

Entergy Arkansas Integrated Resource Plan General Review

- Load and Capability
- Assumptions
- Stakeholder Input from 2009

July 31, 2012



Purpose

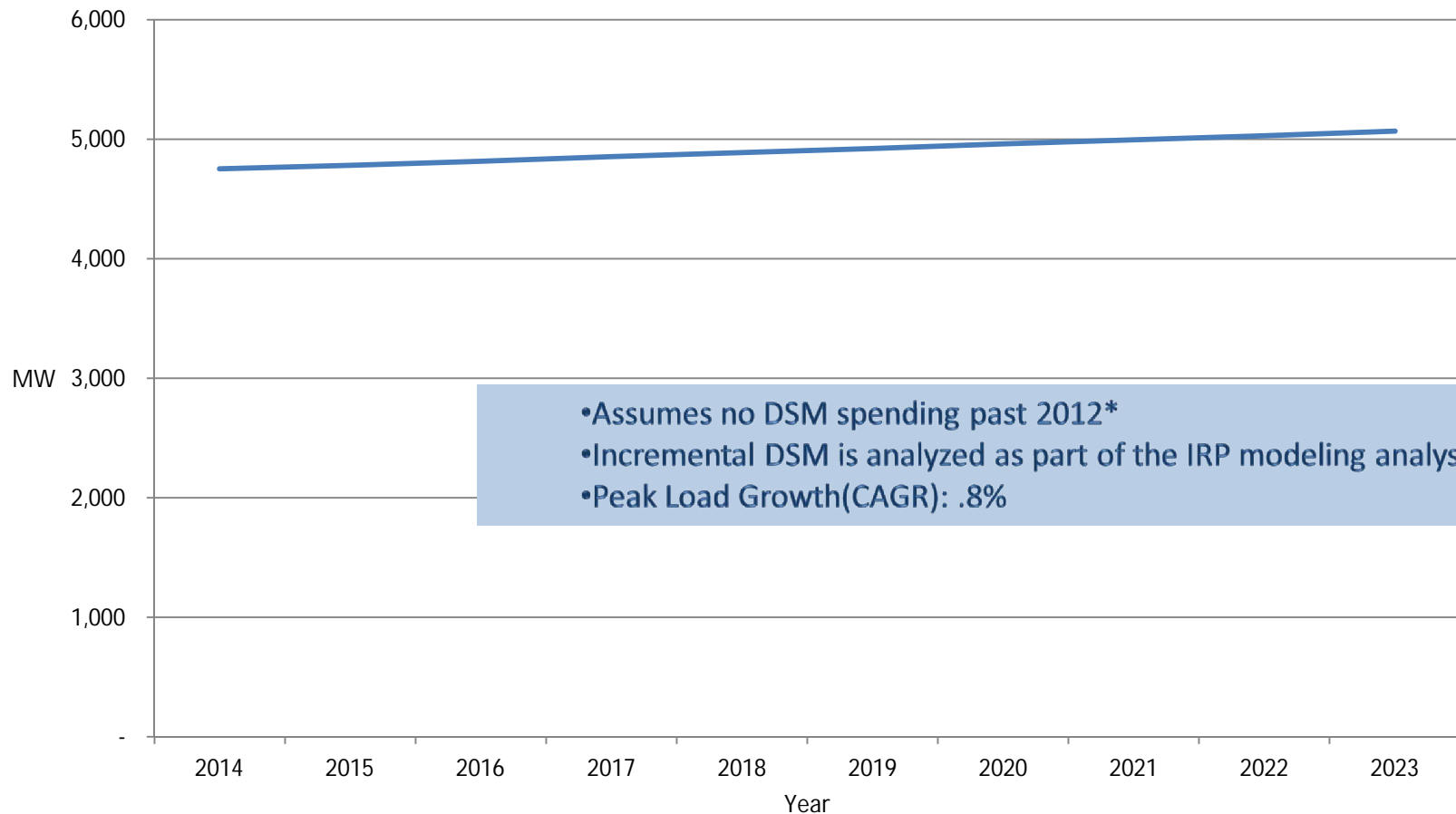
- Give an overview of EAI's current capacity position
 - Load Forecast
 - Existing Generation Capability
- Describe the base assumptions and the focus of the IRP model analysis
- Review the stakeholder committee input from 2009, and how EAI sees IRP addressing that input

IRP Study Period

- The study period for the 2012 IRP is 10 years (2014 – 2023)
- Reasons:
 - Significant changes to EAI's planning and operations framework supports a more concentrated focus on the near-term issues:
 - MISO Transition
 - Post-Entergy System Agreement Transition
 - The uncertainties surrounding these issues and their influences on EAI's capacity needs and options render longer term (i.e., > 10 years) too speculative
 - Adequate generation capacity in the region for the next several years

Load and Capability

EAI Retail Load Forecast (Includes existing DSM) Base Case (Scenario 1)

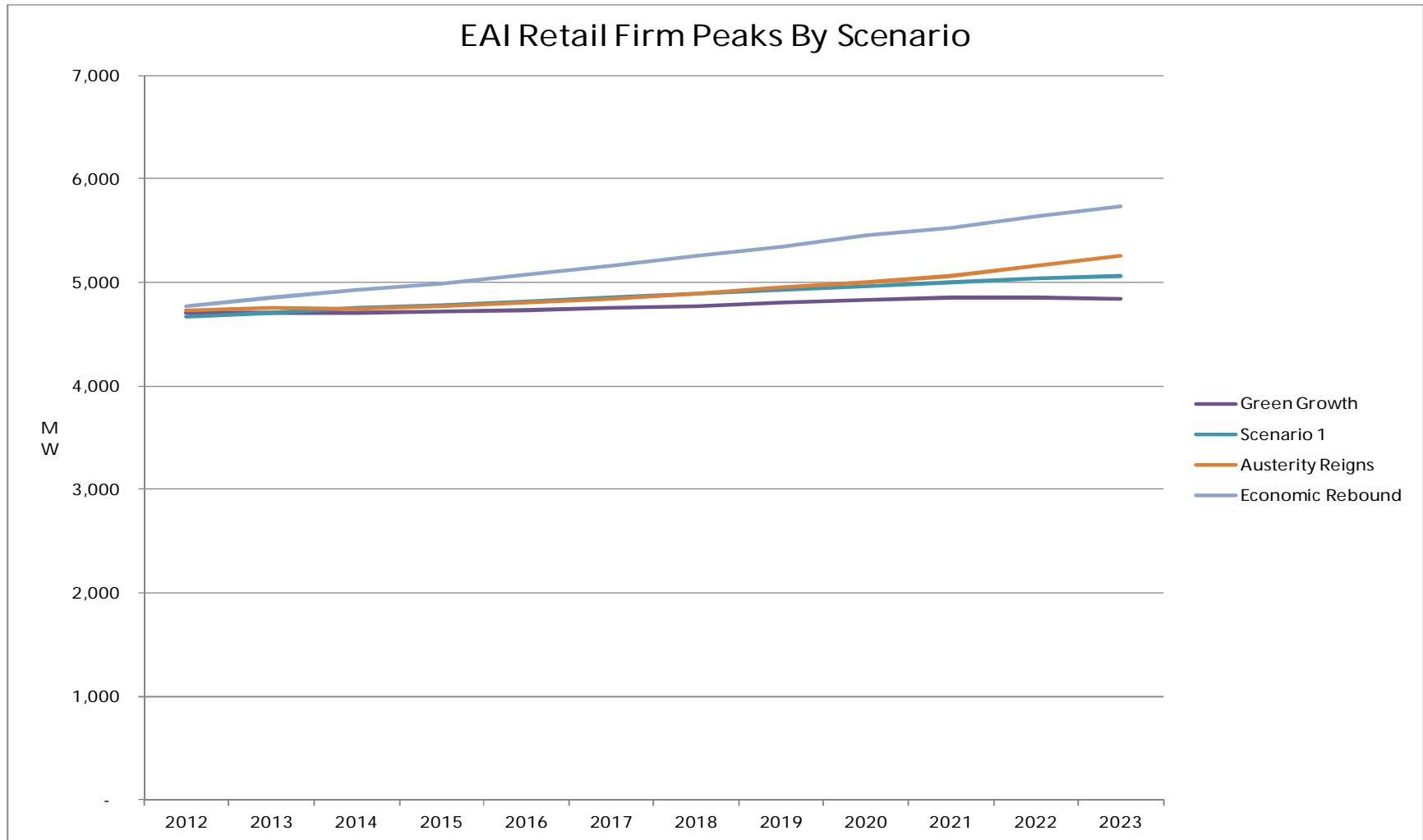


*Note that EAI's Three-Year Plan projects demand reductions of about 50 MW, which was not included in EAI's load and capability

EAI's Planning Scenarios

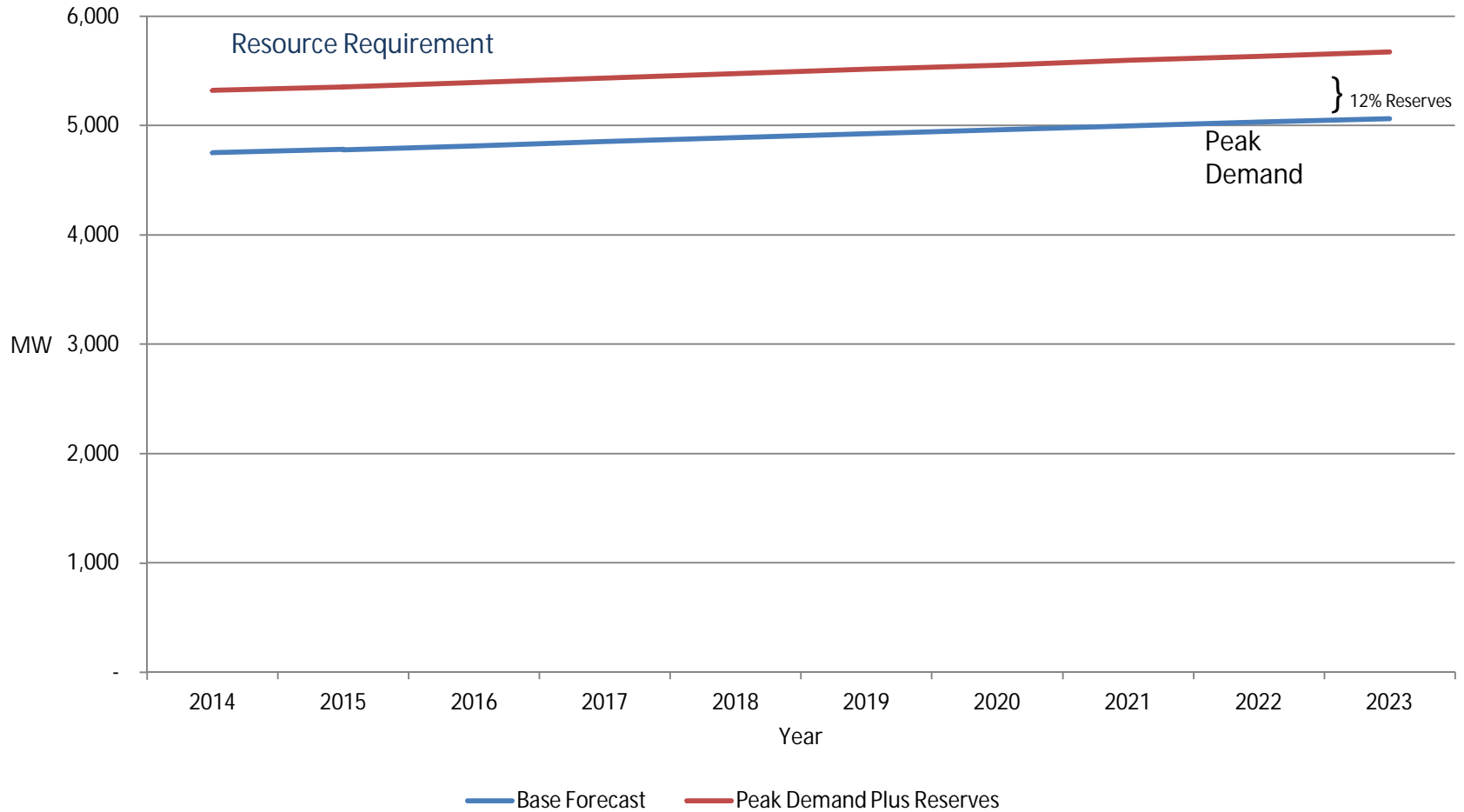
- IRP analytics will rely on four scenarios to assess alternative portfolio strategies under varying market conditions. Additional information regarding the scope of and assumptions used in the market modeling are provided in other slides. The four scenarios are:
 - Scenario 1 (Assumes Reference Load, Reference Gas, and no CO₂ cost)
 - Scenario 2 (Economic Rebound)
 - Scenario 3 (Green Growth)
 - Scenario 4 (Austerity Reigns)
- More information on scenarios is provided in the modeling analysis presentation

Forecast Scenarios (Used in Modeling Analysis)



Resource Requirements

(Assumes a Planning Reserve Requirement equal to 12% of EAI's Peak Load)



Current Active Capability

- Total Active Generation: 5,116 MW

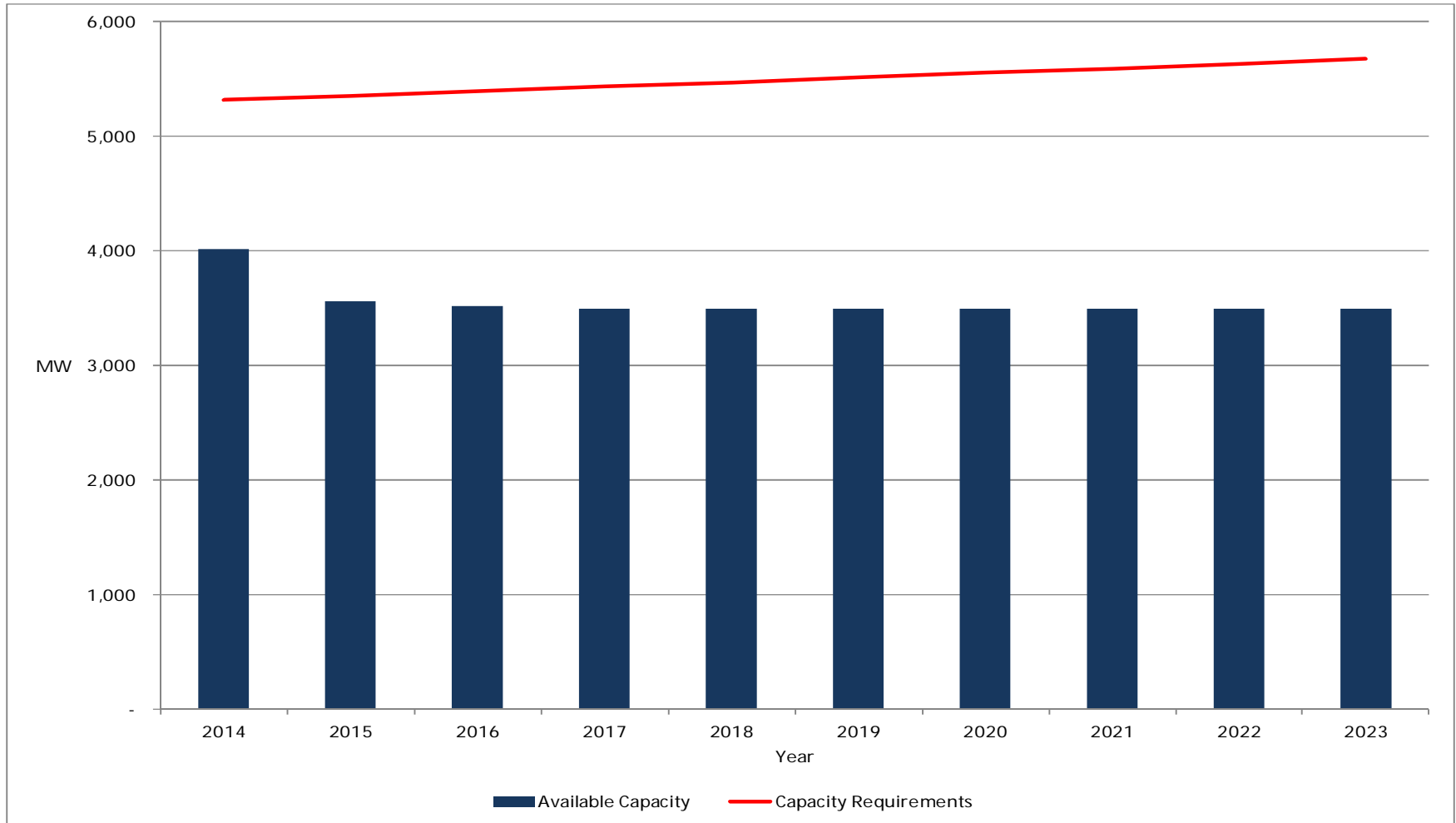
Wholesale Capacity:	726 MW
<u>Retail Capacity:</u>	<u>4,390 MW</u>
Total	5,116 MW

- Wholesale capacity is not in rate base.

Unit Deactivation Assumption

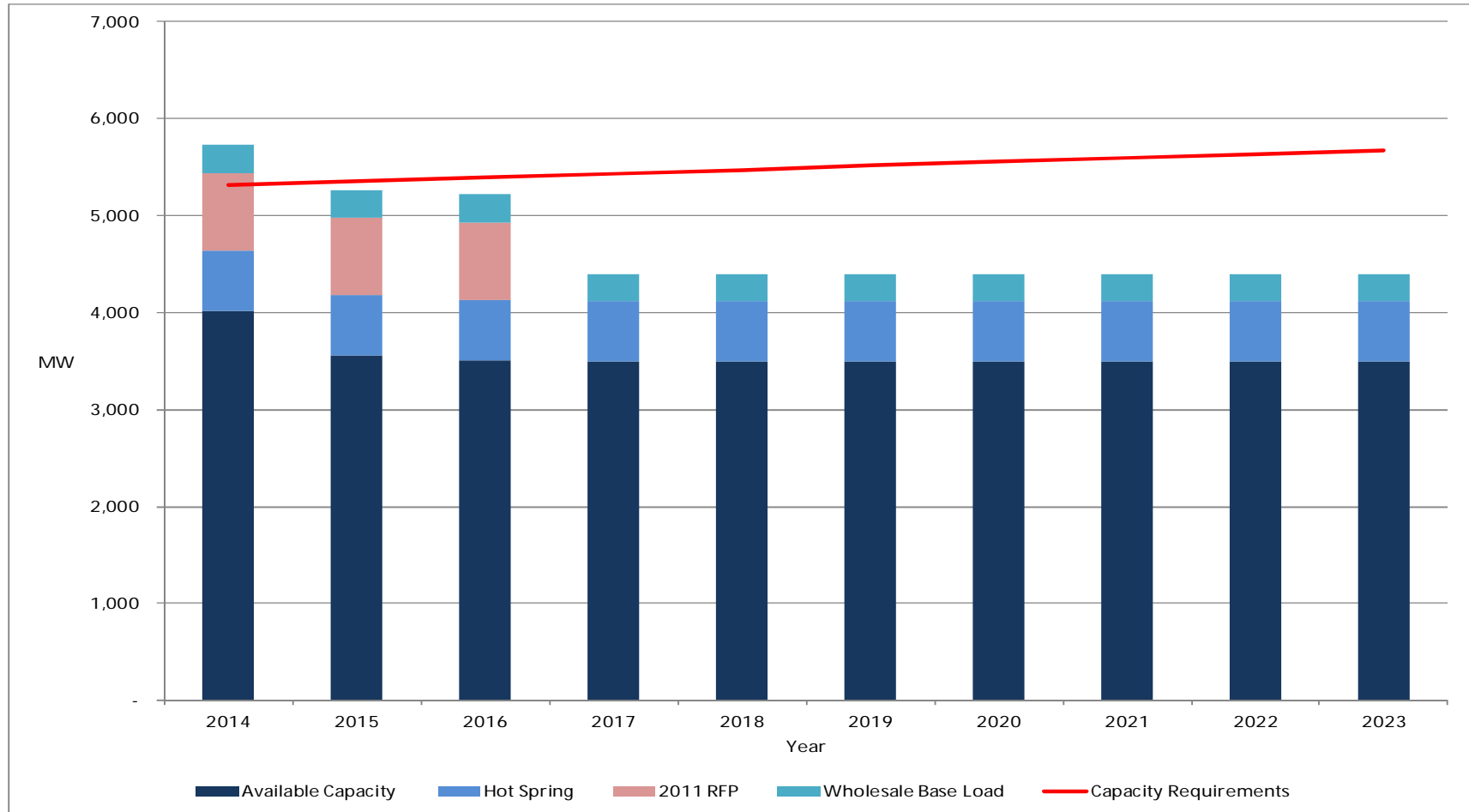
- EAI has approximately 1,000 MW of active gas/oil/diesel fired units which are all at least 40 years old
- EAI completed an assessment of this capacity on May 18, 2012 and filed that assessment with the APSC on May 21, 2012 in Docket No. 11-069-U
- For the 2012 IRP base case (Scenario 1), EAI is assuming that all the legacy gas generation will be deactivated before the 2016 summer peak, although actual decisions to deactivate units will be made on a unit-by-unit basis based upon the needs of customers and the economics of the units relative to available options at the time of the decision
- The continued operation of Lake Catherine 4 is being evaluated as part of the 2012 IRP

Capacity Position – Current Active Retail Capacity

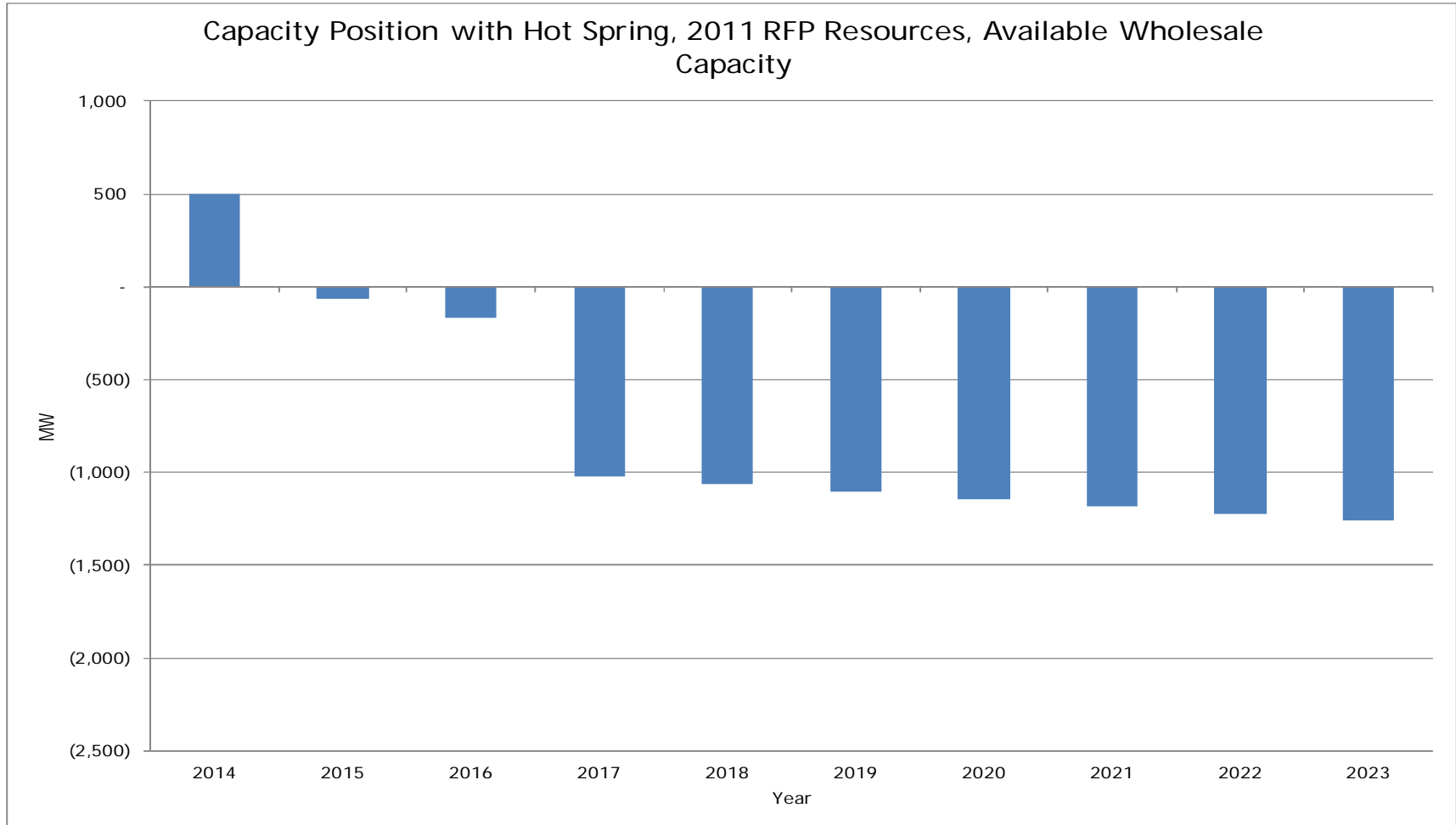


Planned Resources Added

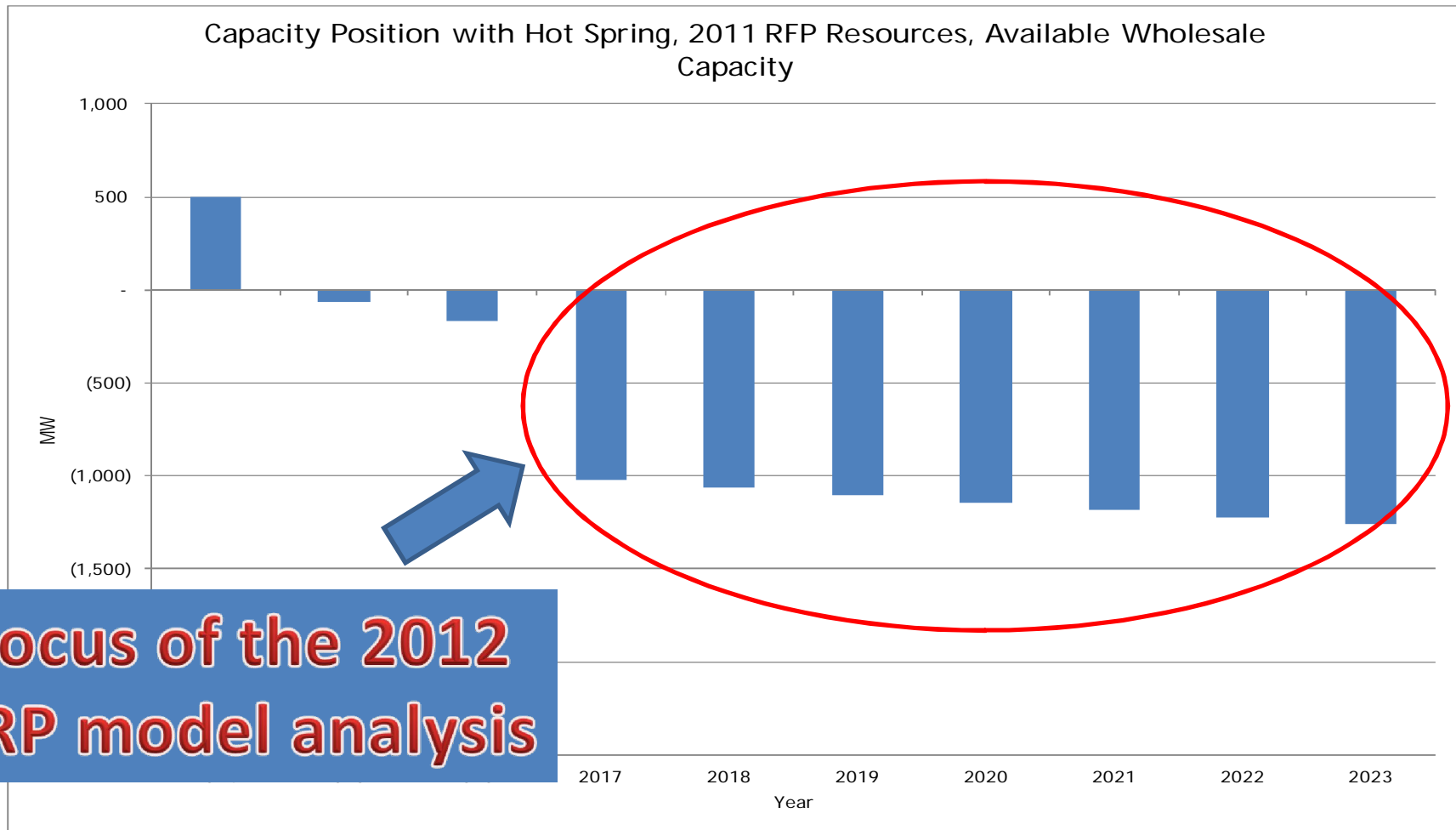
(Hot Spring Power Plant, 2011 RFP Transactions, Wholesale Base Load Capacity)



Net Capacity Position



Net Capacity Position



**Focus of the 2012
IRP model analysis**

Options Evaluated

- Five different portfolios were designed for the model evaluation
- Each portfolio included limited or short-term market purchases up to 20% of EAI's needs
- Each portfolio was evaluated under the four different scenarios described earlier
- Again, more details will be provided in the modeling analysis presentation

Portfolio Design for Model Runs

Portfolio	New Combustion Turbine Capacity	New Combined Cycle Generation Capacity	Extend the life of Lake Catherine #4	1000 MW of Wind Generation	Demand Side Management	Limited Term Market Purchases
Portfolio 1	X					X
Portfolio 2		X				X
Portfolio 3	X		X			X
Portfolio 4	X			X		X
Portfolio 5					X	X

Stakeholder Input From 2009 IRP

Stakeholder Input Overview

- In preparing scenarios and portfolios for review, EAI reviewed stakeholder concerns that were provided in the stakeholder process conducted for EAI's IRP filed October 31, 2009

2009 Stakeholder Concerns

- A. *EAI must plan to acquire the lowest cost reliable resources that are reasonably possible*
- B. *Consideration of non-mandated, non-monetized social and environmental factors in its IRP analysis.*
- C. *EAI should provide additional information on its need for automatic generation control for load following generation owned by third parties*
- D. *EAI should work to reduce TLRs on its system*
- E. *EAI should provide additional information to the Commission and its Stakeholders.*
- F. *If EAI is short capacity resources in a given planning scenario, how is that deficiency met in the plan? Will EAI conduct an RFP to meet those needs?*
- G. *Demand Side Management*
- H. *Distributed Generation and CHP*
- I. *Renewable Generation*
- J. *Reliability*
- K. *Quantifying rate impact on different customer classes.*
- L. *Advanced metering technology for residential and commercial customers*

Questions / Comments