SUMMER OPERATIONS RECAP

INTRODUCTION BY:
Cris Eugster
Chief Operating Officer (COO)

PRESENTED BY:
Operations Executives

October 29, 2018
Informational Update
AGENDA

• RECORD SUMMER TEMPERATURES
• GREAT PLANT PERFORMANCE
• MARKET & FINANCIAL PERFORMANCE
• DELIVERY & RELIABILITY PERFORMANCE
• GAS SYSTEM
STARS ALIGNED
STRONG OPERATIONAL & FINANCIAL PERFORMANCE

Plants & Resources

The Market

Our People
# RECORD SUMMER TEMPERATURES

<table>
<thead>
<tr>
<th>May 2018</th>
<th>June 2018</th>
<th>July 2018</th>
<th>August 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong></td>
<td><strong>M</strong></td>
<td><strong>T</strong></td>
<td><strong>W</strong></td>
</tr>
<tr>
<td>1</td>
<td>102°</td>
<td>100°</td>
<td>100°</td>
</tr>
<tr>
<td>2</td>
<td>93°</td>
<td>96°</td>
<td>97°</td>
</tr>
<tr>
<td>3</td>
<td>95°</td>
<td>97°</td>
<td>98°</td>
</tr>
<tr>
<td>4</td>
<td>97°</td>
<td>98°</td>
<td>99°</td>
</tr>
<tr>
<td>5</td>
<td>99°</td>
<td>100°</td>
<td>100°</td>
</tr>
<tr>
<td>6</td>
<td>101°</td>
<td>103°</td>
<td>102°</td>
</tr>
</tbody>
</table>

- 27 days above 100°
- 85 days above 95°
- July was 3.8° hotter than average

**Indicates record for that day**

- 95° to <100°
- 100° or above
Both ERCOT and CPS Energy broke all-time peak demand records in July 2018.
CPS Energy successfully partnered with 140,000 residential & 560 Commercial & Industrial customers across our community to manage demand during the hottest days.
PRESENTED BY:
Benny Ethridge
Senior Vice President, Power Generation
STRONG DIVERSITY
DELIVERING OPERATIONS EXCELLENCE

Plants delivered during the Summer run

CPS Wind Plants (PPA)
1,059 MW
Wind

CPS Solar Plants (PPAs)
550 MW
Solar

Spruce Plants
1,345 MW
Coal

Sommers Plants
830 MW
Gas
Deely Plants
840 MW
Coal

Braunig Plants
859 MW
Gas

AVR Plant
492 MW
Gas

Milton B Lee Plants
373 MW
Gas

Rio Nogales Plant
785 MW
Gas
GENERATION AVAILABILITY
MAY THRU SEPTEMBER PERFORMANCE

We also delivered when market prices were high with Summer Portfolio Commercial Availability at 94.5%
OUR PLANTS ARE AGING

Almost 40% of our capacity comes from plants that are 40+ years old

Proactive maintenance and solid budget controls are required to effectively manage investments in aging units
2018 SUMMER
DRIVING OPERATIONS EXCELLENCE

PEOPLE
- Plant-centric structure
- Subject matter experts
- Enhanced training

Accountability & execution

PROCESS
- Procedures & checklists
- Work management system
- Behavioral-based safety
- Peer-to-peer checks

Safe & consistent work practices

PLANT
- On-line monitoring
- Condition-based maintenance
- Strategic outages

Reliability

Reliable, competitively priced power to meet the needs of our Customers
MARKET PERSPECTIVE

PRESENTED BY:
John Bonnin
Vice President, Energy Supply & Market Operations (ESMO)
POWER GENERATION AND ESMO PARTNERSHIP

ENERGY SUPPLY & MARKET OPERATIONS (ESMO)

POWER GENERATION
2018 SUMMER

AVAILABILITY WHEN PRICES RISING

Plant Availability When Prices Exceed $75 per MWh

- COAL: 91%
- GAS CC: 100%
- GAS PEAKERS: 96%
- GAS STEAM: 88%
- SOLAR: 72%
- WIND: 25%
High prices in the ERCOT market provided opportunity to earn revenue from off system sales.
Our diverse generation portfolio protects customers from high prices caused by the tight reserves position. Peak load is reduced by demand response programs.

*Demand Response programs: 197 MW; without it peak would have been 5,134 MW in hour 4-5 PM
ELECTRIC DELIVERY PERSPECTIVE

PRESENTED BY:
Paul Barham
Senior Vice President, Delivery Engineering, Integrated Planning, Substation & Transmission
&
Rudy Garza
Senior Vice President, Distribution Services & Operations
SUMMER READINESS

SUMMER PREPAREDNESS ACTIVITIES

Safety Training
- Snake bite awareness
- Heat Stress
- Hydration

Operational
- Inspections & testing
- Load shed plan updates
- Load flow analysis

Equipment/Vehicle
- Inventory checks
- Personal voltage detector checks
- Vehicle checks

Preparation for high heat levels reinforced system performance in the Summer months.
TRANSMISSION PERFORMANCE

• Close coordination with ERCOT during Summer months
• No events impacted customer load
• Good performance through Summer storms
DISTRIBUTION 24/7/365

• Summer heat stressed the system
• Hot summer transitioned into September storms
• System reliability was challenged

Overall system performance is favorable.
## RELIABILITY METRICS

### SEPTEMBER LIGHTNING & RAIN IMPACT

<table>
<thead>
<tr>
<th>Month</th>
<th>Rainfall</th>
<th>SAIDI</th>
<th>SAIFI</th>
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</thead>
<tbody>
<tr>
<td>Sep. FY18</td>
<td>2.8 in</td>
<td>4.67</td>
<td>0.07</td>
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<tr>
<td>Sep. FY19</td>
<td>16.82 in</td>
<td>8.41</td>
<td>0.12</td>
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<tr>
<td>Metric % Increase</td>
<td>80%</td>
<td>71%</td>
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SAIDI reliability metric is at risk due to weather impacts

Weather headlines retrieved from [http://www.ksat.com](http://www.ksat.com)

Combined Benchmarking First Quartile & Southern Company 2016 Data

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![Map showing Sept. Lightning Strikes]

FY18  127  
FY19  10,000

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![Graph showing SAIDI and SAIFI metrics]

**SAIDI**

<table>
<thead>
<tr>
<th># of minutes</th>
<th>FY18</th>
<th>FY19 Projection</th>
</tr>
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<tbody>
<tr>
<td>75.00</td>
<td>53.97</td>
<td>54.75</td>
</tr>
<tr>
<td>65.00</td>
<td>55.00</td>
<td></td>
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<tr>
<td>55.00</td>
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<tr>
<td>45.00</td>
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<td>35.00</td>
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<td>25.00</td>
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<td>15.00</td>
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<tr>
<td>5.00</td>
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**SAIFI**

<table>
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<tr>
<th>Metric</th>
<th>FY18</th>
<th>FY19 Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Decile</td>
<td>0.83</td>
<td>0.87</td>
</tr>
<tr>
<td>1st Q</td>
<td>0.87</td>
<td>1.01</td>
</tr>
<tr>
<td>2nd Q</td>
<td></td>
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</tbody>
</table>

Top Quartile Metric Target = .86

Top Decile Metric Target = 61.00

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Weather headlines retrieved from [http://www.ksat.com](http://www.ksat.com)
USING TECHNOLOGY TO IMPROVE RESTORATION

VIDEO
GAS PERSPECTIVE

PRESENTED BY:
Frank Almaraz
Senior Vice President, Commercial Operations
As construction activity increases in the summer, Gas Delivery focuses on Public & Employee Safety Awareness & preventative maintenance activities.
GAS DELIVERY
CONTINUOUSLY IMPROVING COMMUNITY SAFETY

Response Time to Odor Complaints (% < 30 Mins)

<table>
<thead>
<tr>
<th>Year</th>
<th>CY16</th>
<th>CY17</th>
<th>YTD CY18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response Time</td>
<td>87.3%</td>
<td>87.8%</td>
<td>89.44%</td>
</tr>
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</table>

Top Decile

CPS Energy ranks #1 among our Big 4 peers in Texas in Response Time metric performance

Source: 2017 American Gas Association Annual Benchmark Study
Gas Delivery is currently underway with seasonal preparedness activities for their winter peak season.
GREAT EXECUTION = SUCCESSFUL PERFORMANCE

The Market

Plants & Resources

Our People

ERCOT Daily Average Price

Record Breaking Temperatures

Record Breaking Precipitation

Preparing for Winter & Gas Peak Season
Thank You