Market Operations Support

13 Month Review of Cost Summary

Joel Mickey, Manager

ERCOT System Operations

Top Ten Local Energy Deployment Cost by Local Constraints

Local Congestion Cost By Instruction Type by Day

ERCOT System Operations

Verified Actual RMR Cost*

RMR Net Cost (Initial Settlement)

RMR Cost (Initial Settlement)

13 Month Review of OOMC Cost At Final Settlement and True Up

Ancillary Service Deployment Cost

13 Month Review of Ancillary Service Deployment Cost

Average MCPE by Ancillary Service

Average MCPC by Ancillary Service

Average Deployment by Ancillary Service

10

13 Month Review of Average Deployment by Ancillary Service

Balancing Energy

Average Balancing Energy Deployed

Average UBES Deployment in Five Zones

Average DBES Deployment in Five Zones

13 Month Review of UBES Deployment

13 Month Review of DBES Deployment

Energy Purchased Through ERCOT

Total Daily Balancing Energy Scheduled for Purchase Through ERCOT (GWh)

13 Month Review of Total Balancing Energy Scheduled for Purchase through ERCOT (GWh)

Average Balancing Energy Scheduled for Purchase Through ERCOT by Interval (MW)

% of Total ERCOT Energy Requirement

Average BES Deployed: as a Percentage of Total Energy Requirement

13 Month Review of Average BES Deployed: as A Percentage of Total Energy Requirement

Average MCPE

Average MCPE in Four Zones

Average MCPE at Each Interval for Four Zones

13 Month Review of MCPE

Average Fuel Index

Average Shadow Price

Average Shadow Price

13 Month Review of Average Shadow Price

Cost Summary

Ancillary Service Capacity Cost

13 Month Review of Ancillary Service Capacity Cost

Ancillary Service Deployment Cost

13 Month Review of Ancillary Service Deployment Cost

OOMC Cost At Final

13 Month Review of OOMC Cost At Final Settlement and True Up

RMR Cost (Initial Settlement)

RMR Net Cost (Initial Settlement)

Verified Actual RMR Cost*

Total Local Congestion Costs by the Physical Location of Instructed Units

Total Local Congestion Costs by Instruction Type (in Million $)

Local Congestion Cost By Instruction Type by Day

Top Ten Local Energy Deployment Cost by Local Constraints

Cost Summary

13 Month Review of Cost Summary

Addendum: Map of Local Congestion Areas (charts on pages 30 & 31)
Acronyms

AS    Ancillary Service
BES   Balancing Energy Service
DBES  Down Balancing Energy Service
DRS   Down Regulation Service
LBE   Local Balancing Energy
MCPC  Market Clearing Price for Capacity
MCPE  Market Clearing Price for Energy
NSRS  Non-Spinning Reserve Service
OOMC  Out of Merit Capacity
OOME  Out of Merit Energy
QSE   Qualified Scheduling Entity
RMR   Reliability Must Run
RPRS  Replacement Reserve Service
RRS   Responsive Reserve Service
UBES  Up Balancing Energy Service
URS   Up Regulation Service

Grid Operation
Peak Demand for the Month: 2/16/07 7:15 51243

Peak Demand is Peak Interval Demand

Instances of CSC Congestion
Balancing Energy
Average Balancing Energy Deployed

Average UBES Deployment in Five Zones

Average DBES Deployment in Five Zones
### 13 Month Review of UBES Deployment

![UBES Deployment Graph]

### 13 Month Review of DBES Deployment

![DBES Deployment Graph]

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**Balancing Energy**

Energy Purchased Through ERCOT

(PPR404: Any Balancing Energy scheduled through the ERCOT Scheduling process)
Balancing Energy
% of Total ERCOT Energy Requirement
Balancing Energy

Average MCPE

Average MCPE in Four Zones

Average MCPE at Each Interval for Four Zones
13 Month Review of MCPE

Balancing Energy
Average Shadow Price
**Average Shadow Price**

**13 Month Review of Average Shadow Price**

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**Cost Summary**
Note: There is not a price for self-arranged Ancillary Services. MCPC is used to calculate the cost for self-arrangement.
OOMC Cost At Final

RPRS Step 1: RPRS procured for local congestion.
RPRS Step 2: RPRS procured for zonal congestion and capacity insufficiency.

13 Month Review of OOMC Cost At Final Settlement and True Up

RMR Net Cost (Initial Settlement)

Total Net Cost $2.72 Million
1. Trade dates thru 1/31/07 complete with Initial Settlement data, using estimated eligible costs.

2. Trade dates thru 12/15/06 complete with Final Settlement data, using verifiable actual cost data provided by the RMR Unit owner.
Cost Summary

Total with DBES: $47.44  Total without DBES: $78.67

Note:

1. DBES cost is a credit to system costs and therefore is shown as a negative number here to differentiate it from the other types of Reliability Costs.

2. BES deployment costs include two parts: the cost for Power Balance and the cost for CSC Congestion. Due to Relaxed Balanced Schedule, the cost paid for Power Balance covers both the difference between ERCOT load forecast and QSE's schedule and the amount of energy that QSEs intend to buy from Real-Time Energy market.

The historical data gathered from the monthly reports has been compiled into an Excel workbook which will be updated and posted along with this report at the following link:


Please contact Shuye Teng at 512-248-3998 or email at steng@ercot.com should you have any questions.
Addendum: Map of Local Congestion Areas (charts on pages 30 & 31)