GULF POWER COMPANY

Presentation before the

FLORIDA PUBLIC SERVICE COMMISSION

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September 12th, 2017
Gulf Power 2017 TYSP Overview

- Economic Outlook
- Fuel Forecast Outlook
- Renewables Update
- Gulf’s 2017 TYSP Next Resource Need
Economic Outlook

Total Households

0 50,000 100,000 150,000 200,000 250,000 300,000 350,000 400,000 450,000 500,000

Forecast

Gulf Power
Customer and Use Per Customer Outlook

Weather Normalized Residential Use Per Customer

Forecast
Retail Load Outlook

Retail Energy Sales (GWh)

History (WN) Forecast
2017 versus 2016 Fuel Price Forecast

- **Nominal Coal Prices** *(delivered to Gulf)*
  - Annual average rate of price increase over 10 year period has declined
    - 3.9% for 2016
    - 1.6% for 2017

- **Nominal Natural Gas Prices** *(delivered to Gulf)*
  - Annual average rate of price increase over 10 year period has declined
    - 10.4% for 2016
    - 5.2% for 2017
Gulf Power’s Military Solar Update

30 MW Eglin project (Air Force – Okaloosa County)
• 5/11/17 – On-Line
  ▪ Projected 2018 output – Approx. 60,000 MWhs
  ▪ Energy to serve approx. 4,500 homes

40 MW Holley project (Navy – Santa Rosa County)
• 6/16/17 – On-Line
  ▪ Projected 2018 output – Approx. 81,000 MWhs
  ▪ Energy to serve approx. 6,100 homes

50 MW Saufley project (Navy – Escambia County)
• 7/18/17 – On-Line
  ▪ Projected 2018 output – Approx. 99,000 MWhs
  ▪ Energy to serve approx. 7,400 homes
Gulf Power’s Military Solar Update

30 MW Eglin project (Air Force – Okaloosa County) 226 Acres
Gulf Power’s Military Solar Update

40 MW Holley project (Navy – Santa Rosa County) 330 Acres
Gulf Power’s Military Solar Update

50 MW Saufley project (Navy – Escambia County) 438 Acres
Kingfisher Wind Energy Purchase Agreements

- 1/01/16 – King I Agreement - energy deliveries began.
  - 89 turbines; 2 MWs each (178 MWs)
- 2/01/17 – King II agreement - energy deliveries began.
  - 47 turbines; 2 MWs each (94 MWs)
- Projected 2018 combined output – Approx. 1,030,500 MWhs
Gulf Power’s Generation Sources Serving Load

<table>
<thead>
<tr>
<th>Year</th>
<th>Fossil</th>
<th>Renewables</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>93.7%</td>
<td>6.3%</td>
</tr>
<tr>
<td>2017</td>
<td>89.8%</td>
<td>10.2%</td>
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<tr>
<td>2018</td>
<td>89.1%</td>
<td>10.9%</td>
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Gulf 2017 TYSP Need Year Driver

Driver - 2023 Expiration of Gulf’s 885 MW PPA

Gulf Power Reserve Margin

Target Reserve Margin

Forecasted Reserve Margin

Target Reserve Margin

Forecasted Reserve Margin
Factors Considered

- Technology Type
- Fuel
- Transmission
- Site Factors
- Performance
Technologies Under Consideration for Next Resource

Natural Gas-Fired

• **Combustion Turbine (CT)**
  - Lower installed cost ($/kW) & higher energy cost ($/MWh) than CC

• **Combined Cycle (CC)**
  - Better efficiency, lower energy cost ($/MWh) but at higher installed cost ($/kW) than CT

**Evaluation Components:**

• Capital Costs
• Operations and Maintenance Costs
• Energy and Capacity Value
Site and Technology screening

- 2 technologies (CC and CT) across 6 site locations.
- Preliminary screening studies:
  - North Escambia and Smith favorable sites for CTs
  - North Escambia favorable site for CC

Gulf’s 2017 TYSP Technology shown as CTs, but CC is possible

- Updated studies underway to identify technology and site for next self-build.
- Final results for technology and site selection anticipated in 2018.
Questions