



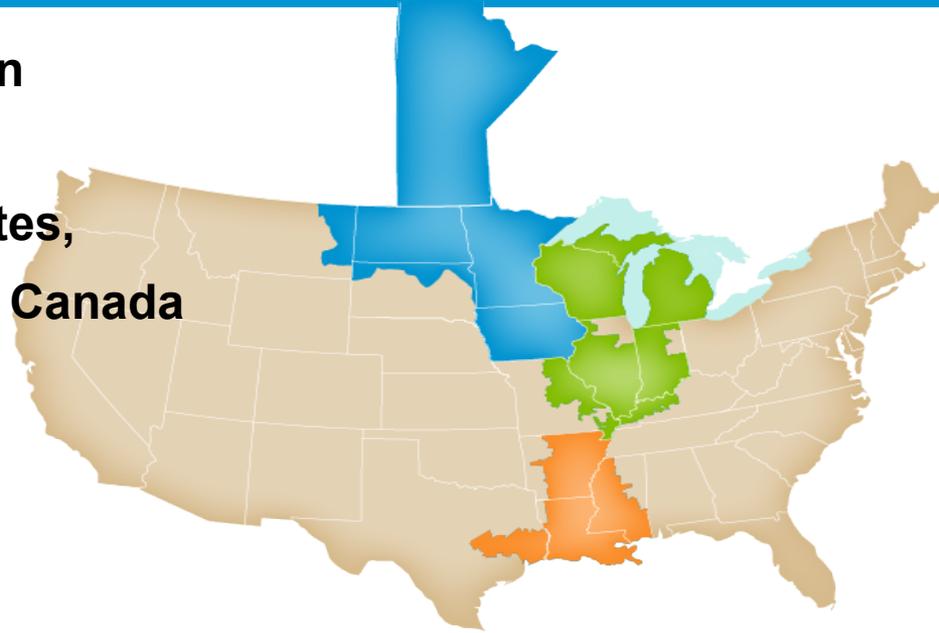
# Modernizing the Grid

Midcontinent Independent System Operator  
Sept. 26, 2017

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Executive Director  
MISO South Region

# MISO – Who we are

- **Regional Transmission Organization**
- **Not-for-profit organization**
- **Manage transmission grid in 15 states, City of New Orleans, and Manitoba, Canada**



# Evolution of ~~Modernizing~~ the Grid



# Current Drivers of Change

- Computing Power
- Shale Gas
- Technological Advances

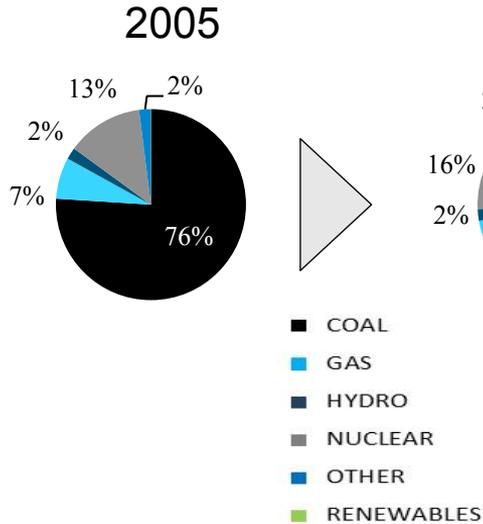
# The Power of Computing

80s-era technology vs.  
modern control display

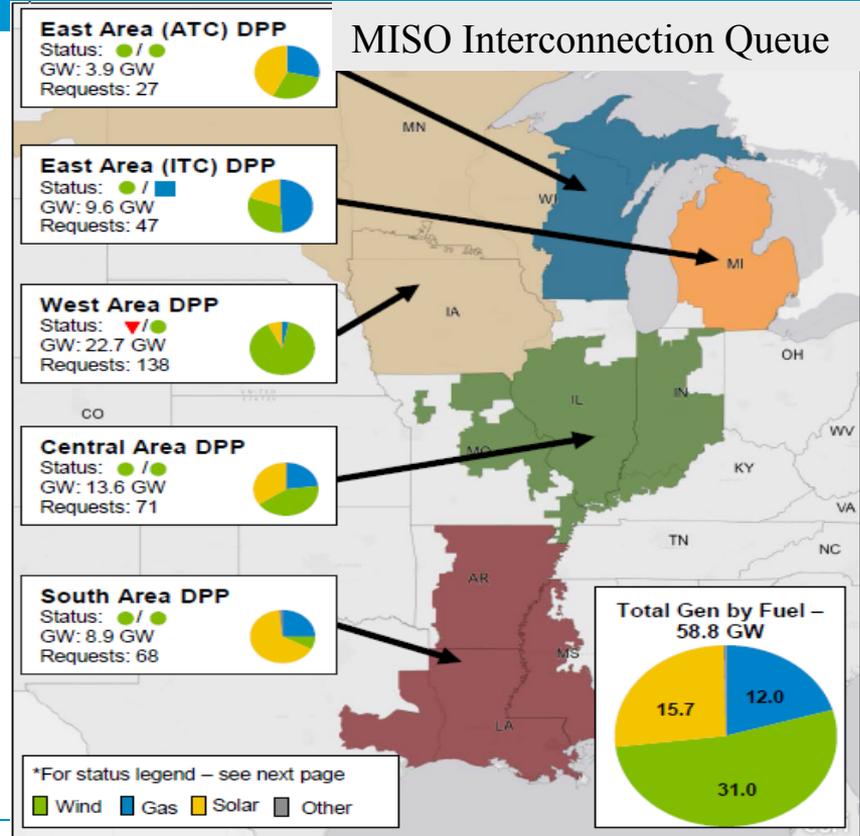


# Fleet Transformation

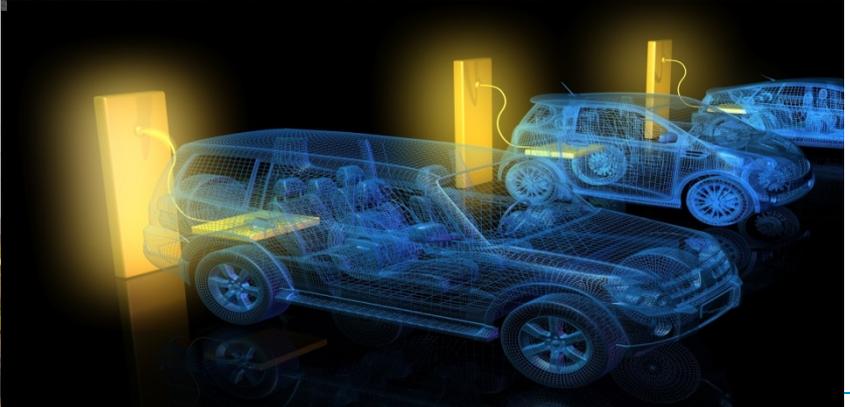
## MISO Generation Portfolio Evolution



## MISO Interconnection Queue



# Storage is cost effective



# “The Grid as a Battery”



# Everybody wants in



**"I'm trying to organize a stampede,  
but everybody's got her own agenda."**

# Key takeaways

- Change, uncertainty are not new concepts
- Shale gas = game changer
- Storage *is, has been, and will continue to be* cost effective
- Regulatory and market changes must keep pace