

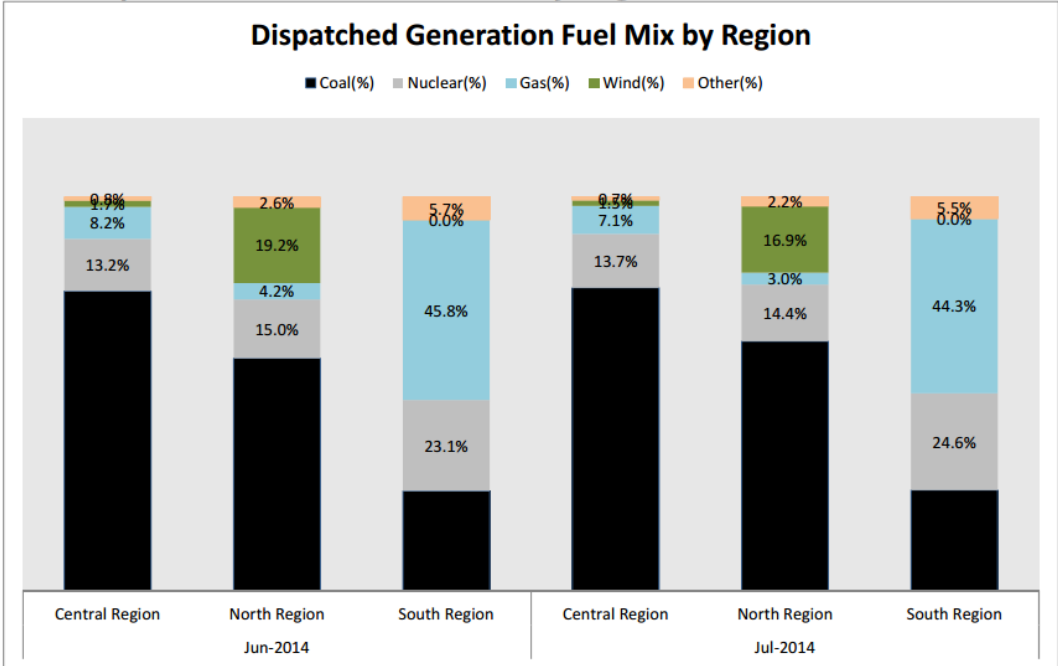
# Environmental Sector Comments on MISO Monthly Operations Report Annual Review

December 12, 2014

The Environmental Sector appreciates the opportunity to provide feedback for MISO’s markets and operational metrics review. Organizations in the Environmental Sector rely on data from MISO’s monthly operations reports to track fuel mix, wind production, and demand response utilization in the MISO region. MISO’s reporting of this data is very helpful, and we would oppose any effort to reduce the information published in the operations reports related to fuel mix, wind production, and demand response. In addition, we make the following requests:

- 1. Include reporting on solar production and distributed generation.**  
 At least one state in the MISO footprint has a policy mandating electricity production from solar and distributed generation. In addition, there are currently hundreds of megawatts of active solar projects in MISO’s interconnection queue with 2016 in-service dates. We would like to track the development of these resources in MISO, both by energy production and installed capacity.
- 2. Improve data published on subregional generation fuel mix by including the percentages**  
 Since the south integration, MISO has included fuel mix charts at a subregional level. Initially, MISO embedded the fuel mix percentages in the charts as shown below, but eliminated them after July 2014. This makes it difficult to track subregional fuel mix over time. We request that MISO begin including this data again.

## 7.1.1 Dispatched Generation\* Fuel Mix by Region

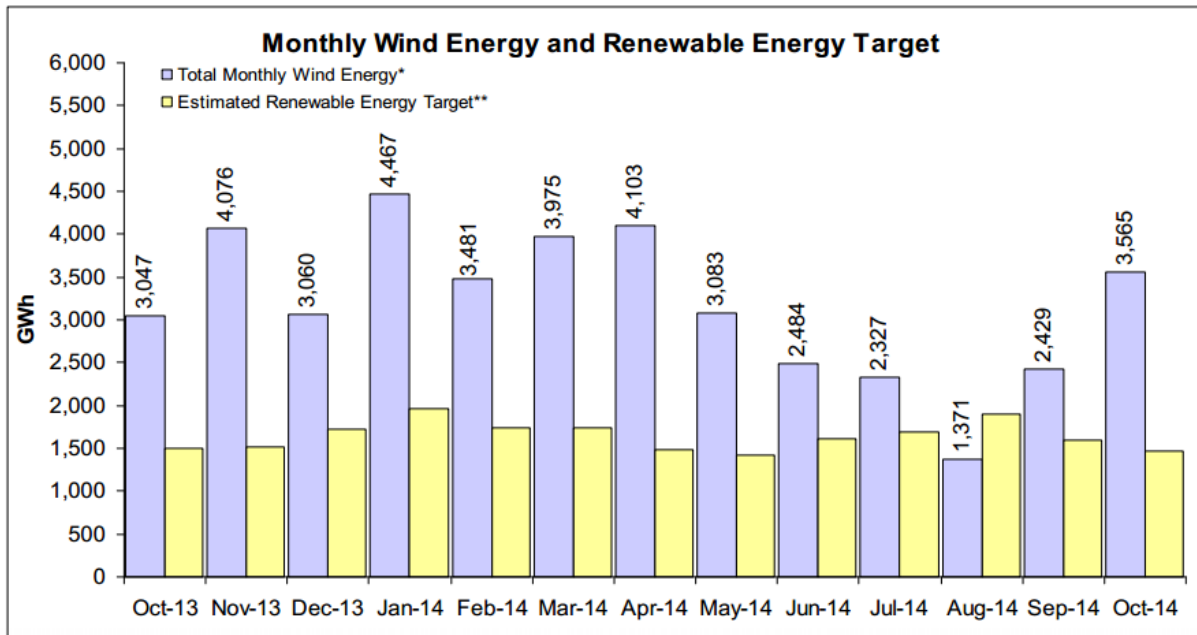


\*Based on 5-minute unit level generation dispatch target

**3. Publish MISO’s estimated monthly renewable energy target.**

MISO includes a chart showing actual wind energy produced compared to estimated renewable energy target (see figure). We request that MISO include the actual GWh values for the estimated renewable energy target (the yellow bars), to more easily track RPS progress in MISO over time.

## Wind Utilization



RPS data extracted on November 03, 2014. Values may change due to resettlement.

\*Sum of hourly State Estimator data.

\*\*Monthly wind energy generated (light blue) compared to monthly renewable energy target (yellow bar) to satisfy approximate aggregate State RPS mandates within MISO’s market footprint. Additional information can be found under [Stakeholder Center/Committees, Work Groups, and Task Forces/Informational Forum – Related Documents](#).

Source: MISO Real-Time Operations Department

\*\* Yellow bar represents the annual renewable energy target distributed by month based on monthly capacity factor expectations of the MISO system.

**4. Clarify seasonal obligations and availability of demand response.**

In October 2014, MISO began publishing a slide on LMR availability to track MISO’s Behind the Meter Generation (BTMG) and Load Modifying Resources (LMRs).<sup>1</sup> As reported in October, this includes 4,979 MW of Total Cleared DR Capacity cleared in the 2014-15 Planning Resource Auction. We would like clarification regarding how much of this DR/BTMG capacity is obligated to respond if MISO were to call it and subject to penalties if it fails to show up. This can be compared to DR/BTMG capacity that is available for voluntary deployment, but not obligated nor subject to penalties if it fails to. These values would likely vary by month and season.

Thank you for the opportunity to provide feedback.

<sup>1</sup> (Slide 28:

<https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/Informational%20Forum/2014/20141118/20141118%20Informational%20Forum%20Presentation.pdf>)