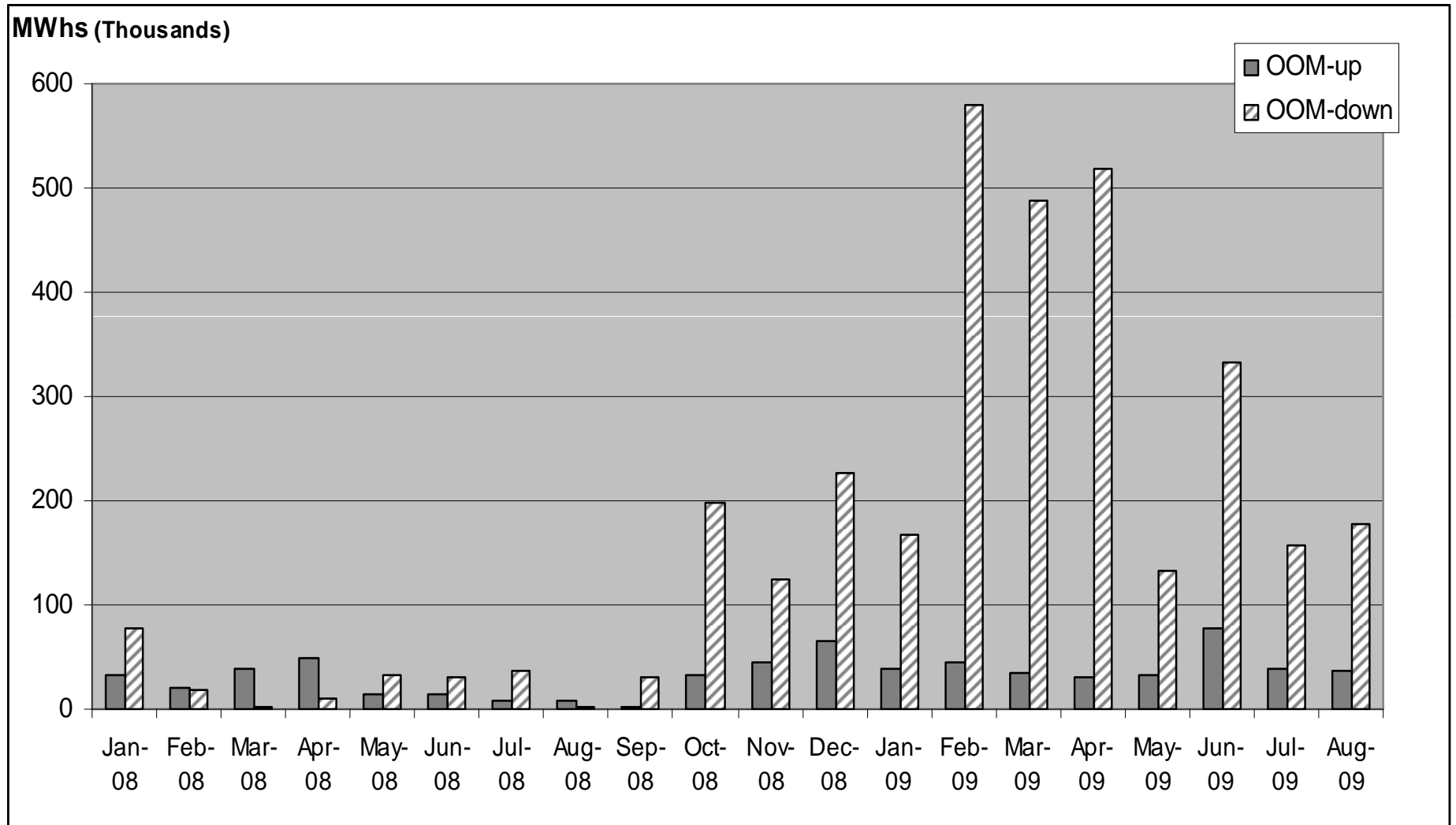


# OOME - Houston Zone





# OOME - West Zone



## In Summary

- **Increase in OOME instructions is a result of**
  - **Increase in installed wind capacity from an average of 4,614MWs in January 2008 to 8,111MWs by the end of December 2008 concentrated in the West zone**
  
  - **Outages taken to maintain and improve transmission system with the following projects:**
    - **Singleton 345kV Substation reconfiguration**
    - **Yellow Jacket Phase Shifting Transformer, addition**
    - **Rothwood 345/138kV Substation**
    - **Hutto - Salado new 345kV line**
    - **San Miguel - Lobo 345kV line**

# Congestion Relief

- Pending transmission projects that will mitigate congestion:

Congestion	Pending Improvement	Estimated Completion
San Angelo Power Station – Shrew 138kV Menard 138/69kV transformer	Yellow Jacket Phase Shifting Transformer (08TPIT0135)	December, 2009
Elgin Switch – Sandow Switch 138kV	Sandow Switch – Elgin Switch 138kV, rebuild (10TPIT0110)	October, 2010
Seguin – Zorn 138kV	Zorn/Clear Springs-Gilleland Creek-Hutto Switch 345kV line (08TPIT0020)	December, 2011
Abilene South – Ballinger 69kV	Abilene South – Ballinger 69kV, rebuild (08TPIT0080)	December, 2011
High wind generation	Numerous CREZ Projects	December, 2013