

MGA Renewable Electricity &  
Advanced Coal with Carbon Capture and Storage  
Advisory Group (REACCS)

# **Renewable Electricity & Transmission Initiative Subgroup Meeting Notes**

**May 11<sup>th</sup>, 2009  
Minneapolis**



# MGA Transmission Subgroup Goals

1. Updated state survey of load serving entities (LSE) on renewable energy development by 2030.
2. Survey of state and provincial public utility commission authority for regional transmission projects.
3. Complete transmission plans including costs that support MGA platform renewable energy goals.
4. Multi-state cost allocation proposal for regional transmission projects:
  - Upper Midwest Transmission Development Initiative (UMTDI) states (ND/SD/MN/IA/WI)
  - MISO/MGA footprint

# State survey of Load Serving Entities

- Midwest Independent System Operator (MISO) survey of MN/IA/WI/IL complete in September, 2008.
- Survey of all Midwest ISO states and Kansas/Nebraska will be done by Midwest ISO and MGA in May, 2009 with results expected by July, 2009.

# MGA Commission Survey Results

- Summary and draft recommendations complete and posted on MGA website and shared with Organization of MISO States.
- Recommendations on “model legislation” and/or possible areas of collaborative state processes complete.
- Federal intervention or taking of states’ rights on need/cost/routing still an issue.

# Discussion of model legislation for regional transmission projects

- Is language governing “joint hearings” practical?
- Should the “joint hearing” language be kept relatively vague (as in the current draft) or be made more specific?
- What do you do if a state doesn’t want to reciprocate? (probably nothing to recommend that would resolve this).
- This is a good start toward sending the signal that states need to work out these multi-state transmission issues before the feds. step in.
- Send any changes to [Jjohnson@gpisd.net](mailto:Jjohnson@gpisd.net) by end of business on May 25<sup>th</sup>.

# Discussion of model legislation for regional transmission projects

- Language should explicitly recognize the need to NOT abridge the public's due process rights under conventional single-state siting rules.
- May want to consider language that enables a two-state process. Would be a way to move toward larger multi-state cooperation.

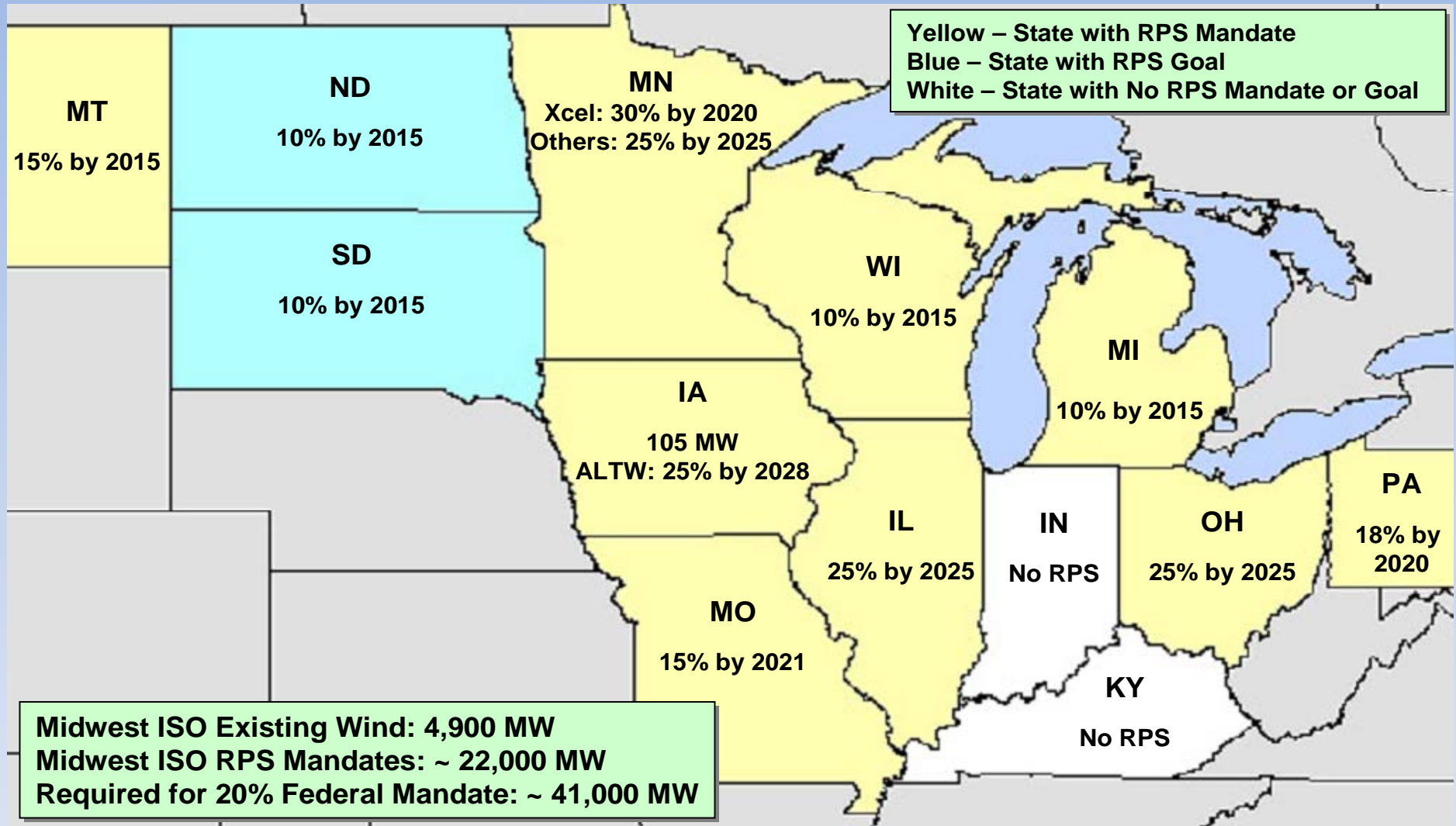
# Transmission Studies on Meeting The MGA Renewable Energy Goals

<b>Transmission Study</b>	<b>Potential MW of wind sited in MGA region</b>	<b>Timeline</b>	<b>MGA States in Study Region</b>
Regional Generator Outlet Study (RGOS) Phase I	15,000 MW	Initial Results June, 2009 Final August, 2009	UMTDI states MN/IA/WI/ND/SD (IL included)
RGOS Phase II	25,000 MW AND 40,000 MW	Study begins in May Results by October?	Midwest ISO states Plus KS/NE.
Joint Coordinated System Plan (JCSP)	90,000 to 120,000 MW	Complete (Indicative results for 20% national RPS)	Midwest ISO/PJM/TVA/SPP (NYISO/NE out)
Southwest Power Pool (SPP) Regional Transmission Study	2,000 to 12,000 MW	2009/2010	KS, NE, MO for MGA region

# MISO RGOS Phase I Study

- First results in June with final report by August
- Results needed by UMTDI to complete cost allocation
- First phase 15,000 MW of wind power
  - 20 Renewable Energy Zones (REZ) in UMTDI states (ND/SD/MN/IA/WI)
  - 9 REZ in Illinois (IL must be included in study)
  - Both 345 and 765 kV option
- Second phase 25,000 MW
  - 20 REZ in UMTDI states
  - 4 REZ in Ill
  - Both 345 and 765 kV option

# Current Midwest ISO RPS Requirements



Existing Wind In-Service as of 12/31/08

# MISO RGOS Phase II Study

- First work group scoping meeting May 14
- Initiate LSE survey of renewable energy development for all MISO states and Kansas/Nebraska
- Determine REZ for 25,000 MW and 40,000 MW of wind development
- Transmission studies for 345 and 765 kV
- Build off of RGOS Phase I and UMTDI results

# Cost Allocation/Sharing Work Groups for Regional Transmission Projects

Midwest ISO Regional Transmission  
Cost Sharing Agreement

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graph TD; A[Midwest ISO Regional Transmission Cost Sharing Agreement] --- B[Upper Midwest Transmission Development Initiative (UMTDI)-9/2009]; A --- C[Organization of MISO States (OMS) Cost Allocation Task Force- Late 2009]; A --- D[Midwest ISO RECB III Work Group 2/2009 Start- early 2010 finish?]
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Upper Midwest Transmission  
Development Initiative (UMTDI)-9/2009

Organization of MISO States (OMS)  
Cost Allocation Task Force- Late 2009

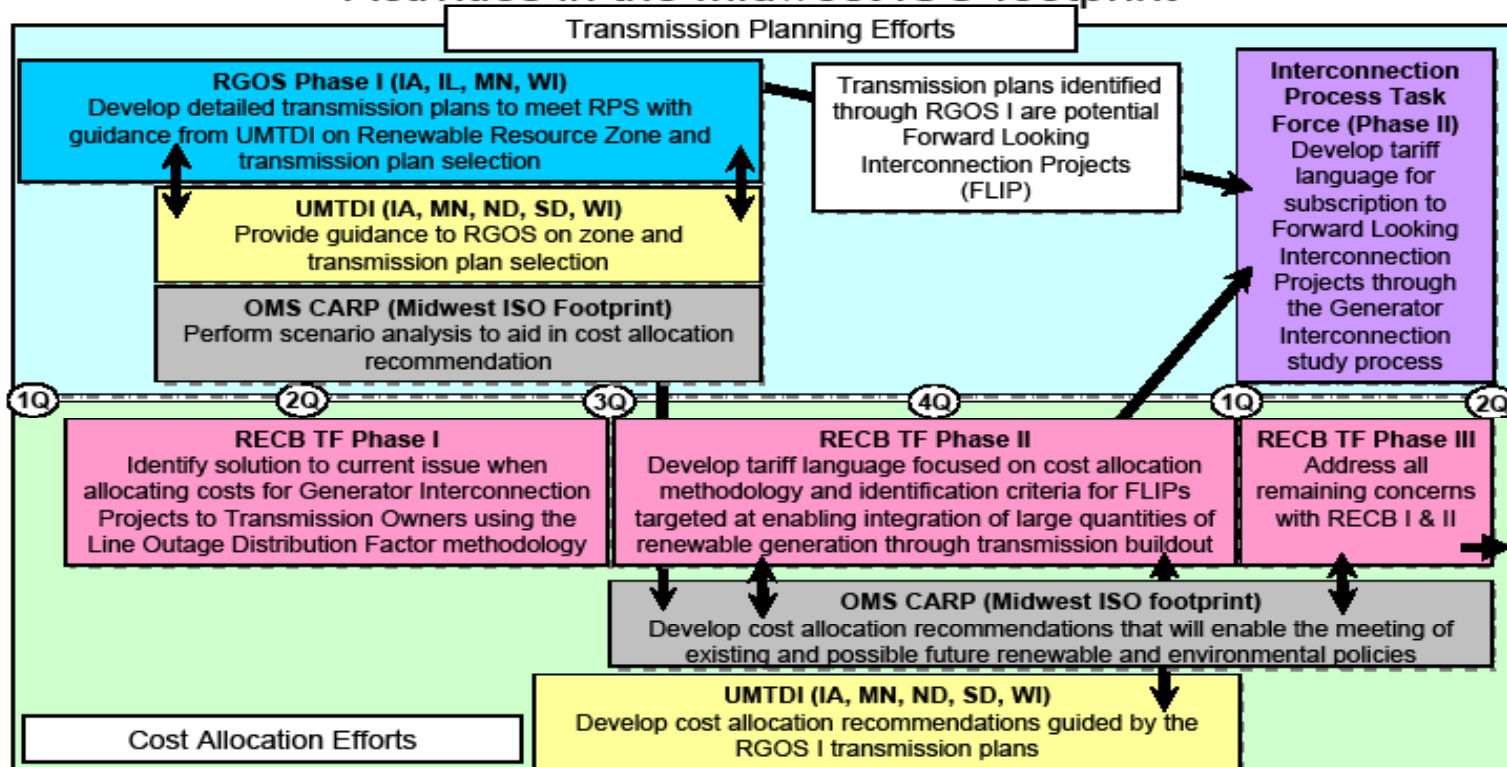
Midwest ISO RECB III Work Group  
2/2009 Start- early 2010 finish?

# MGA Transmission Cost Allocation Work Groups Update

- UMTDI has met publicly once and in executive session several times. REZ zones approved in two scenarios for MISO transmission studies. “Cost principles” published for comment.
- Midwest ISO Regional Expansion & Criteria Benefit (RECB) III task force has met monthly. They will complete proposed fix for Line Outage Distribution Factor (LODF) cost allocation issue first and then deal with “Forward Looking Interconnection Projects” cost allocation.
- OMS has met monthly and is currently reaching agreement on modeling scenarios and then in June will use those modeling results to discuss generation/transmission plans and cost sharing options

# Midwest ISO Cost Allocation

## Environmental Policy Planning and Cost Allocation Activities in the Midwest ISO footprint



# Federal Transmission Legislation

- How to implement higher renewable energy goals and associated transmission both in west and Midwest?
- Reid/Bingaman/Dorgan legislative proposals for federal oversight on EHV electric transmission
- Senate energy bill also has provisions for transmission
- More authority to FERC and DOE to mandate EHV transmission build out and cost recovery
- Mandates versus incentives

# Federal Transmission Idea

- Federal tax on all electric generation.
- Provide fund similar to highway fund to pay a % of EHV transmission that meets development criteria.
- Allow fund to also pay for upgrades (i.e. 345 to 765) that state regulatory process cannot justify.
- Allow equity ownership signup.

# MGA Transmission Subgroup Milestone Dates

- Updated state survey of load serving entities (LSE) on renewable energy development by 2030.
  - MN/IA/WI/IL complete, all jurisdictions complete August/09.
- Survey of state and provincial public utility commission authority for regional transmission projects.
  - Complete.

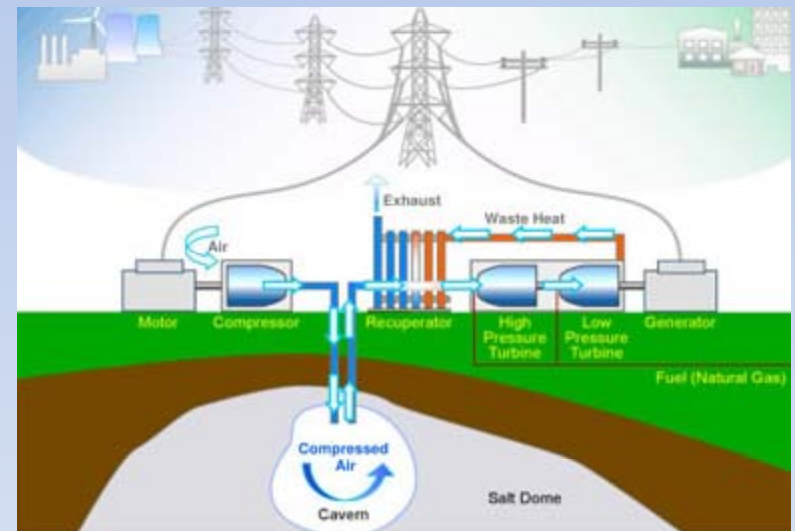
# MGA Transmission Subgroup Milestone Dates (cont.)

- Complete transmission plans including costs that support MGA platform renewable energy goals.
  - RGOS Phase I July, 2009
  - RGOS Phase II October, 2009
  - Joint Coordinated System Plan Complete
- Multi-state cost allocation for regional transmission projects:
  - UMTDI states (ND/SD/MN/IA/WI)
    - August/September 2009
  - MISO/MGA footprint
    - October 2009

# Topics for Potential Renewable Energy Recommendations

# Energy Storage

1. Role of storage on the grid for all types of generation?
2. Should generation be considered a generation, transmission or distribution asset?
3. Should “storage” have its own regulatory category for cost-recovery purposes?
4. Etc.



# Storage Discussion

- We should address storage in particular places from the Policy Options Document (e.g., RE1 and RE6, RE7, RE8).

# Storage Discussion

- If paired with renewables. . .
- Is storage really the best investment for scarce resources given the current penetration rate for renewables?
- Akin to peaking plants used to manage peak loads.
- Storage is OK if it's predicated on the performance of the whole electric grid system, but not as a prerequisite for building additional wind.

# Wind Siting

1. Develop “wind siting principles”
  - Akin to the CCS principles already developed, but devoted to wind instead
  - Help guide where 83,000 turbines would go (if 100% of MGA renewables goal were met with wind)
  - Articulate wind rights
  - Articulate contracting best practices.



# Wind siting discussion

- Should recognize the good GIS work that has been done by conservation groups on siting.
- Transmission planners and conservation groups need to be working out siting issues.
- Wind rights and contracting feel like different issues that siting and should be handled separately.
- Keep all three of these issues (see POD).

# Wind siting discussion

- Here are “best practices”, but beyond that not sure what more this group can usefully add.
- Might scare people if they think that MGA is trying legislate local land use.
- Important issue, but may not be “ripe” as an issue just yet.
- Should remain as an area for potential recommendation to governors.

# Renewable Energy Payments (also called “feed-in tariffs”)

1. Producers are paid premium rate or "tariff" for each kW of energy they "feed into" the grid.
2. 20 states are considering REP legislation, including:
  - Indiana, Iowa, Illinois,, Michigan, Minnesota, and Wisconsin.
3. REACCS could recommend key elements of any REP policy



# Typical elements of REPs

1. All producers guaranteed access to grid and ability to sell their energy to their utility company.
2. Utility companies sign 15-20 year contracts with all their renewable energy producers. All contracts are transparent and open for inspection.
3. The contracts include long-term agreed upon prices that the utility companies will pay for the energy they buy. The prices are set high enough to be an incentive to new producers and for existing producers to expand their production capacities.
4. Prices vary according to the source of the energy (i.e, sun, wind, water, bio-mass, etc.) and the size of the energy-producing installation.
5. The utility companies can recoup their increased costs of paying higher prices for renewable energy by spreading these costs among all their customers.
6. An Independent Review Board is established by the government that periodically sets the prices and terms for new contracts.

**Source:** Alliance for Renewable Energy: [www.allianceforrenewableenergy.org](http://www.allianceforrenewableenergy.org)

# “Feed-in tariffs” Discussion

- Great interest, but controversial.
- Especially in states that already have RPSs, FITs can seem duplicative.
- RPS and FIT are in conflict.
- FITs use market incentives to foster investment.  
Would like to see it included.
- Should be included, given how successfully they’ve been used in other parts of the world.
- DOE now has some advice about how to integrate RPSs and FITs

# Feed-in Tariffs Discussion

- Can help incentivize smaller energy producers (e.g., those w/o large tax appetite).
- To head-off NIMBY-ism for siting, there need to be more ways for locals to benefit from wind production.
- How do you set the price in a way this isn't wrong the minute you set it?
- MI, OH and MO just got DOE grant to do a solar resource assessment.
- Consider a "reverse auction" for price discovery.

# Next Steps

- Should FITs be by themselves or part of a larger set of policy recommendations aimed at smaller producers (RE-6)?
- Recommending FITs might be a great way for MGA to help establish a large regional market for smaller-scale renewables.
- Staff to develop draft recommendation language on the three issues discussed and engage interested participants in that effort.