



MISO UPDATE

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May 22, 2012



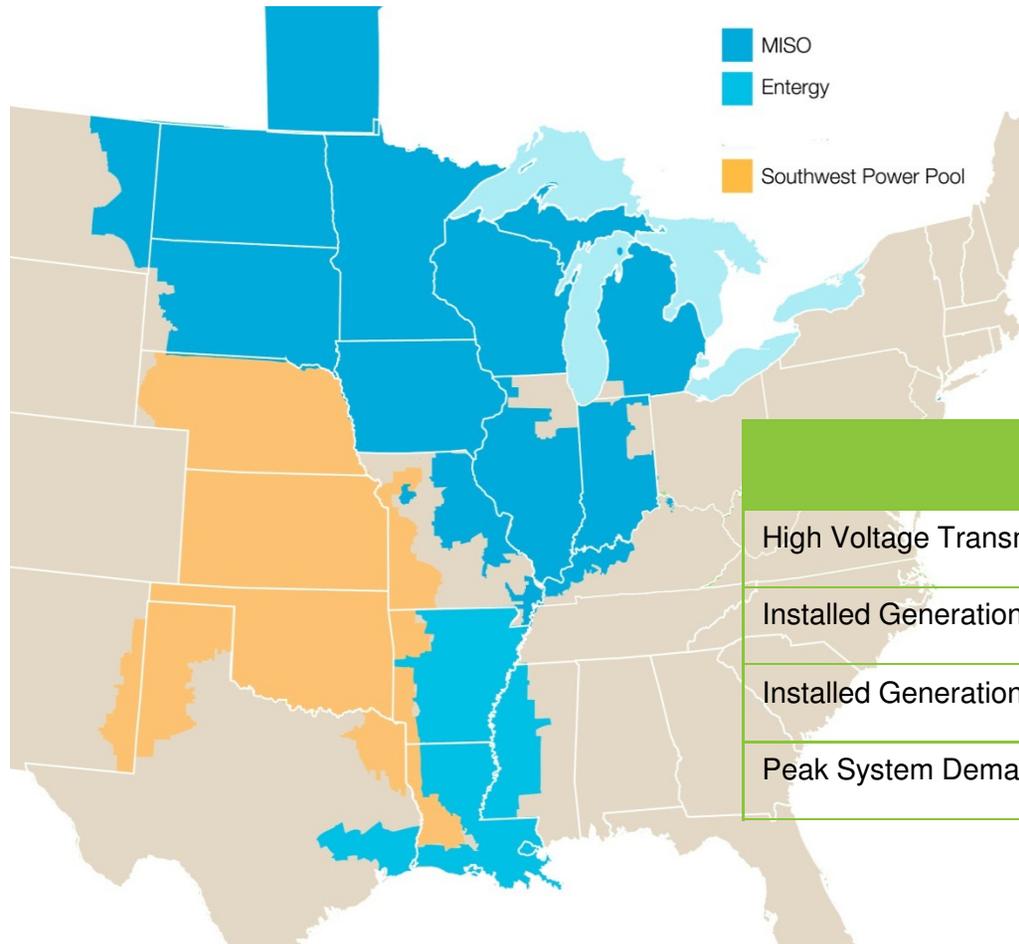
MISO Current Issues

- Summer Outlook
- Entergy Integration including OMS/E-RSC
- Capacity Deliverability
- Generation Interconnection Study
- MTEP including Northern Area Study
- Cost Allocation including MVPs, MEPs
- EPA Regulations/Gas-Electric Interdependence

Summer Outlook

- Sufficient reserves to serve load with a planning reserve margin of 27%
- The planning reserve margin requirement is 17%
- Available capacity 114,475 MW
- Peak demand forecast 89,867 MW

Entergy Integration



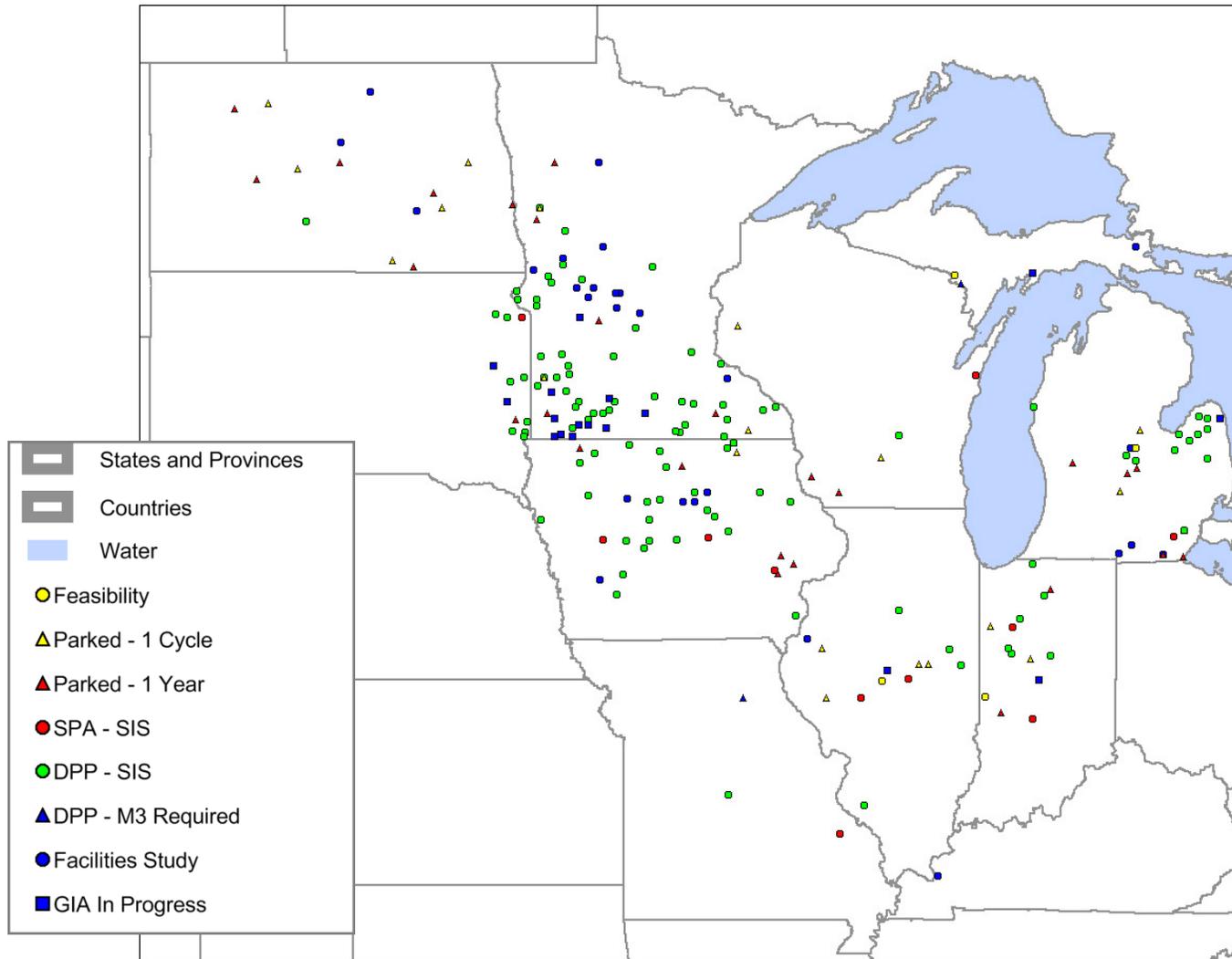
	Current MISO	MISO w/ Entergy
High Voltage Transmission - miles	53,200	68,700
Installed Generation - MW	146,500	169,500
Installed Generation – # of Units	1,304	1,398
Peak System Demand - MW	104,000	129,500

Capacity Deliverability

Reducing Barriers with Neighboring Regions:

- Preliminary analysis indicates an additional 4,000 – 6,000 MW of capacity transfer capability
- Reliability – removal of administrative barriers will provide additional flexibility to deal with required outages
- Market Efficiency – common methodologies will allow for the utilization of assets and price convergence at the seam (estimated value - \$1.5B per year)
- Price Transparency – price transparency and convergence will assist policymakers and stakeholders as decisions are evaluated
- Next Steps
 - FERC technical conference to review the issue
 - MISO and PJM to work towards resolution

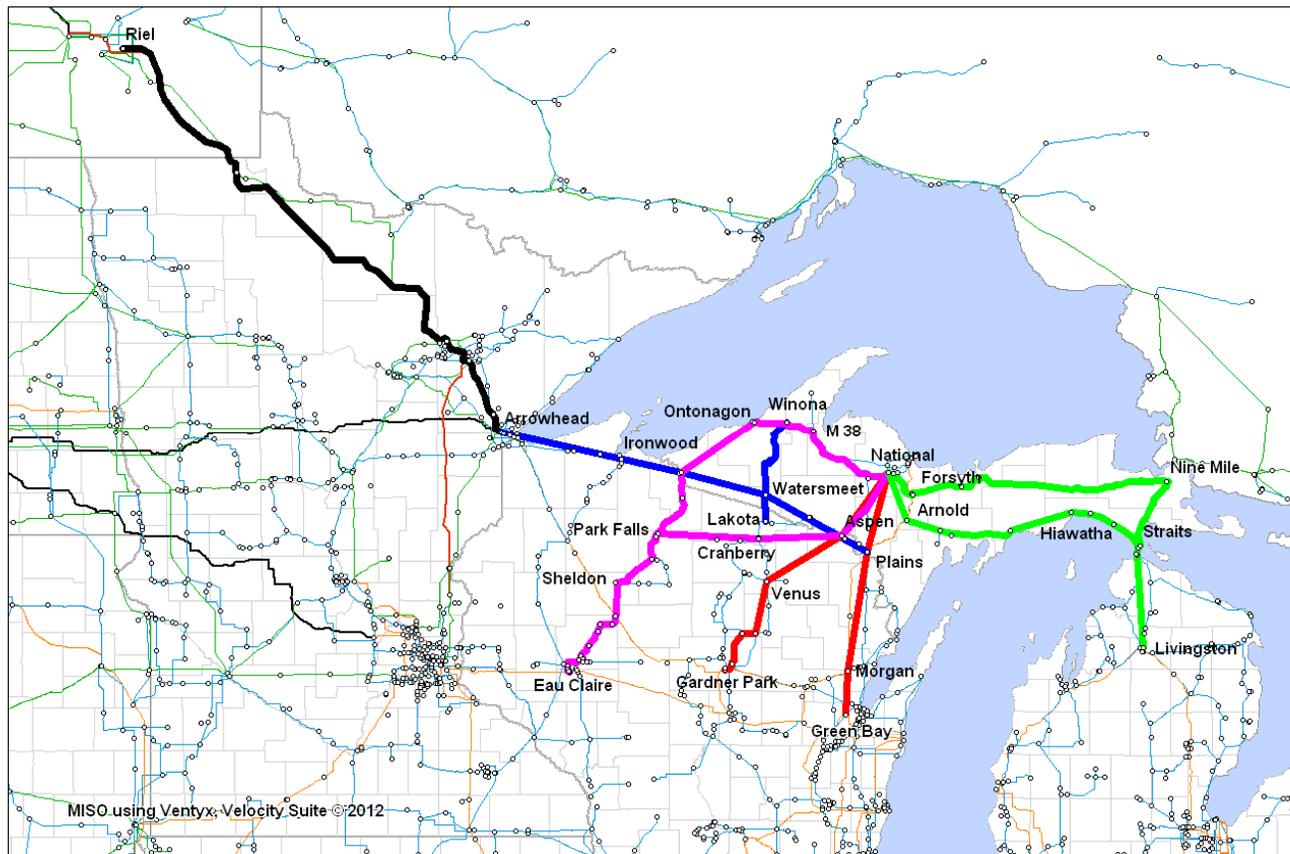
Generation Interconnection Queue



MTEP including Northern Area Study

Northern Area Study – Geographical Study Area:

- Multiple Plans Proposed



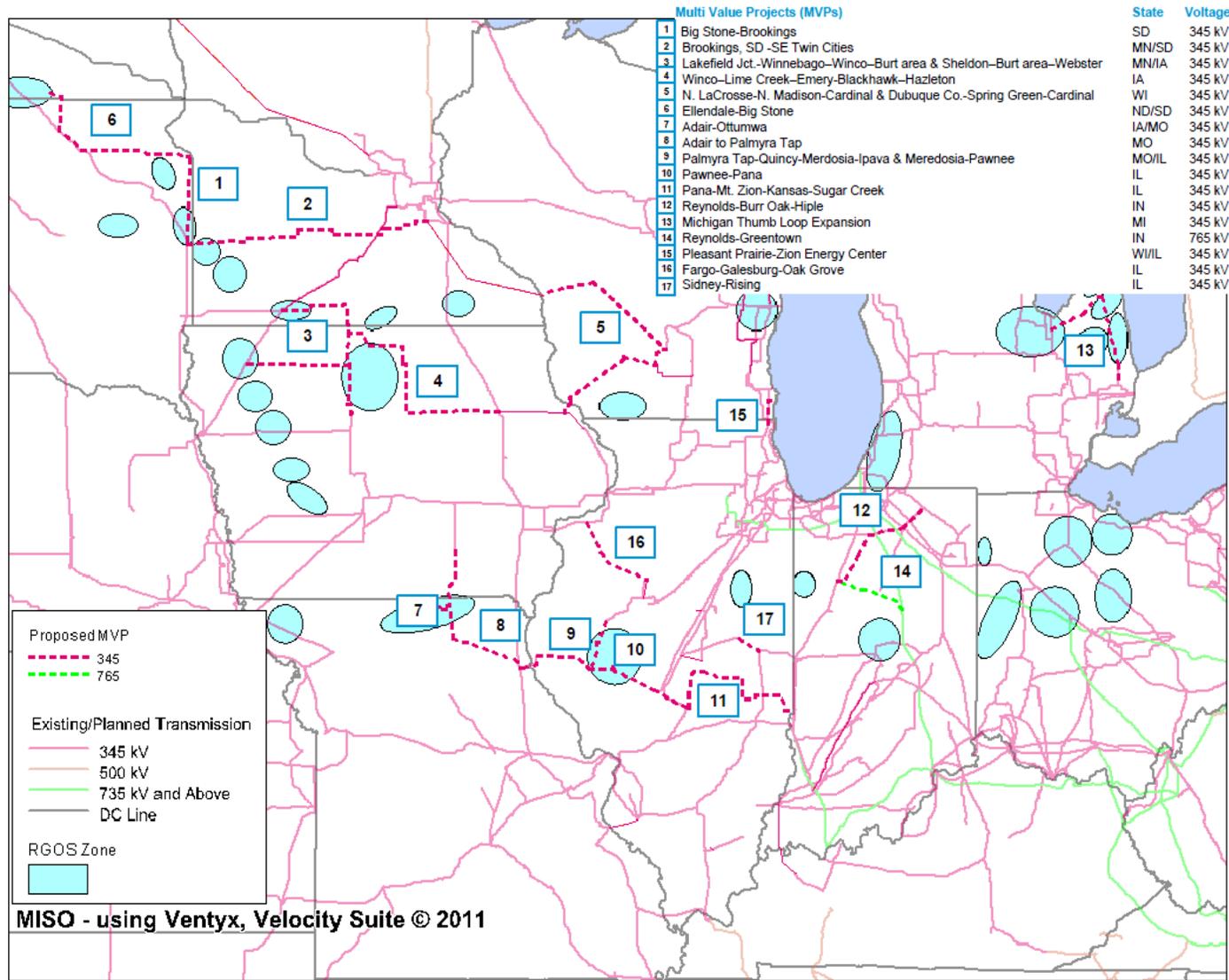
Cost Allocation including MVPs, MEPs

Snapshot of Cost Allocation:

- Market Efficiency Project criteria and sub-regional cost allocation methodology revisions filed with FERC on April 19, 2012

Allocation Category	Driver(s)	Allocation to Beneficiaries
Participant Funded ("Other")	Transmission Owner identified project that does not qualify for other cost allocation mechanisms.	Paid by requestor (local zone)
Transmission Delivery Service Project	Transmission Service Request	Generally paid for by Transmission Customer; Transmission Owner can elect to roll-in into local zone rates
Generation Interconnection Project	Interconnection Request	Primarily paid for by requestor; 345 kV and above 10% postage stamp to load
Baseline Reliability Project	NERC Reliability Criteria	Primarily shared locally through Line Outage Distribution Factor Methodology; 345 kV and above 20% postage stamp to load
Market Efficiency Project ¹	Reduce market congestion when benefits are 1.2 to 3 times in excess of cost	Distributed to planning sub-regions commensurate with expected benefit; 345 kV and above 20% postage stamp to load
Multi Value Project	Address energy policy laws and/or provide widespread benefits across footprint	100% postage stamp to load

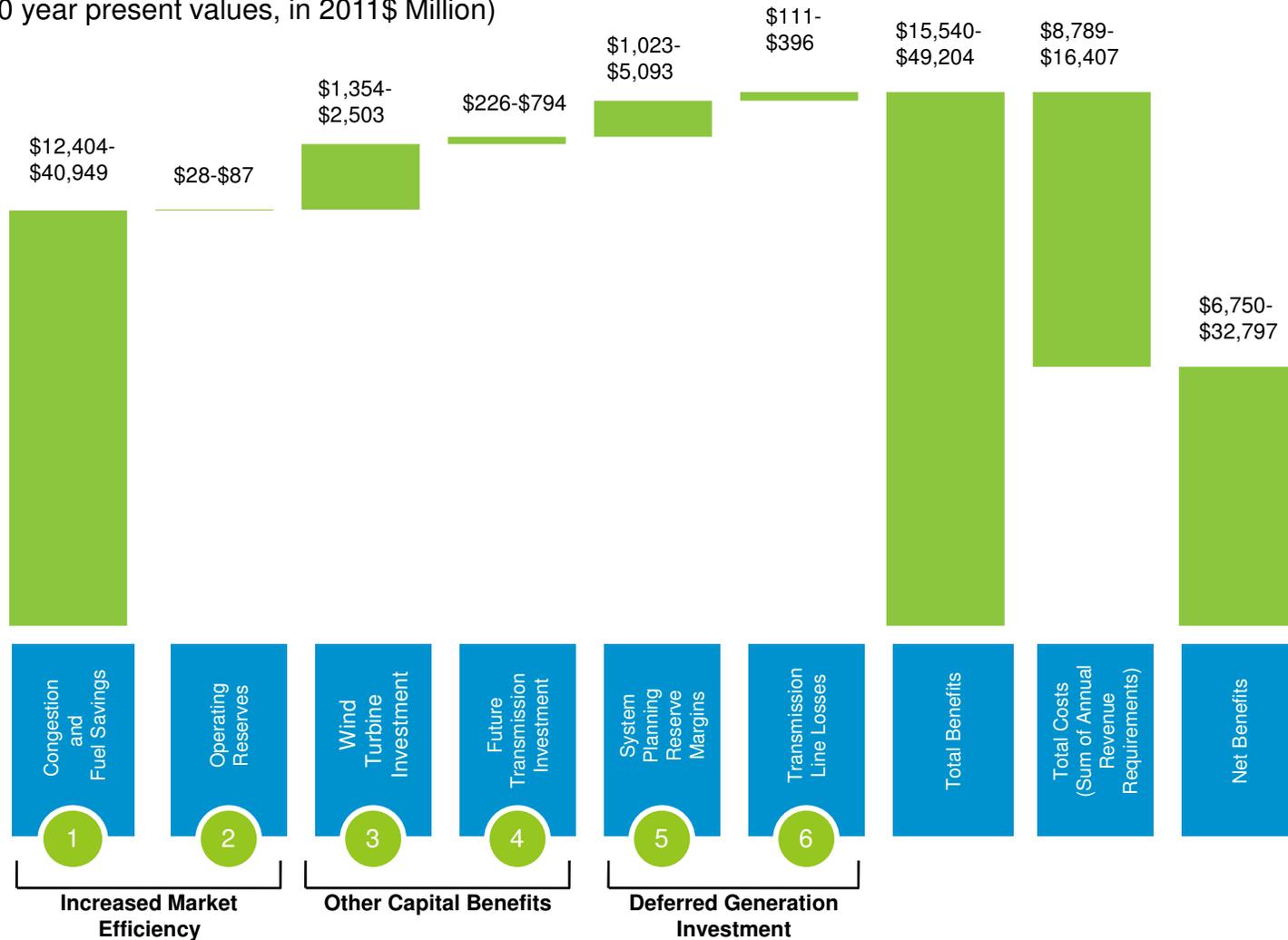
Multi Value Projects - Portfolio



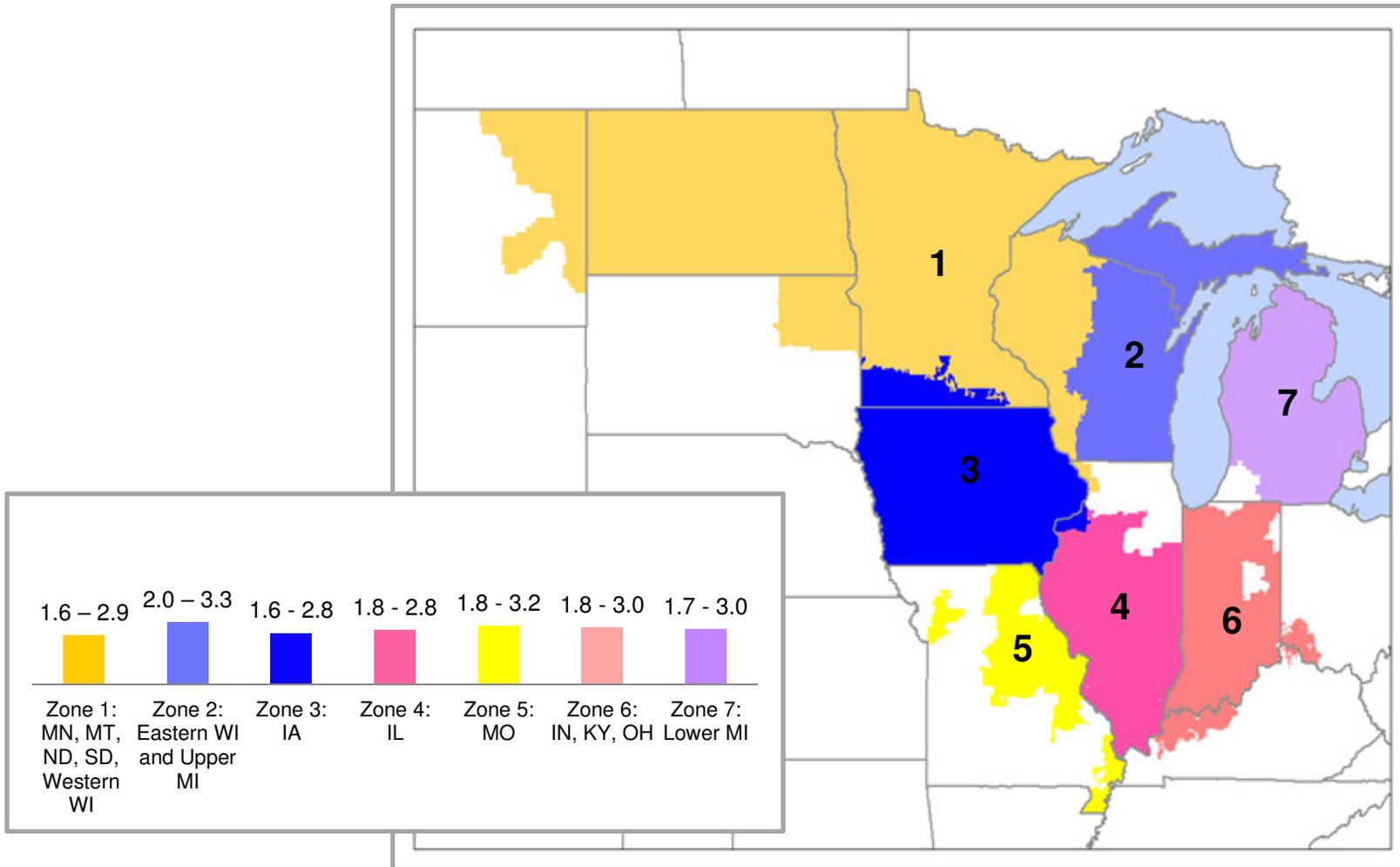
Multi Value Projects – Economic Benefits

Benefit by Value Driver

(20 to 40 year present values, in 2011\$ Million)



Multi Value Projects –Local Resource Zone



EPA Regulations/Gas-Electric Interdependence

Overview of EPA Impacts:

- 12.6 GW of coal capacity Identified as at-risk
 - Expected retirement dates to be in the 2014/2015 calendar years
 - 12.6 GW of retirement would erode MISO projected reserve margins by 12 percentage points, dropping system resources 6 to 7 percentage points below required targets.
- Capital investment of \$33.0 Billion will be required to retrofit and/or replace units
- Average energy prices may increase by \$5/MWh

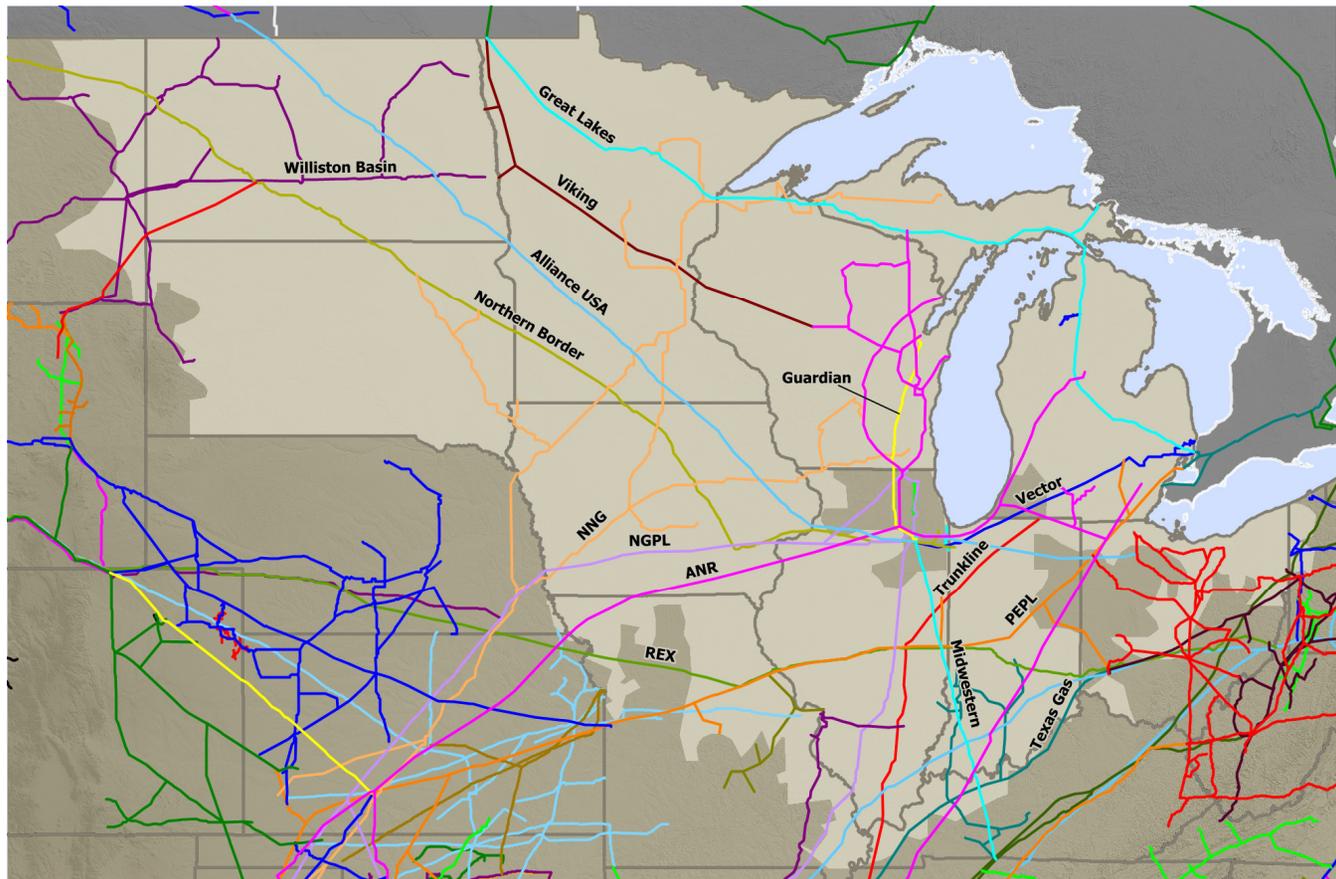
12,652 MW of Retirements	
Energy Cost Impacts	\$5/MWh
EPA Compliance Retrofit Capital Costs	\$22.5B
New Capacity Capital Fixed Charges	\$9.6B
Fixed O&M Capital Costs	\$0.0B
Transmission Capital Costs	\$0.9B
Total Capital Costs	\$33.0B



EPA Regulations/Gas-Electric Interdependence

Overview of EPA Impacts:

- MISO region major pipelines



Upcoming Events

- May 30: Planning advisory committee
- June 1: Right of first refusal meeting
- June 11: John Bear speaks @ MARC, Des Moines
- June 19-21: Annual members meeting, French Lick IN
- August 6-16: MSU Camp NARUC, East Lansing, MI
- August 14-16: Advisory committee meeting, St. Paul
- October 1-4: UW energy basics program, Madison
- For the complete list of MISO meetings, see misoenergy.org
- Take our new self-study market training, “A Day in the Life of the Grid”. See the learning enrichment center @ misoenergy.org (also on home page) or email bschuler@misoenergy.org for a full list of training programs

