

# Florida Public Service Commission 2011 Ten Year Site Plan Workshop

**Progress Energy Florida**

September 7, 2011



# Overview

- Changes from April 1, 2011 TYSP Filing
- CR3 Outage Impact
- DSM Goals Impact
- Reserve Margin

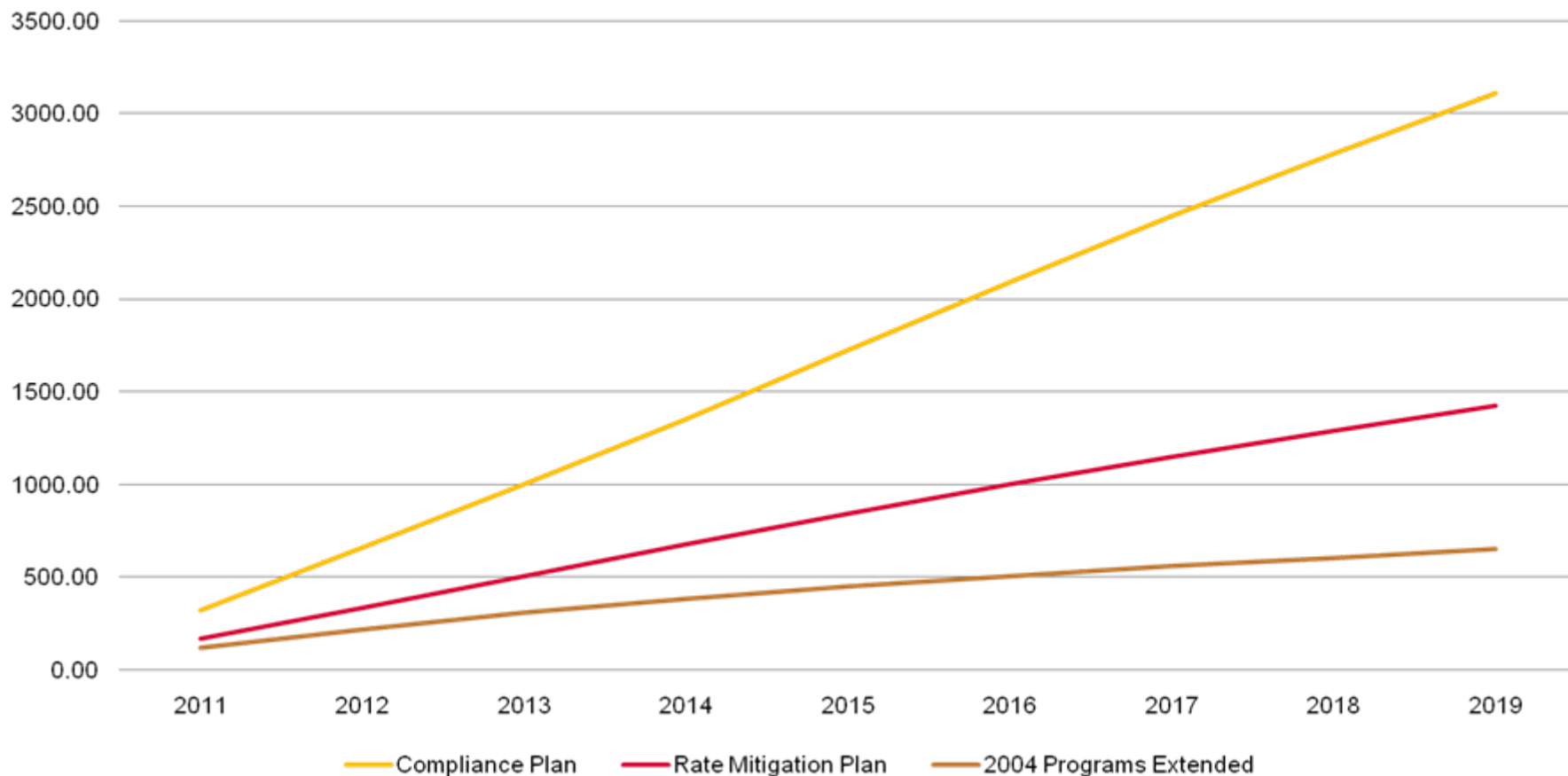
# DSM & CR3 Outage Impacts

## RESERVE MARGIN AT TIME OF SUMMER PEAK (SCHEDULE 7.1)

YEAR	APRIL 2011 TYSP	SEPTEMBER 2011	SEPTEMBER 2011
	RESERVE MARGIN	SCENARIO –	SCENARIO –
	% OF PEAK	DSM Only	DSM & CR3 Outage
		RESERVE MARGIN	RESERVE MARGIN
		% OF PEAK	% OF PEAK
2011	34%	33%	24%
2012	36%	34%	25%
2013	35%	30%	22%
2014	34%	28%	20%
2015	34%	27%	27%
2016	29%	22%	22%
2017	28%	20%	20%
2018	27%	20%	20%
2019	23%	23%	23%
2020	24%	21%	21%

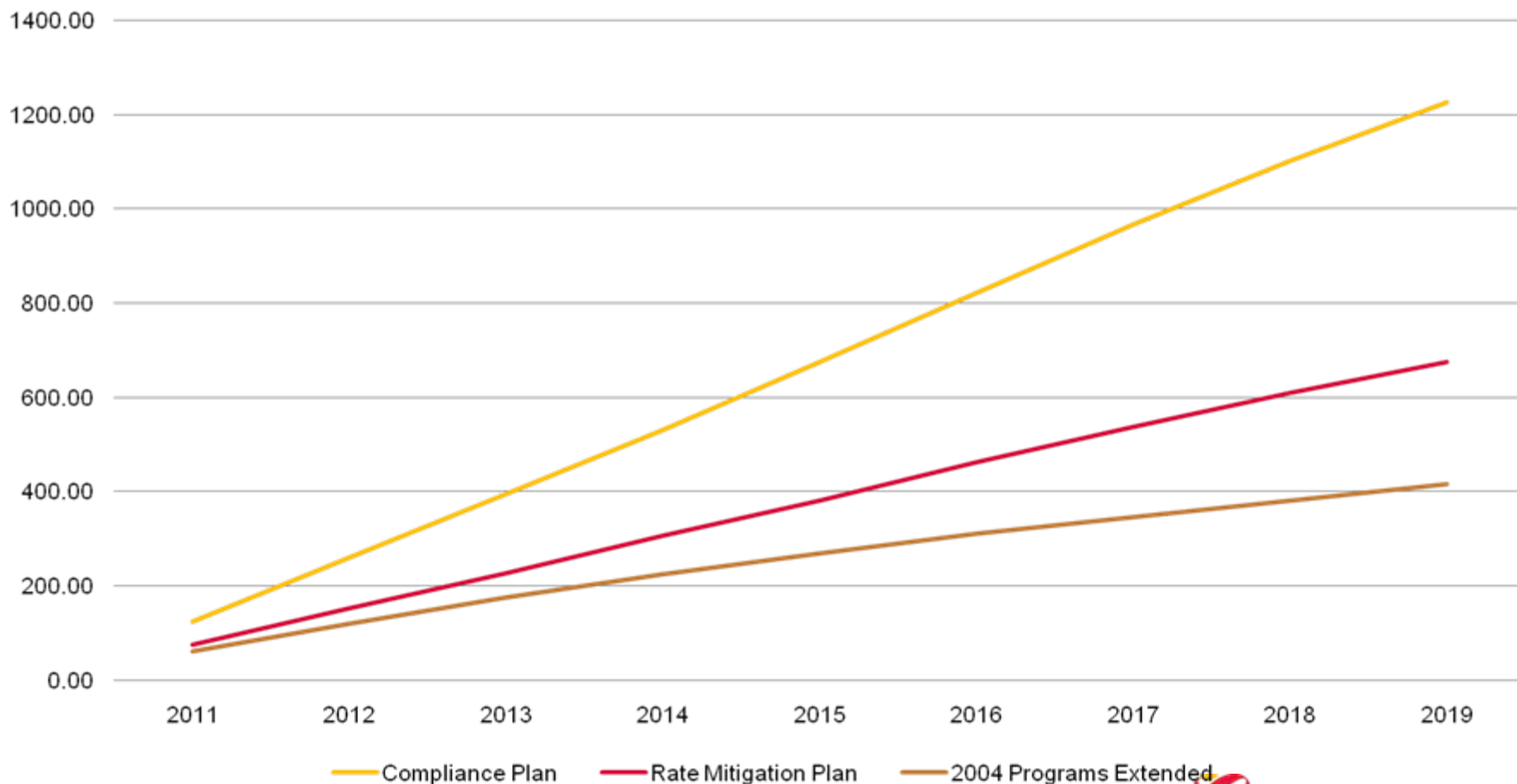
# DSM Programs Comparison (GWHR)

## Proposed Reduction in Energy Demand (GWHR) Due to Energy Efficiency Programs



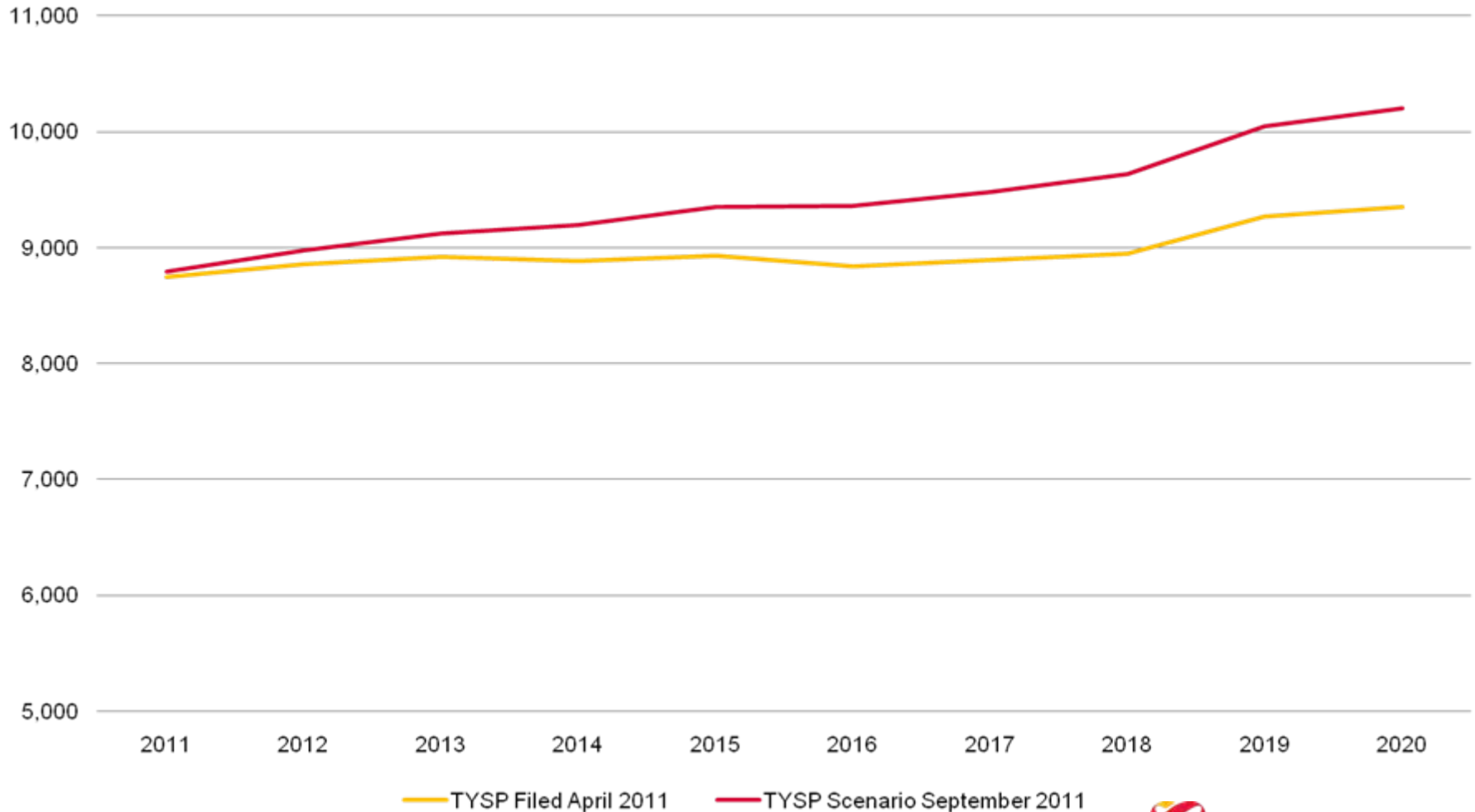
# DSM Programs Comparison (MW)

## Proposed Reductions In Summer MW Due to Energy Efficiency Programs



# DSM Program Comparison (Net Firm Demand)

## Change In Summer Net Firm Demand (MW)



# Potential Changes to Resource Plan

## SCHEDULE 8

### PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

<u>PLANT NAME</u>	<u>UNIT NO.</u>	<u>LOCATION (COUNTY)</u>	<u>UNIT TYPE</u>	CONST. START	COM'L IN-SERVICE	<u>NET CAPABILITY<sup>a</sup></u>		<u>STATUS</u>
				<u>MO. / YR</u>	<u>MO. / YR</u>	SUMMER <u>MW</u>	WINTER <u>MW</u>	
CRYSTAL RIVER	3	CITRUS	NP		11/2014	154	154	A
SUWANNEE RIVER	1-3	SUWANNEE	ST			(131)	(133)	RET. 5/16
UNKNOWN	1	UNKNOWN	GT	06/2016	6/2018	178	205	P
UNKNOWN	1	UNKNOWN	CC	06/2016	6/2019	767	875	P

# Reserve Margin Overview

SCHEDULE 7.1  
 FORECAST OF CAPACITY, DEMAND AND SCHEDULED MAINTENANCE  
 AT TIME OF SUMMER PEAK

YEAR	TOTAL CAPACITY AVAILABL E	SYSTEM FIRM SUMMER PEAK DEMAND	RESERVE MARGIN BEFORE MAINTENANCE	% OF PEAK	SCHEDULED MAINTENANCE	RESERVE MARGIN AFTER MAINTENANCE	% OF PEAK
	MW	MW	MW		MW	MW	
2014	11,799	9,193	2,606	28%	789	1,816	20%



# Elements of 20% Reserve Margin

## SCHEDULE 3.1

### HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)

YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM. / IND. CONSERVATION	TOTAL AFTER CONSERVATION
2014	10,841	413	294	10,134

## SCHEDULE 3.1

### HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)

YEAR	TOTAL AFTER CONSERVATION	INTERRUPTIBLE MANAGEMENT	RESIDENTIAL LOAD	COMM. / IND. LOAD	OTHER DEMAND	NET FIRM DEMAND
2014	10,134	378	339	103	120	9,193

# Elements of 20% Reserve Margin

- Total Capacity (Net of CR3) = 11,100 MW
- Total Load After Conservation = 10,134 MW
- Available Reserve Before Load Control  
= 966 MW

# Elements of 20% Reserve Margin

- Contribution to Regional Reserve – 194 MW
- Instantaneous / Load Following ~ 300 MW
- Remainder for Unit Reliability ~ 500 MW
  - PEF Has 10 Units greater than 450 MW Capacity
- Load Control – 708 MW
- Temperature Sensitivity – 300MW / degree

# Potential Impacts of Change to 15% Reserve Margin

- Higher Load Control Utilization
- Impact on Existing Load Control Programs
  - Disturbance Response / CT Saver
- Higher Fuel Cost
- Higher Reliability Risk