OPERATIONS MONTHLY REPORT

June 2005

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ERCOT System Operations

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Market Operations Support
Acronyms

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<th>Description</th>
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<tr>
<td>AS</td>
<td>Ancillary Service</td>
</tr>
<tr>
<td>BES</td>
<td>Balancing Energy Service</td>
</tr>
<tr>
<td>DBES</td>
<td>Down Balancing Energy Service</td>
</tr>
<tr>
<td>DRS</td>
<td>Down Regulation Service</td>
</tr>
<tr>
<td>LBE</td>
<td>Local Balancing Energy</td>
</tr>
<tr>
<td>MCPC</td>
<td>Market Clearing Price for Capacity</td>
</tr>
<tr>
<td>MCPE</td>
<td>Market Clearing Price for Energy</td>
</tr>
<tr>
<td>NSRS</td>
<td>Non-Spinning Reserve Service</td>
</tr>
<tr>
<td>OOMC</td>
<td>Out of Merit Capacity</td>
</tr>
<tr>
<td>OOME</td>
<td>Out of Merit Energy</td>
</tr>
<tr>
<td>QSE</td>
<td>Qualified Scheduling Entity</td>
</tr>
<tr>
<td>RMR</td>
<td>Reliability Must Run</td>
</tr>
<tr>
<td>RPRS</td>
<td>Replacement Reserve Service</td>
</tr>
<tr>
<td>RRS</td>
<td>Responsive Reserve Service</td>
</tr>
<tr>
<td>UBES</td>
<td>Up Balancing Energy Service</td>
</tr>
<tr>
<td>URS</td>
<td>Up Regulation Service</td>
</tr>
</tbody>
</table>
Daily Peak Demand

Peak Demand for the Month: 6/30/05  16:45  58184

13 Month Review of Peak Demand

Peak Demand is Peak Interval Demand
Trend of Temperature in Five Congestion Management Zones

Relative Activity Capacity Purchases – OOMC & RMR

Note: 1 Unit-Day = 1 unit procured during any time period within one trade day.
### Total Number of Days of Local Congestion Management

#### Contingency | Congestion Element | Number of Days
--- | --- | ---
Gibbons Creek - Bryan E - Greens Prairie 138kV | TAM - Dansby 138kV | 30
Sandow - Austrop 345kV | Austrop Auto | 19
Odessa - Moss 138kV | Odessa - Huntsman 138kV | 13
Lytton Springs - Zorn - Austrop 345 | San Marcos-Canyon LCRA 138kV | 11
Marion - Zorn & Clear Spring 345kV | Zorn - Seguin 138kV | 9
Lewisville 345kV Auto | Carrollton NW - Lakepoint 138kV | 8
Frontera - South McAllen 138kV | North McAllen - West McAllen 138kV | 7
Hill Country - Marion - STP 345 | Marion - Skyline 345 | 7
Lytton Spring - Zorn & Austrop - Zorn 345kV | Zorn - Luling 138kV | 5
Bates Auto | North Edinburg – Moore Field 69kV | 3
Centerville - Forney 345kV | Lake Hubbard - Duck Creek Tap 138kV | 3
North Edinburg - Rio Hondo 345kV | South McAllen - Las Milpas 138kV | 3
Skyline - Marion & STP 345kV | Marion - Hill Country 345kV | 3
Allen - Renner & Plano Tennyson 345kV | Allen Switch - Plano Parker Road 138kV | 2
Allen Switch - Plano Tennyson & Renner Switch 345kV | Allen Switch - Plano Custer Road 138kV | 2
Buda - Turnersville 138kV | Kendall CTEC - Kendall 138kV | 2
McNeil AEN - Decker Power Plant 138kV | Decker - Sprinkle 138kV | 2
Sargent Rd - Watermill 345kV | Mt Creek - Cedar Hill 138kV | 2
Trinidad - Watermill & Trinidad - Tricorner 345kV | Trinidad Auto | 2

Note: 1 day = units procured during any time period within one trade day. Total numbers of 1 day or less of local congestion management are not shown in the graph. Occurrences of 1 day or less are not listed in table but are totaled in graph.

Blue fonts indicates a Remedial action plan has been developed for the element.
Instances of CSC Congestion

Number of intervals

EN  SN  NH  SH  NW  WN

Notable Events

New Procedures/ Forms/ Operations Bulletins

<table>
<thead>
<tr>
<th>Date</th>
<th>POB</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/30/2005</td>
<td>POB 189</td>
<td>Transmission &amp; Security Desk - Remedial Action Plans</td>
</tr>
<tr>
<td>06/30/2005</td>
<td>POB 187</td>
<td>Frequency Control Desk - Maintenance Level 2 and 3 Outages</td>
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<tr>
<td>06/30/2005</td>
<td>POB 186</td>
<td>Frequency Control Desk - Replace RRS through a Bilateral Trade.</td>
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<tr>
<td>06/30/2005</td>
<td>POB 185</td>
<td>Frequency Control Desk - South DC Tie</td>
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<tr>
<td>06/21/2005</td>
<td>POB 183</td>
<td>Transmission &amp; Security Desk - Manage Forced and Level 1 Maintenance Outages</td>
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<tr>
<td>06/21/2005</td>
<td>POB 181</td>
<td>T&amp;S Desk - Temporary Change: Maintenance Level 2 and 3 Outages.</td>
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<td>06/16/2005</td>
<td>POB 180</td>
<td>Transmission &amp; Security Desk V3R46 - OOME VDI Guidelines</td>
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<tr>
<td>06/16/2005</td>
<td>POB 179</td>
<td>T &amp; S Desk V3R45 - RTCA Congestion Management Call Out Procedure</td>
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<tr>
<td>06/16/2005</td>
<td>POB 178</td>
<td>Transmission &amp; Security Desk V3R44 - Remedial Action Plans</td>
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<td>06/14/2005</td>
<td>POB 177</td>
<td>Transmission &amp; Security Desk V3R43 - Mitigation Plans</td>
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<td>06/14/2005</td>
<td>POB 176</td>
<td>Transmission &amp; Security Desk V3R42 - Verbal Dispatch Instructions</td>
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<td>06/14/2005</td>
<td>POB 175</td>
<td>Frequency Control Desk V3R27 - Verbal Dispatch Instructions</td>
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<td>06/14/2005</td>
<td>POB 174</td>
<td>Frequency Control Desk - Use of LAARs to Arrest a Reportable Low Frequency</td>
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<tr>
<td></td>
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<td>Disturbance</td>
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<tr>
<td>06/06/2005</td>
<td>POB 172</td>
<td>Shift Supervisor Desk - QSE Transferring to Backup Control Center</td>
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<tr>
<td>06/06/2005</td>
<td>POB 171</td>
<td>Transmission &amp; Security Desk - Temporary Change for Western Area Action Plan</td>
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<tr>
<td>06/06/2005</td>
<td>POB 170</td>
<td>Day Ahead Desk - Modified Non Spin Procurement Methodology</td>
</tr>
<tr>
<td>06/02/2005</td>
<td>POB 169</td>
<td>The Transmission Outage Approval Process</td>
</tr>
</tbody>
</table>

Security Alert Stage/ Threatcon/ Related issues

None/Yellow

EECP Occurrence

None

Major Weather Related Power System Problems

None

Major system Voltage problems

None

Load Shed incidences

None
**Significant Communication Problems**

- **06/01/05**  Held 01:45 interval, SPD failed to solve.
- **06/08/05**  Extended Day ahead market to 15:00
- **06/14/05**  12:50 to 13:10 Portal down
- **06/23/05**  12:30 RTBM did not clear and the 12:15 interval was held.

**OCN, Advisory, Alert, Emergency Notice and Major Disturbances**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Type</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2-Jun</td>
<td>9:30-11:30</td>
<td>OCN</td>
<td>Capacity insufficiency for HE 1700 - 1800.</td>
</tr>
<tr>
<td>6-Jun</td>
<td>12:47-16:00</td>
<td>Transmission Alert</td>
<td>Loss of Elktor-Tricorner-Martin Lk loads Tyler NE- Tyler E.</td>
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<tr>
<td>7-Jun</td>
<td>09:59-17:00</td>
<td>OCN</td>
<td>Capacity insufficiency for HE 1600 - 1800.</td>
</tr>
<tr>
<td>10-Jun</td>
<td>16:50-20:30</td>
<td>Transmission Alert</td>
<td>Loss of San Miguel Tr. loads Derby-Pearsall.</td>
</tr>
<tr>
<td>14-Jun</td>
<td>13:45-14:45</td>
<td>Transmission Emergency</td>
<td>Bryan and College Station Area, force outage in area.</td>
</tr>
<tr>
<td>14-Jun</td>
<td>22:00-24:00</td>
<td>Advisory</td>
<td>Capacity shortage for 6/15.</td>
</tr>
<tr>
<td>15-Jun</td>
<td>08:00-16:00</td>
<td>Alert</td>
<td>Capacity Shortage in Resource Plans for HE 1600 - 1900.</td>
</tr>
<tr>
<td>15-Jun</td>
<td>00:09</td>
<td>Advisory</td>
<td>Capacity shortage for 06/15, HE 1600 - 1800.</td>
</tr>
<tr>
<td>16-Jun</td>
<td>00:25-20:00</td>
<td>Alert</td>
<td>Capacity Shortage in Resource Plans for hours 1600 - 1900.</td>
</tr>
<tr>
<td>25-Jun</td>
<td>03:44-0600</td>
<td>OCN</td>
<td>Capacity shortage for HE 17:00 -19:00.</td>
</tr>
<tr>
<td>25-Jun</td>
<td>0600-12:00</td>
<td>Alert</td>
<td>Capacity Shortage in Resource Plans for HE 1700 - 1900.</td>
</tr>
<tr>
<td>27-Jun</td>
<td>01:02-18:30</td>
<td>OCN</td>
<td>Capacity insufficiency for HE 1400 - 1800.</td>
</tr>
<tr>
<td>27-Jun</td>
<td>14:06-21:00</td>
<td>Transmission Alert</td>
<td>Loss of San Miguel Tr. loads Derby-Pearsall.</td>
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<tr>
<td>28-Jun</td>
<td>15:56-20:30</td>
<td>Transmission Alert</td>
<td>Loss of Tyler West - Elktor loads Tyler West Tr.</td>
</tr>
<tr>
<td>28-Jun</td>
<td>02:05-17:15</td>
<td>OCN</td>
<td>Capacity shortage for HE 1600 - 1800.</td>
</tr>
<tr>
<td>28-Jun</td>
<td>08:40-17:15</td>
<td>OCN</td>
<td>Capacity shortage for HE 1600 -1900.</td>
</tr>
</tbody>
</table>

**New SPS & RAP's**

None
Major Computer System Problems/Enhancements/Fixes

06/15/05   EMS migration of Release 4 at 09:00.

Update on New Generation

18 MW wind resource in the West Zone outside of the McCamey area.

Max / Min Temperature

Max:  106.5°F   FW
Min:  60.8°F     W
Market Operation

Ancillary Services
Average MCPC by Ancillary Service

13 Month Review of Average MCPC by Ancillary Service
Balancing Energy

Average Balancing Energy Deployed
Balancing Energy
Energy Purchased Through ERCOT

(PRR404: Any Balancing Energy scheduled through the ERCOT Scheduling process)
Average Balancing Energy Scheduled for Purchase Through ERCOT by Interval (MWh)
Balancing Energy
% of Total ERCOT Energy Requirement
Balancing Energy
Average MCPE
13 Month Review of MCPE

Trend of Average Fuel Index

$/MW
Balancing Energy
Average Shadow Price
Cost Summary
Ancillary Service Capacity Cost

13 Month Review of Ancillary Service Capacity Cost

Note: There is not a price for self-arranged Ancillary Services. MCPC is used to calculate the cost for self-arrangement.
Ancillary Service Deployment Cost

Total w/DRS: $-1.89 Million  Total w/o DRS: $5.50 Million

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

- **Start-Up Payment (Total: $2.29 Million)**
- **Total OOMC Payment (Total: $8.06 Million)**

**Totals are for time range of the chart.**

- **Total OOMC Payment (Total: $70.26 Million)**
*Note:

1. Trade dates thru 6/30/05 complete with Initial Settlement data, using estimated eligible costs.

2. Trade dates thru 4/20/05 complete with Final Settlement data, using verifiable actual cost data provided by the RMR Unit owner.
### Total Local Congestion Costs by Area

**Total: $14.98 Million**

- **DFW**: $6.30
- **NORTH**: $2.83
- **HOUSTON**: $1.04
- **WEST**: $0.73
- **MCCAMEY**: $0.04
- **CENTEX**: $3.20
- **CORPUS**: $0.03
- **SOUTH**: $0.40
- **VALLEY**: $0.41
- **SOUTH**: $0.40

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

- **OOMC**: $1.23
- **LBE-operate at or below a level**: $0.51
- **LBE-operate at or above a level**: $1.52
- **LBE-hold at a level**: $8.06
- **Manual OOME DN**: $3.41
- **Manual OOME UP**: $0.25
Local Congestion Cost By Instruction Type by Day

Total $ 14.98 Million

- LBE-hold at a level
- LBE-operate at or above level
- LBE-operate at or below level
- Manual OOME Up
- Manual OOME Dn
- OOMC

Million $
Top Ten Local Congestion Constraints

Total: $6.08 Million

Contingency
- Austrop Sandow SES 345
- OC2* Lytton Springs-Zorn & Austrop-Zorn (Zorn T1)
- Gibbons Creek Bryan Greens Prairie 138
- Allen Switch Renner Switch 345
- Allen Switch Renner & Plano Tennyson 345
- OC2 **Dhilmar5 (Mar_Sky @ Marion) & Dmarsky5 (293t304 @Cibolo)
- Odessa Ehv Switch Moss Switch 138
- Frontera South McAllen 138
- Lake Pauline Auto Tr. 345/138
- Lytton Spring-Zorn 345

Overloaded Element
- Austrop Auto Tr. T1 345/138
- Texas A&M-Dansby 138
- Plano Parker Rd Allen Switch 138
- Allen Switch-Plano Custer Rd 138
- Odessa Ehv Switch Huntsman 138
- North McAllen-West McAllen 138
- Vernon-Grayback 69
- Zorn-Luling 138

Note: OC2s have several possible contingency and overloaded element pairs

* Loss of Lytton Spring -Zorn & Austrop - Zorn 345 Kv Overloads:
  a. Zorn - Luling 138kv
  b. San Marcos - Canyon LCRA 138kv

** Loss of Marion - Hill Country - Skyline 345kv Overloads:
  a. Three Rivers Auto Transformer 345kv/138kv
  b. Schertz - Parkway LCRA 138kv
  c. Hays Energy - Kendall 345kv
  d. Marion - Hill Country 345kv
Cost Summary

Total with DBES: $138.75
Total without DBES: $158.00

13 Month Review of Cost Summary

Totals are for time range of the chart.
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.

Please contact Shuye Teng at 512-248-3998 or email at steng@ercot.com should you have any questions.