

A large, light gray sunburst graphic is centered on the page, with its rays extending towards the bottom corners. The rays are of varying lengths and are separated by white spaces, creating a fan-like appearance.

**Illinois Commerce Commission
2014 Summer Preparedness**

**Joe Gardner, Vice President Forward
Markets and Operations Services**

May 14, 2014

Executive Summary

- MISO projects adequate reserves to meet 2014 Summer Peak demand
- The reduced reserve margins from 2013 reflect tighter supply due to retirements and will result in a higher probability of calling emergency only resources
- MISO continues to coordinate with neighbors as we seek to eliminate barriers and inefficiencies across adjoining seams to maximize value for consumers
- The outlook for 2015/2016 is for further reduction of reserves across the footprint
- MISO is exploring the feasibility of establishing a seasonal resource adequacy model to reflect changing conditions

The generation fleet in MISO is being affected by timing, fuel prices and multiple phases of environmental regulations



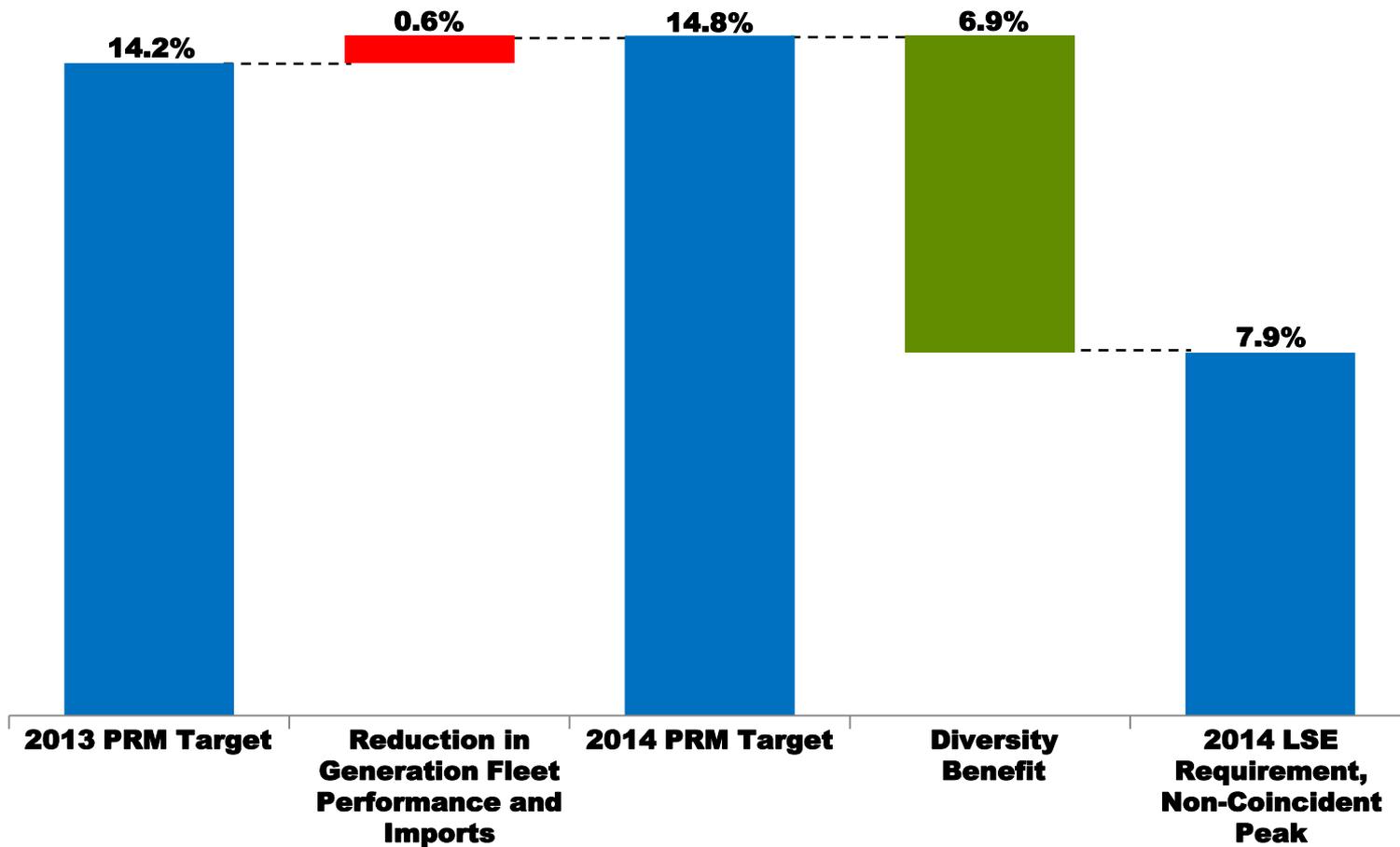
Nature of Regulation	Mercury and Air Toxics Standards	Carbon regulations (GHG)	Cross State Air Pollution Rule (CSAPR) and Water Regulations (316b)	NAAQS? Coal Ash? ???
Compliance Dates	2015 / 2016	To be determined	To be determined	???
Impacts	<ul style="list-style-type: none"> • Significant coal retirements • Outage coordination challenges • Shrinking reserve margins around MISO • Growing dependence on natural gas 	<ul style="list-style-type: none"> • June 2014 draft rule release • Continued pressures on reserve margins • Increased dependence on natural gas 		

These factors will culminate in the erosion of reserve margins and an increase in reliability risk

2014 Resource Adequacy Overview

- MISO projects adequate reserves to meet 2014 Summer Peak demand but a reduced reserve margin and the tightening of supply results in a higher probability of calling emergency only resources this summer
- The region's resource portfolio is undergoing significant change which will result in reduced reserve margins
 - MISO-wide 2014 reserve margin target: 14.8%
 - MISO-wide summer 2014 anticipated reserve margin: 15%
 - Reserve requirement is higher due to fleet performance and reduced neighboring reserve margins
- Reserve Margin reductions from prior years mostly due to approved retirements, suspensions and removal of non-firm imports

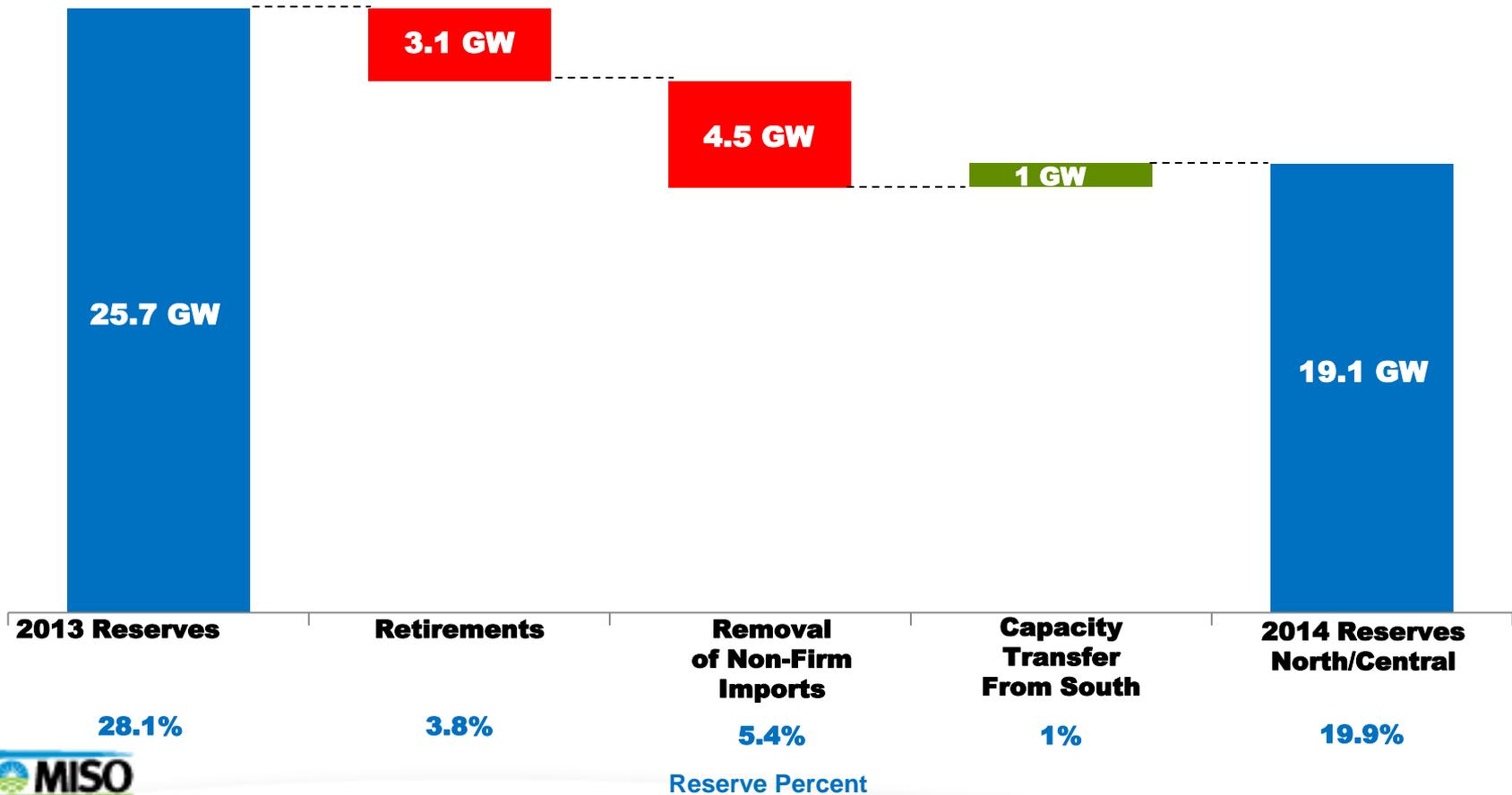
Planning Reserve Requirement 2013 – 2014



Reserve Margins are Tightening

North and Central Region

In GWs

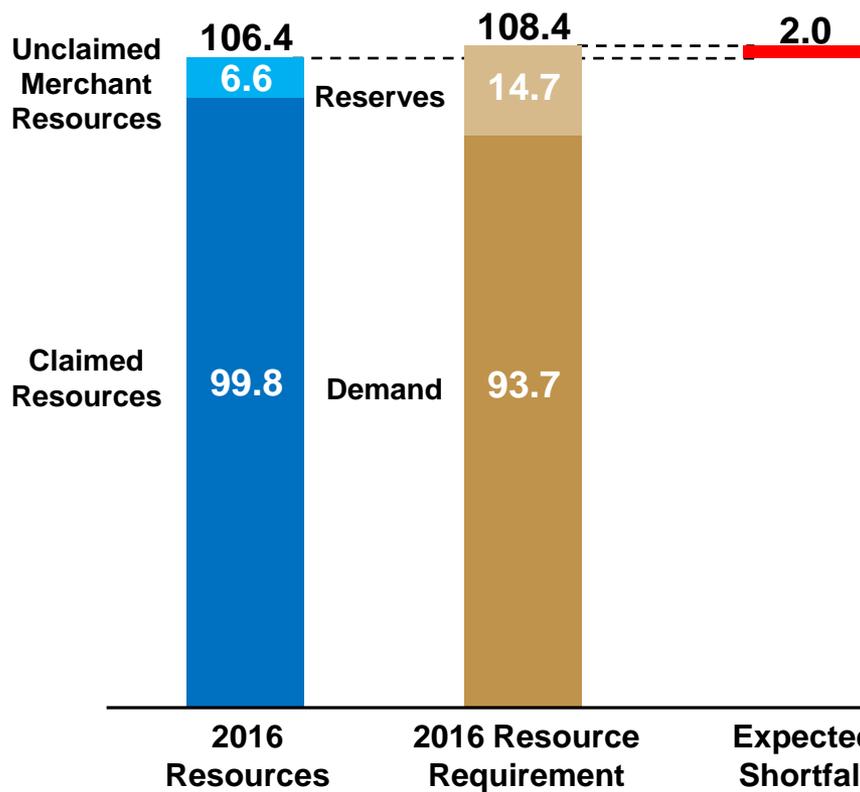


2016 Resource Adequacy Forecast

As of January 31, 2014

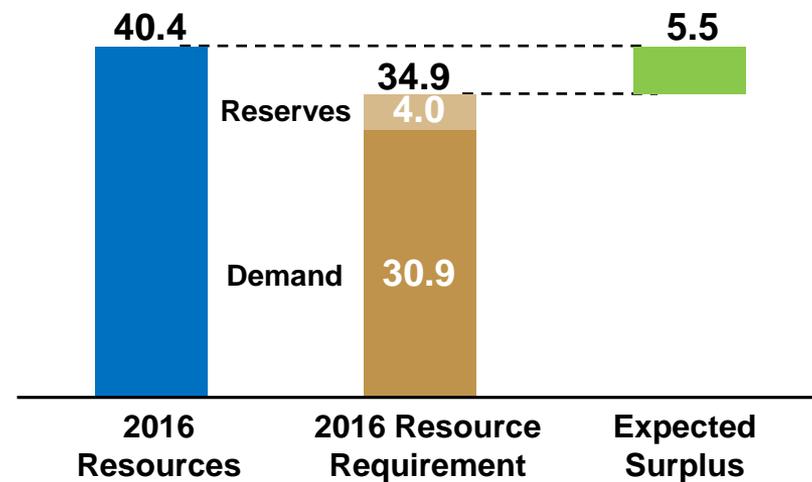
North & Central Regions

In GW



South Region

In GW



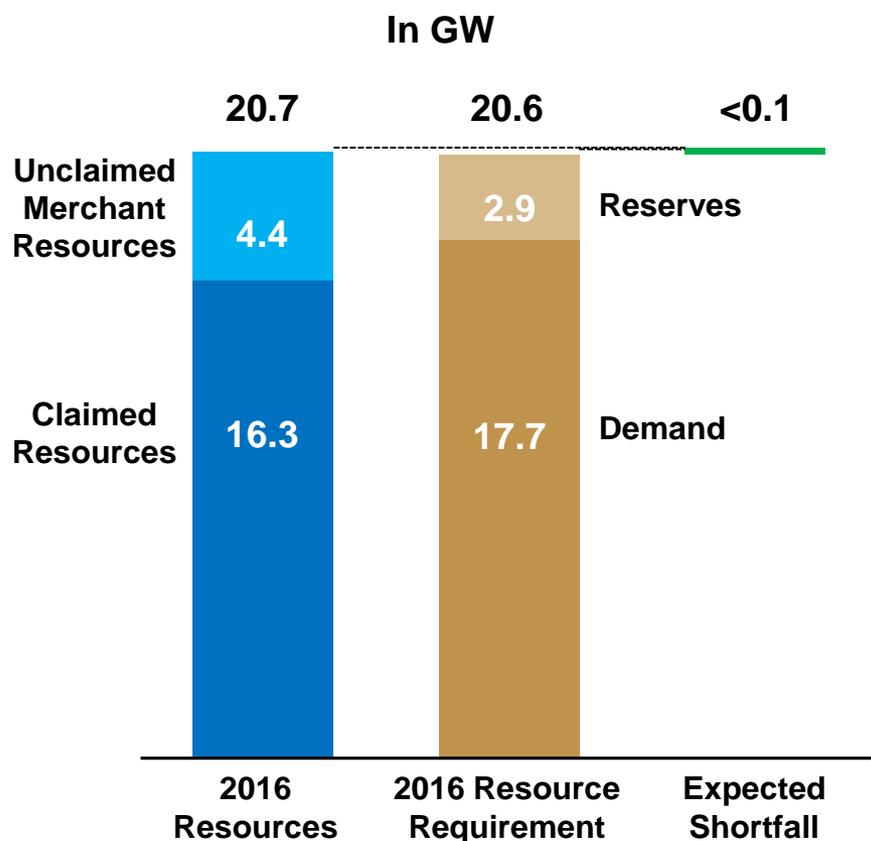
MISO's Efforts to Improve Resource Utilization

- Evaluate potential solutions and cost/benefit to stranded capacity resources under varying conditions (4th Quarter 2014)
- Establish specific availability and use conditions of load modifying resources (Fall 2014)
- Eliminate barriers to efficient energy and capacity transactions across seams (Initial report – Summer 2014)
- Evaluate seasonal nature of resource and reserve requirements (2015)
 - Gas/Electric harmonization
- Evaluate infrastructure requirements (ongoing)

Appendix

OMS / MISO Resource Adequacy Survey Results Zone 4 and 5 (All or Parts of MO and IL)

As of January 31, 2014



Observations

- Resources
 - Reported retirements 1,211 MW Less the Long Term Reliability Assessment
 - 98% of resources in zone reported as high confidence for 2016
- Demand
 - Reported demand 1,222 MW less than Long Term Reliability Assessment

Factors driving both supply and demand forecasts are indicative of persistent uncertainty and illicit caution

- **Demand Reductions**

- Current survey shows an aggregated 2016 demand of 93.7 GW
 - This is a -0.75% annual growth rate for the next three years
 - MISO's weather-adjusted annualized growth rate is 1.5% since 2009 (would imply a 2016 load of 100.2 GW)
 - The annual growth rate in the most recent Long Term Reliability Assessment is 0.8% (would imply a 2016 load of 98.1 GW)

- **Resource Increases**

- 3.2 GW of previously uncounted resources are included
- 3.5 GW of generators were reclassified from retirement / low confidence to high confidence - Investment and approvals are required to firm up these resources

- **Unclaimed Merchant Generation**

- Results include 6.6 GW of generation not currently contracted to serve load