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Wind Integration Initiatives in the U.S. Midwest

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Iowa Utilities Board (IUB)



Mission and Vision Statements

- **Mission**

The Iowa Utilities Board regulates utilities to ensure that reasonably priced, reliable, environmentally responsible, and safe utility services are available to all Iowans.

- **Vision**

The Iowa Utilities Board is valued as the regulatory expert and solutions-oriented partner in electric, natural gas, and telecommunications issues.



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Decision-Making Independence

- **The Value of an Independent and Impartial Regulator**
 - The basis of due process is notice and opportunity to be heard
 - The person doing the hearing must be impartial: fair and unbiased
 - The person must abandon his/her own personal views and be bound by the law or the contract
- **The Independent Regulator Must:**
 - Not have prejudged the issues of fact or the parties
 - Not have a personal bias or prejudice toward parties which might impede his/her ability to judge the issues of fact fairly
 - Not have a personal interest whereby he/she stands to gain or lose from the outcome
- **Code of Administrative Judicial Conduct (481 IAC Chapter 10)**
 - Canon 1: A presiding officer shall uphold the integrity and independence of the administrative agency.
 - Canon 2: A presiding officer shall avoid impropriety and the appearance of impropriety.
 - Canon 3: A presiding officer shall perform the duties of the office impartially and diligently.
- **Issue: Adjudicative vs. Policy Function of the Board Members**
 - These cannons shall be applied [. . .] as reasonably practicable when taking into account the₄ fact that [Board Members] **unlike administrative law judges, have multiple duties imposed upon them by law.**” 481 IAC 10.29.



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Open Transparent Process

- Open Meetings Laws
 - I.C. Section 21.2 – Meeting – basic rule is that a quorum of a governmental body may gather informally, IF the conversation is social and discussion of business is saved for scheduled meetings BUT a governmental body "meets" when there is: **any gathering** in person or by telephone conference call or other electronic means, whether formally noticed or informally occurring, **of a majority of the members, at which there is any deliberation or action** upon any matter within the scope of the governmental body's policy-making duties.
- I.C. Section 21.4 - Advance Notice of Public Meetings – a basic tenet of Iowa's Open Meetings Law is that a governmental body must provide advance notice of the time, date and place of each meeting, plus a tentative agenda. Ex Parte Communications – 199 IAC 7.22
 - “ex parte communication is prohibited [. . .]. Parties and their representatives shall not directly or indirectly with the board [. . .] except upon notice and an opportunity for all parties to participate.”
- Inspection of Public Records – 199 IAC 1.9(1)
 - “any interested person may examine all public records of the board.”

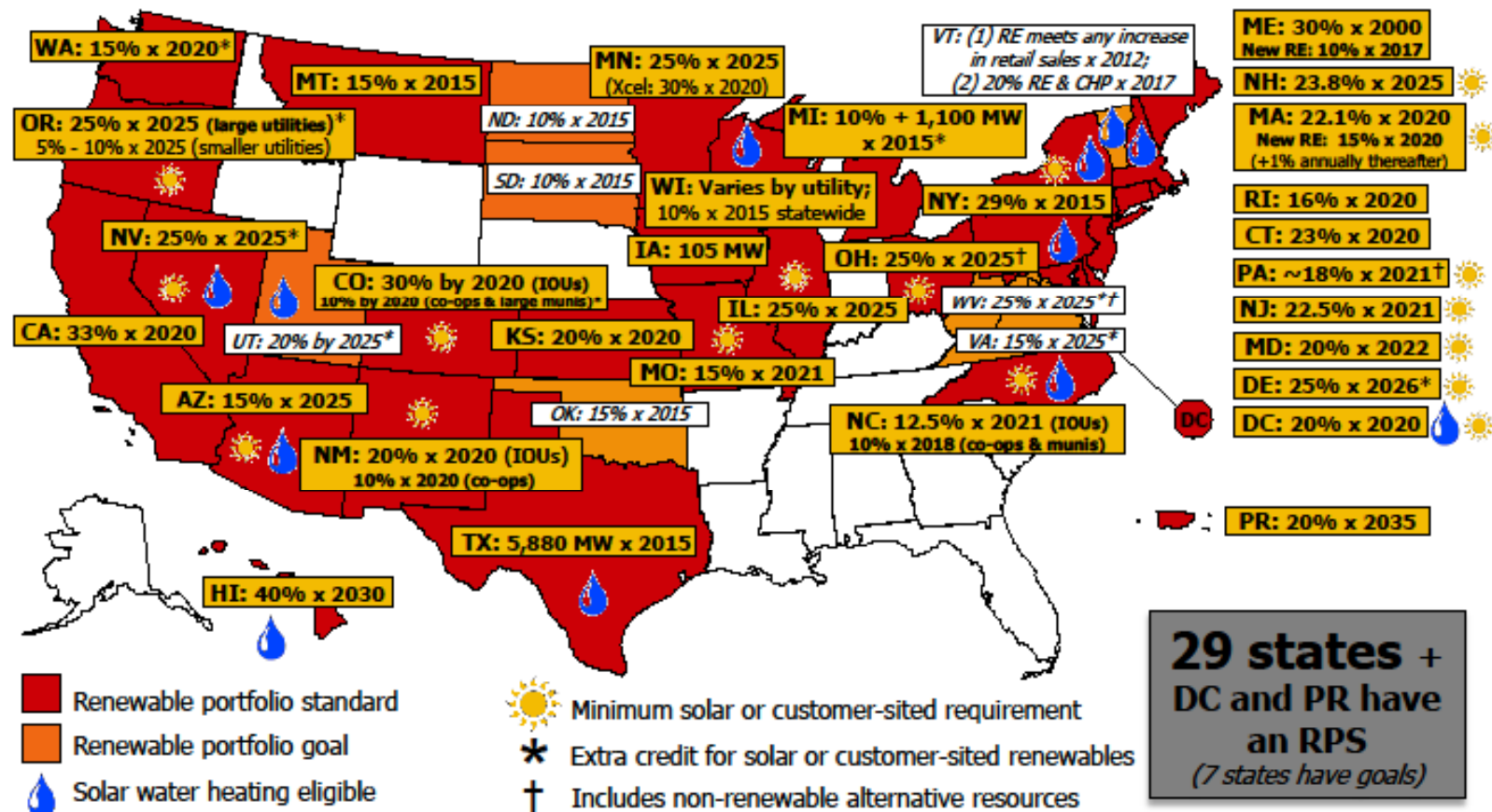


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Renewable Portfolio Standards





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Climate Regulation

"The elephant in the room is carbon policy. It is difficult to plan when you don't know exactly what we are planning for."

-John Norris, FERC Commissioner

What will it look like?

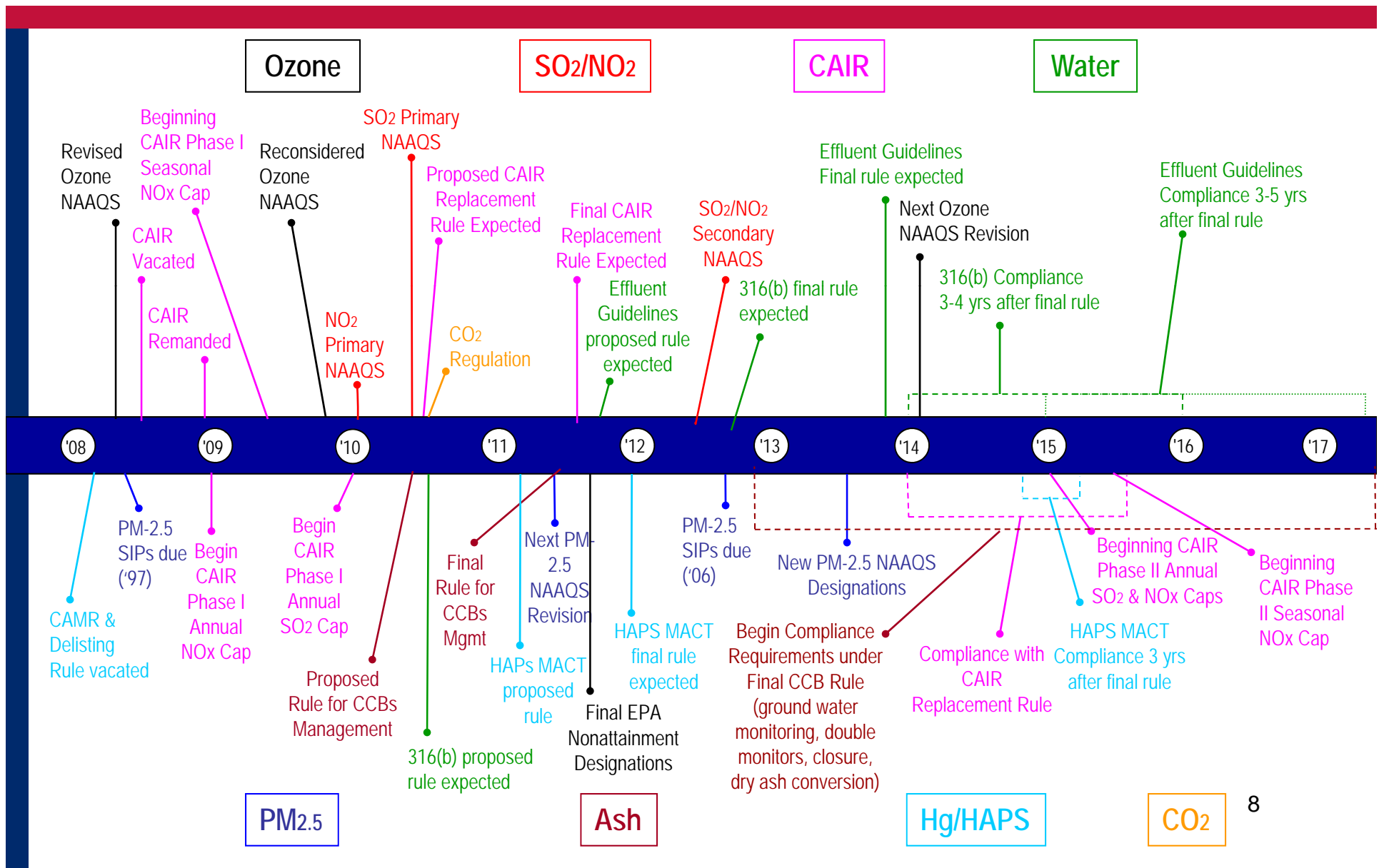
| Proposal | Obama Proposal | Waxman-Markey | Kerry-Lieberman-Graham |
|----------------------|--|---|---|
| Structure | Economy-wide cap and trade, renewable electricity and energy efficiency standards, clean energy investment | Utility, industry, and petroleum sector cap, renewable electricity and energy efficiency standards, clean energy investment | Utility (2012) and industry (2016) cap and trade with linked fuel carbon fee, renewable electricity and energy efficiency standards, consumer rebates |
| Emissions Reductions | 15% by 2020 80% by 2020 | 17% by 2020 80% by 2050 | 17% by 2020 80% by 2050 (for capped sectors) |
| Allowances | Full auction | Allocations based on historical emissions (50%) and retail sales (50%) | ? ⁷ |



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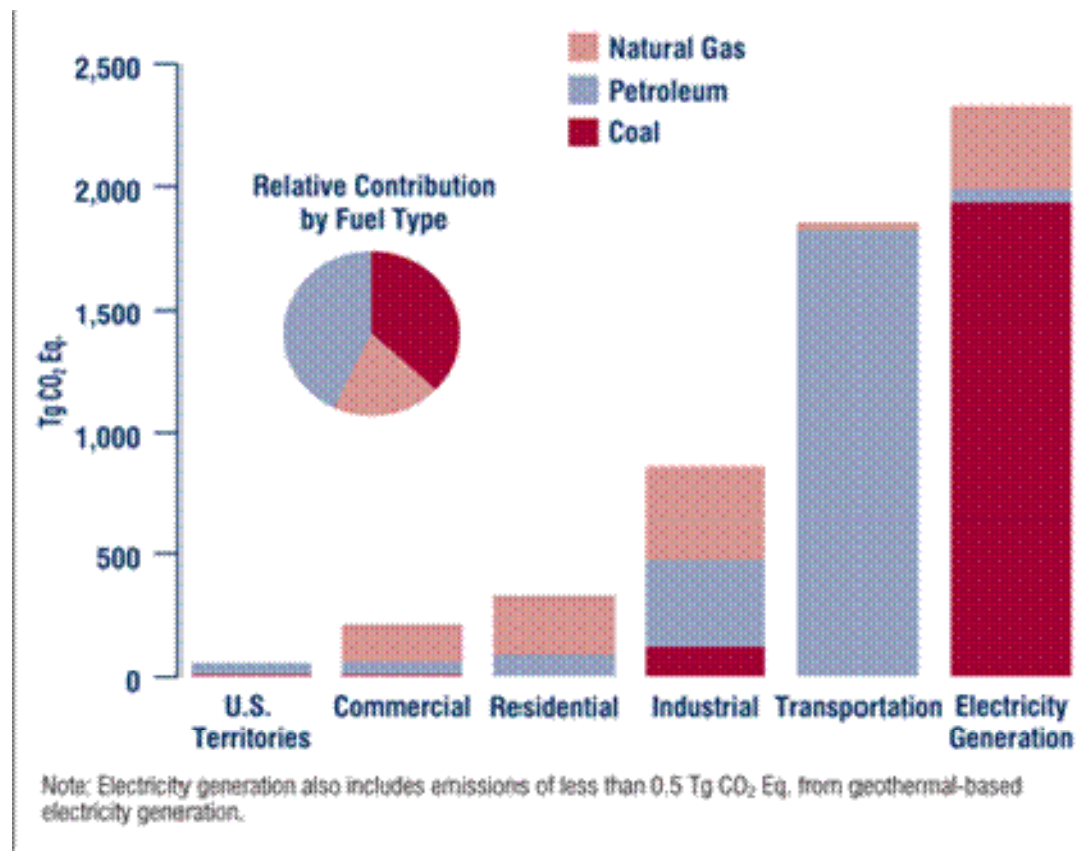


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U.S. CO₂ emission from fossil fuels by sector and fuel type – 2006



Source: [U.S. Greenhouse Gas Emissions Inventory](#) (y-axis units are teragrams of CO₂ equivalent)

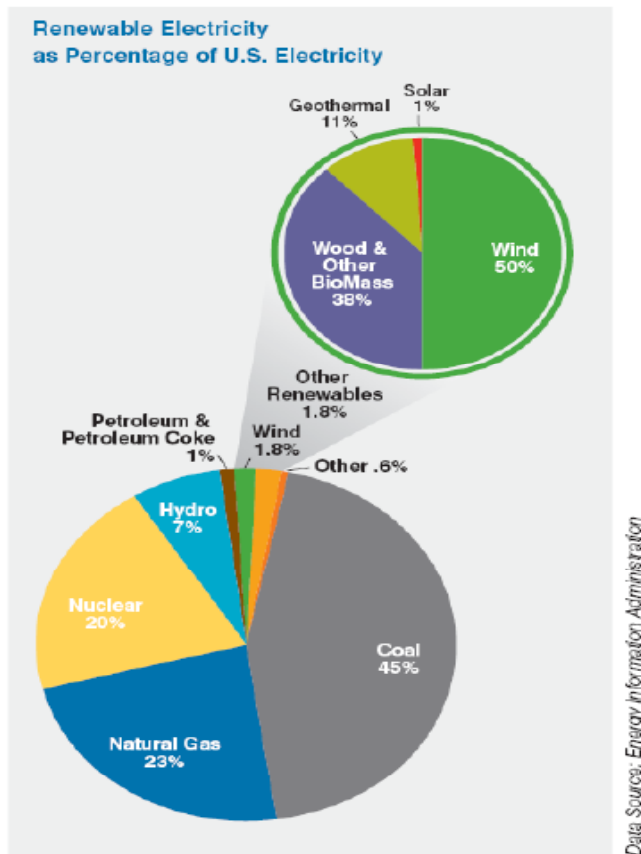


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U.S. GENERATION MIX



Wind generation is approaching the two percent mark of the U.S. power mix, reaching 1.8% of U.S. generation in 2009. This is an increase from 1.3% of generation at the end of 2008.

All renewable energy sources provided 10.5% of the U.S. power mix in 2009.

With the significant increase in renewable energy capacity over the past several years, the power mix is reflecting a slow but steady shift toward renewable energy.



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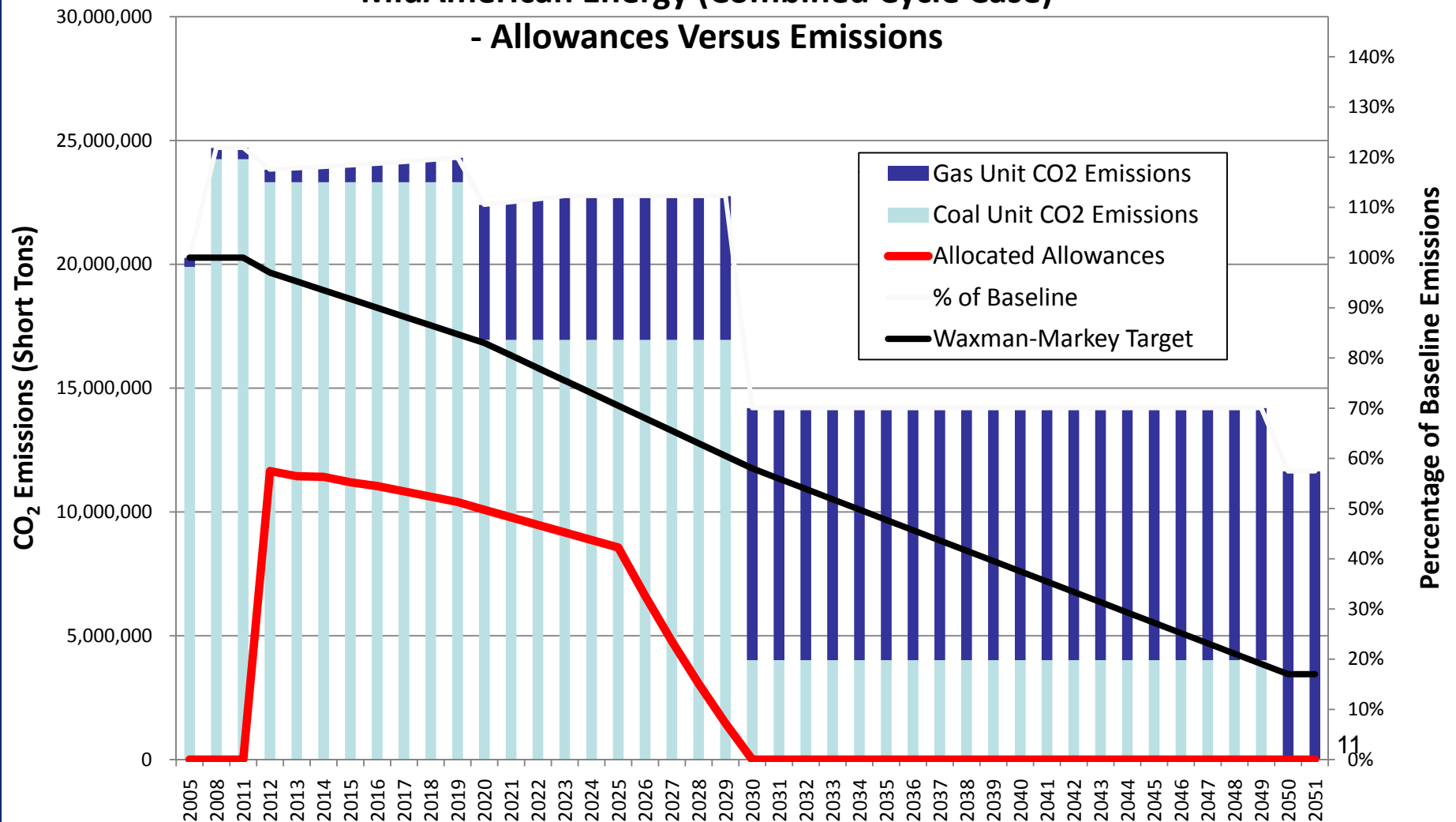


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Climate Regulation

MidAmerican Energy (Combined Cycle Case)

- Allowances Versus Emissions





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Iowa Code Chapter 476

476.41 Purpose:

“It is the policy of this state to encourage the development of alternative energy production facilities...in order to conserve our finite...resources and to provide for their most efficient use.”



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Iowa – A National Leader in Wind Development

- Iowa has become an epicenter for wind development. Regulated IOUs as well as independent merchant generators are building wind farms in Iowa. Federal stimulus money has been a significant driver of wind development. If a national RES is created, it would further incent development.
 - 2,534 towers are up and running in Iowa today; 3,670 MW
 - 121 turbines planned in the immediate future; 200 MW
 - 534 towers added in 2009; 879 MW
 - 78 installations in Iowa (Installation is defined as any single construction project. For example, a single school turbine and the third major addition to a particular farm would both be considered installations)
- source: Iowa Office of Energy Independence
- Merchant Generators vs. IOUs



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RPU-2009-0003: MidAmerican Energy Company (MEC) Advanced Ratemaking Principles

Policy issues laid out by MEC:

- MEC does not need additional capacity; could not establish need for new coal plant; however...
- Building wind facilities:
 - Diversifies fuel supply
 - Complies with environmental policy
 - Including any future carbon policy
 - Promotes Economic Development in Iowa
 - Is in line with Iowa's energy policy



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RPU-2009-0003: MidAmerican Energy Company (MEC) Advanced Ratemaking Principles

Need:

- Times have changed. No longer a capacity/demand analysis; Environmental factors play a role as well.

“The Board believes that public policy factors and noncost factors play a role in determining need for a proposed generation project.”

“MidAmerican has a need for Wind VII and that Wind VII benefits ratepayers by, among other things, enabling MidAmerican to meet current and future environmental regulations and likely carbon emission constraints, provide low-cost energy to retail customers, reduce MidAmerican’s reliance on carbon-based generation, and diversify MidAmerican’s supply portfolio.”



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Permitting and Siting

Iowa Code 478.3 (2)

“Petitions for transmission lines capable of operating at sixty-nine kilovolts or more and extending a distance of not less than one mile across privately owned real estate shall...show...”

- a. The relationship of the proposed project to present and future economic development of the area.
- b. The relationship of the proposed project to comprehensive electric utility planning.
- c. The relationship of the proposed project to the needs of the public presently served and future projections based on population trends.
- d. The relationship of the proposed project to the existing electric utility system and parallel existing utility routes.
- e. The relationship of the proposed project to any other power system planned for the future.
- f. The possible use of alternative routes and methods of supply.
- g. The relationship of the proposed project to the present and future land use and zoning ordinances.
- h. The inconvenience or undue injury which may result to property owners as a result of the proposed project. The utilities board may waive the proof required for such allegations which are not applicable to a particular proposed project.



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Stakeholder Process

Occurs at many levels

3 Examples of processes Iowa is involved in:

- 1) Upper Midwest Transmission Development Initiative (UMTDI)
- 2) Cost Allocation and Regional Planning (CARP)
- 3) Eastern Interconnect States' Planning Council (EISPC)

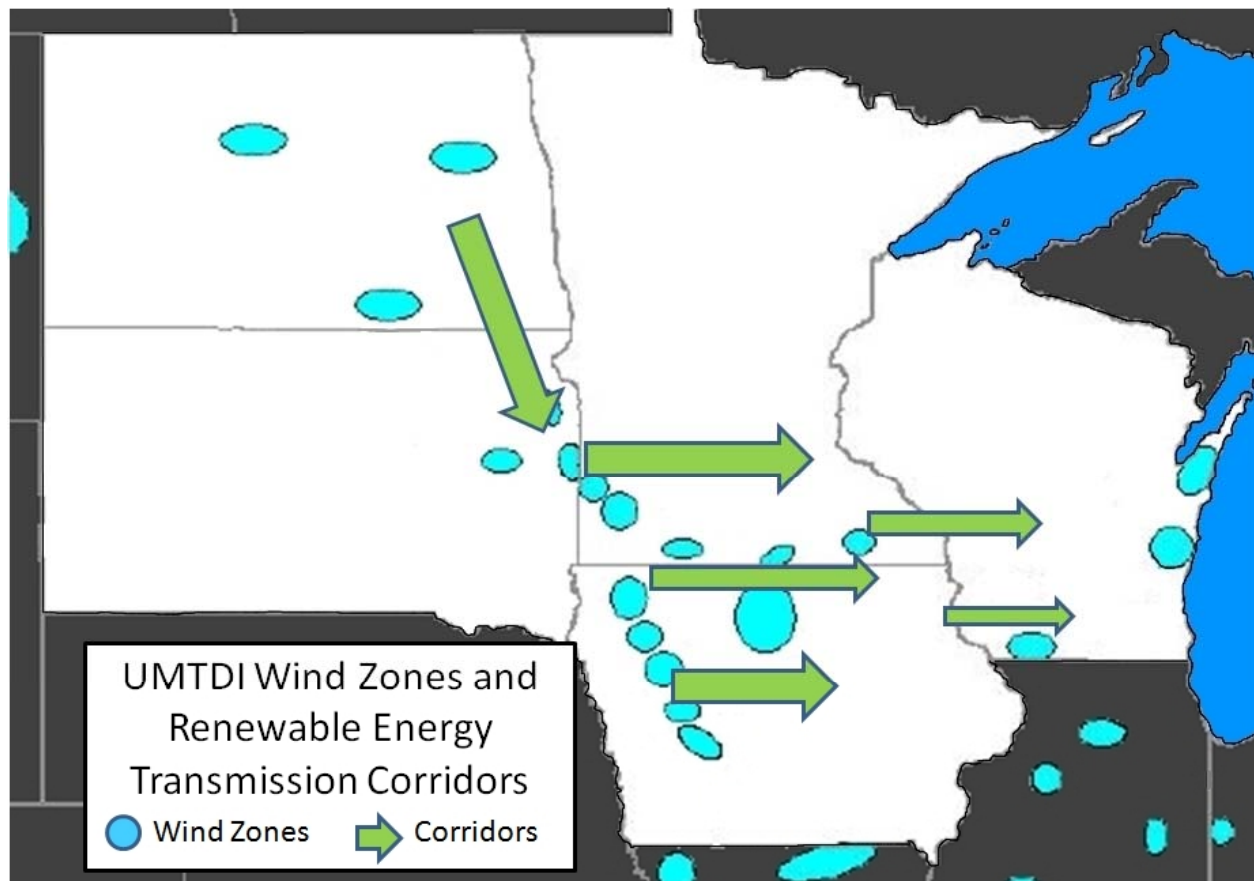


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UMTDI – Energy Zones/Transmission Corridors





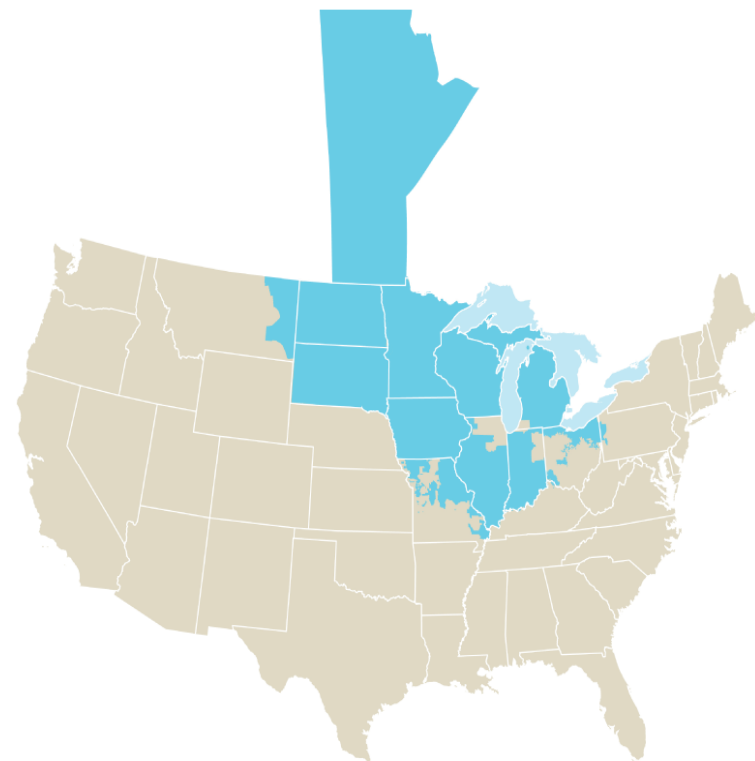
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Cost Allocation and Regional Planning (CARP)

- Effort led by Organization of MISO States (OMS)
- 2009 through July 2010
- Extremely detailed effort to guide new cost allocation within MISO
- States lead CARP and chair the MISO cost allocation effort RECB TF



Midwest ISO Regional Reliability Area¹⁹

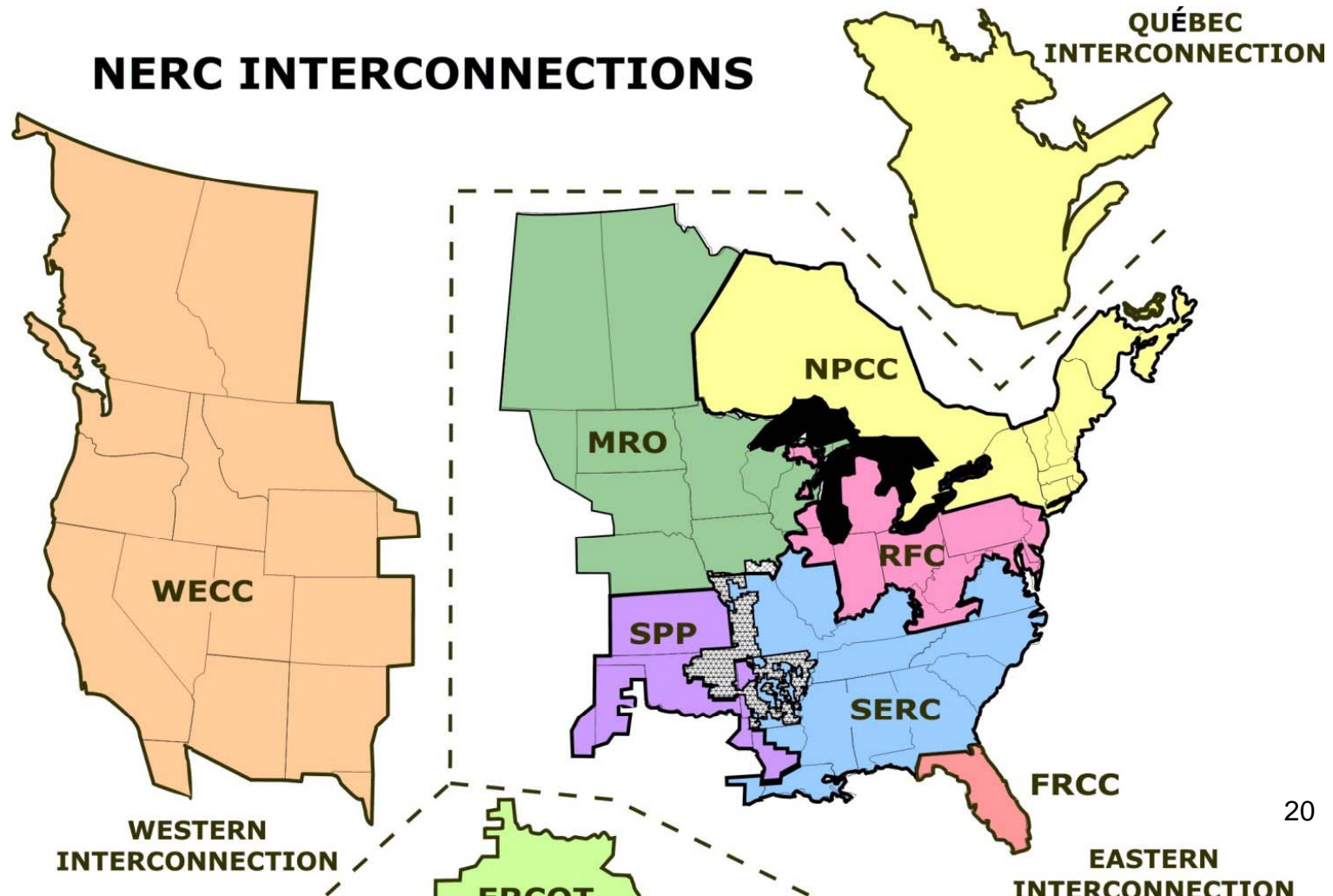


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Eastern Interconnection Planning



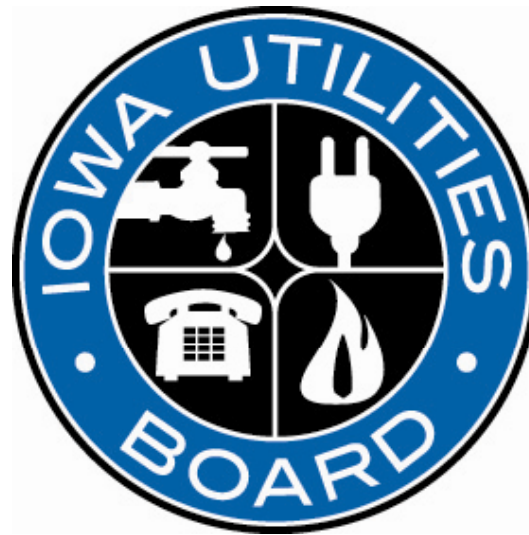


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Questions?



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