

Wholesale Electric Power Transactions

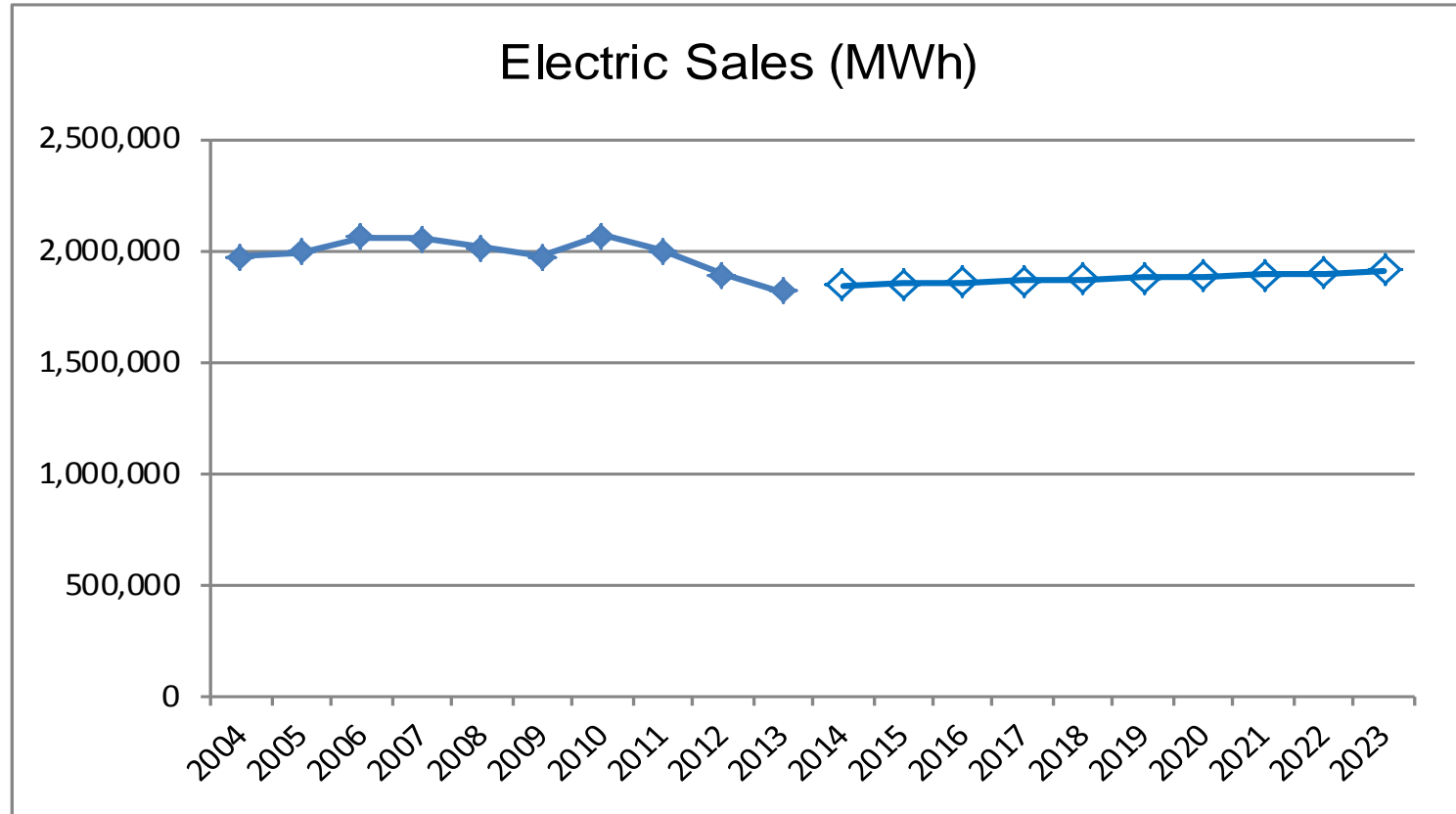
GRU/Winter Park Interlocal Agreement

What Problem Are We Trying to Solve

Wall Street Journal: “Home electricity use in U.S. falling to 2001 levels”

- Electric consumption in U.S. homes has fallen to lowest levels since 2001
- Power usage is on track to decline for third year in a row
 - Better homes and building codes
 - More efficient gadgets and appliances
- <http://online.wsj.com/article/AP2904cca1816e49fc808eb2e64f89615e.html>

Sales History/Forecast



Wholesale vs. Retail Sales

Retail

Cost Based

GRU has the obligation to pay the fixed cost of their assets and the variable cost of production (almost all fuel cost) to operate them

GRU rates must cover the full cost (fixed + variable)

Wholesale

Price Based

Potential wholesale power purchasers have no obligation to buy Capacity and Energy from GRU

Wholesale Capacity and Energy prices must be such that they:

1. Cover the seller's variable cost of production and provide a contribution to fixed cost
2. Must be such that the purchaser is willing to obligate themselves to pay

There are two fundamental parts of a Wholesale Power Transaction

- **Energy**

The incremental cost of electricity itself

- **Capacity**

The portion of generating capability reserved to deliver energy

Wholesale Power Sale Structure Alternatives

Customer Power Requirements	Other Customer Requirements	Energy Pricing Alternatives	Capacity Pricing Alternatives	Transmission Pricing	Ancillary Svcs. Pricing Alts.
Block Power	Transmission	GRU System Average Cost	Capacity	By Tariff	Price individually by flat fee, MW or MW-h as appropriate
Example: must take 10 MW, 24 x 365	Point to Point or Network Service		Example: \$5/kW-month. For 10 MW capacity the customer would pay \$5,000/mo.		
Call Option	Ancillary Services	GRU System Average Cost +/- Premium/Discount	Demand		Bundle some or all into the Capacity Charge.
Example: day ahead call on up 25 MW in 5 MW increments for a minimum of 4 hours	Scheduling, Control & Dispatch	Fixed Price			
	Regulation & Frequency	Fixed Price adjusted to one or more fuel index			
	Spinning Reserve				
Load Following	Supplemental Reserve	Example: \$ 30/MW-h adjusted by the FERC Zone 3 Gas Index	Example: \$5/kW demand. The customer pays based on the highest 15 minute integrated demand during the month, which may be less than the maximum allowed (i.e., could demand 7 MW when the available capacity was 10 MW)		
Power delivered follows customer's dynamic load	Point of Delivery Change	Heat Rate + Fuel Index			
	Line Loss Correction Charge	Example: 11,500 BTU/kW-h x (\$/mmBTU gas at Henry Hub + \$0.20 transportation cost)			
			Capacity + Demand		
			Combination of the two with a lower capacity charge and higher demand.		

GRU/Winter Park

Interlocal Agreement

GRU/Winter Park Agreement

Term: 4 years (2015-2018)

Capacity: - 10 MW for 8260 hrs.

- 5 MW for 500 hrs.

- (2015 only) 10 MW for 8760 hrs. (may opt out by 7-11-14)

Energy Charge: 2015 - \$42.50/MW-h

2016 - \$43.00/MW-h

2017 - \$44.00/MW-h

2018 - \$45.00/MW-h

Capacity Charge: 2015 - \$5,500/MW-m

2016 - \$6,500/MW-m

2017 - \$8,000/MW-m

2018 - \$9,500/MW-m

Condition Precedent: Winter Park shall receive approval for firm transmission service from Duke Energy Florida for the Capacity and Energy contemplated in the contract

2015 - 2018

Estimated Gross Revenue from WP customers to GRU

\$18,389,950 to \$22,219,200

Estimated Net Revenue after paying GRU's cost to produce electricity

\$3,540,000 to \$4,200,000

Risk/Rewards

- If fuel costs are as forecast*
 - \$4,200,000 net revenue
 - \$3,540,000 (if WP ops out of 10mw in 2015)
- If fuel costs are lower than forecast, net revenue is increased
- If fuel costs are greater than forecast, net revenue is eroded
 - Actual fuel cost must be 23.3% greater than forecast over the contract term to erode all net revenue

* Forecasts include fuel cost escalation

Risk

- In 2015, Actual Production Cost would need to be \$50.25/mWh (instead of \$42.50) to completely erode net revenue
- If fuel price is on forecast in 2015, the actual cost for the next 3 years would need to exceed forecast by 37.4% to erode all net revenue
- The greatest increase in GRU Fuel Cost in any 4 year period over the last 20 years has been 13%

The GRU/WP Agreement

- Brings value to GRU's retail customers
- Has an acceptable risk profile