

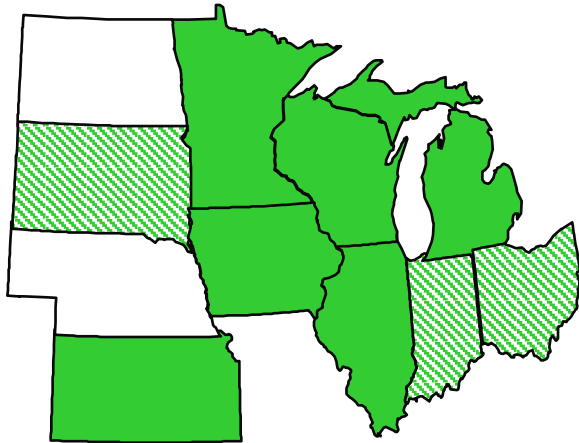
Midwestern Greenhouse Gas Reduction Accord

*Midwestern Greenhouse Gas
Reduction Accord*

Overview

- Brief Overview of the Accord Process
- What is Cap-and-Trade
- Cap and Trade Design Elements:
 - Targets
 - Data and Reporting
 - Program Scope
 - Allowance Distribution
 - Offsets
- Summary

The Process



- November 2007 Midwestern Greenhouse Gas Reduction Accord
- Participating: IA, IL, KS, MI, MN, WI & Manitoba
Observing: IN, OH, SD & Ontario
- Five subgroups – Scope, Target Setting, Modeling, Allowances, Offsets

The Process

- Development of recommendations
- Review of additional data and analysis, followed by final recommendation in March or April 2009
- Model Rule Subgroup to turn recommendations into model regulations

What is Cap-and-Trade?

- Establish maximum amount of emissions across a group of emitters
- Group of emitters can include emitters from multiple sectors
- Government issues “allowances”, or authorizations to emit. Each allowance “allows” holder to emit one metric ton GHG

What is Cap-and-Trade?

- Emitters must measure, monitor and report their emissions.
- At the end of each compliance period (3 years), emitters must surrender enough allowances to “cover” all of their emissions

What is Cap-and-Trade?

- Other than reporting emissions and surrendering allowances, emitters determine how to act:
 - An emitter can continue to operate as before, and acquire (or hold on to) allowances to “cover” its emissions
 - An emitter can reduce its emissions and reduce its obligation to surrender allowances, thereby reducing the number it must buy, or freeing up allowances that the entity can sell to others
 - Thus, the “trade” part of cap-and-trade

Targets

Accord participants agree to establish regional GHG reduction targets and timeframes consistent with MGA member state and provincial targets, and long-term IPCC targets.

- Emission Reduction Targets
 - 2020 Target: Pending results of modeling (analyzing targets of 15, 20, and 25 percent below 2005 levels by 2020).
 - 2050 Target: Recommends a 60-80 percent reduction below 2005 levels by 2050.
 - Targets will be revisited and potentially adjusted based on future scientific findings, technology developments, and program results (part of broader, periodic program review).
- Reduction to be achieved by sectors covered under the cap should be proportionate to their share of total emissions, provided that, together with complementary policies, the program achieves the recommended regional reduction goal

Data and Reporting

- Reporting
 - Threshold for reporting pending source data. Interest in having threshold for reporting lower than threshold for coverage under the cap (allows data collection on emissions outside the cap, consideration of additional sources to add to cap, confirmation that sources aren't clustering right below the cap, etc.
 - But concern about number of sources included and impact
 - Preference for reporting to start a year before cap and trade start date (and data collection to begin two years prior) to ensure good data before requirements to hold allowances

Data and Reporting

- Reporting (continued)
 - Includes all six GHGs under the cap
 - Will use Climate Registry Information System (CRIS) (hosted and managed by TCR), modified to support mandatory reporting subject to verification and auditing, to collect and manage the Accord's regional database of emissions information.
- Data collection
 - Data collection continues. Still looking for information on electricity imports/exports.

Cap-and-Trade Scope

- “Scope” refers to the sectors that will be covered by the emissions cap.
- If a sector is included, entities emitting greenhouse gases (GHGs) in the sector (above a specified threshold) are required to hold allowances (authorizations to emit) to “cover” emissions.

Scope of the Cap

- Will cover six primary GHGs
- To date, focus has been on including:
 - Electricity
 - Industry (combustion emissions, and process emissions assuming development of robust measuring and monitoring protocols)
 - Transportation Fuels (to be included pending review of modeling results and other program elements)
 - Fuels serving buildings (residential, commercial & industrial); may be phased in during second compliance period

Allowance Value

- The creation of allowances can represent enormous value, depending on the breadth and depth of program reductions.
- Distribution of allowances distributes this value.
- The Accord Advisory Group has focused on purposes to be achieved through use of allowance value and discussed potential recipients for portions of this allowance value.

Allowance Value

- Allowance value should be put toward climate-related purposes, not other purposes. Climate-related purposes include three categories:
 - (1) accelerating transformational investment (development, deployment of low-carbon technologies and infrastructure);
 - (2) mitigating transitional adverse impacts of the program (on consumers, industry, workers);
 - (3) addressing harmful impacts due to climate change.
- Distribution mechanisms:
 - The decision on whether to auction or allocate allowances resides ultimately with the jurisdictions
 - Subgroup recommends mechanisms to safeguard allowance value (used only for climate-related purposes)

Allowance Value

- Proposal to use some allowance value for *Regional Low-Carbon Technology Commercialization Fund* that would support MGA Platform technology priorities, including 1) CCS technologies; 2) advanced biomass conversion technologies for biomass to liquids, SNG, and power; 3) other advanced efficiency, grid efficiency, and low-carbon energy technologies; 4) combined heat and power applications in the electric power and industrial sectors; 5) electricity storage; and 6) advanced low-carbon transportation technologies
- Compliance period (length of time for which covered sources must submit allowances equivalent to their emissions) of 3 years.
- Unlimited banking of allowances and offsets credits.
- Limited borrowing (from no more than two years beyond the end of the current compliance period).
- Early action will be recognized in the cap-and-trade program

Offsets

- Projects outside of the cap that reduce or sequester emissions of GHGs.
 - E.g., agricultural manure management & afforestation
- Projects receive emissions credits that capped entities can use for compliance
- Reduce program costs and direct revenue to desirable projects.

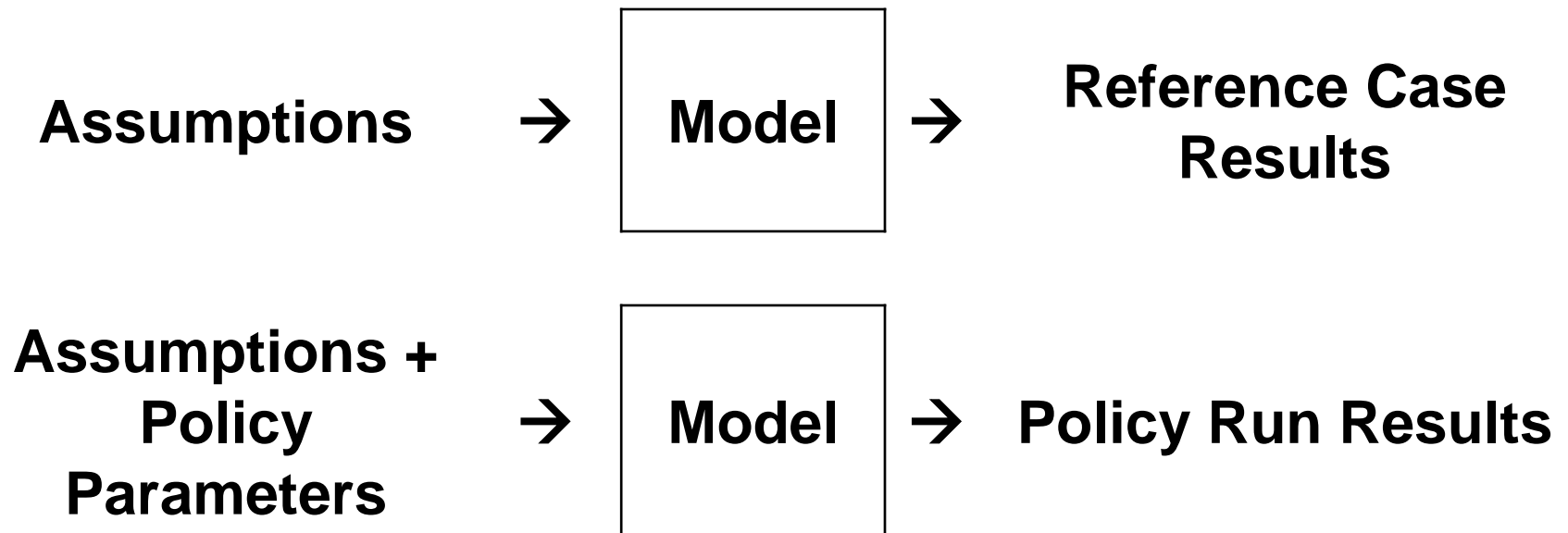
Offsets (continued)

- Midwest is committed to developing offset program with high degree of integrity
- Offset projects must be real, additional, verifiable, permanent, and enforceable
- Hybrid approach
 - Pre-defined protocols to provide certainty to project developers and reduce administrative burden
 - Initial set of protocols will be established before program launch.
 - Formalized mechanism to expand that list over time.

Offsets (continued)

- Topics under discussion
 - Project types that will be eligible
 - Offset limits
 - Geographic scope

Modeling - Overview



Policy Impacts = Policy Run – Reference Case

Modeling - Outputs

- Energy prices
 - Natural gas, coal, biomass, and electricity
- Electric power sector
 - Generation by fuel and technology
 - New generation, retirements, and retro-fits
 - Emissions
- Transportation, industrial, residential, and commercial sectors
 - *[Emission reductions]*
 - *[Energy efficiency and mitigation investments]*
- *[Offset purchases]*
- *[GHG allowance prices]*

Modeling – RefCase Summary

- Assumptions
 - Sources: EIA, EPA, Modeling Subgroup
 - Higher costs (oil, natural gas, and capital costs)
 - Low demand growth
- Reference Case Projections (MGGRA members)
 - < 8 GW in new electric gen. (wind and natural gas)
 - Electricity demand growth met by increased coal, natural gas, and wind generation

Summary

- Accord seeks to reduce greenhouse gas emissions from a wide cross-section of the Midwest economy
- Allowance distribution requires decisions about how to direct significant allowance value—and these decisions can complement the emissions reduction goals, and smooth the transition to a carbon-constrained economy
- Next steps: Review modeling results and preliminary recommendations for potential changes and additions.

Questions?