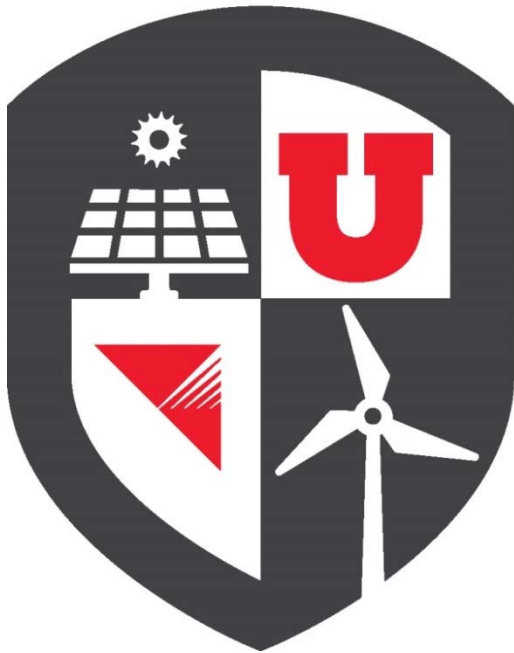


Jennifer McIvor

Vice President, Environmental Programs, Compliance and Permitting



A graduate of the Yale School of Forestry and the Vermont Law School, Jennifer leads environmental program compliance and permitting for MidAmerican Energy. Her responsibilities are two-fold: ensuring compliance with all of the company's environmental programs and developing compliance plans and strategies as new programs are developed and take effect.



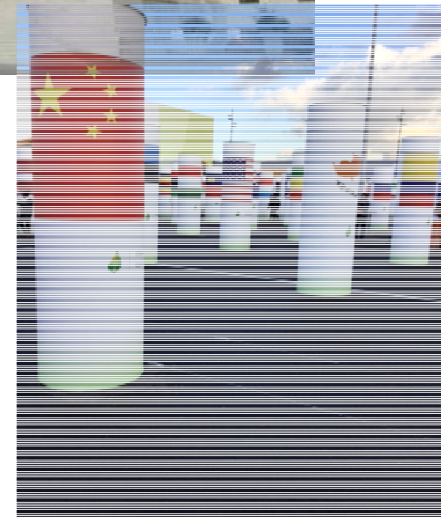
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Jennifer McIvor

Vice President, Environmental Programs, Compliance and Permitting
MidAmerican Energy Company



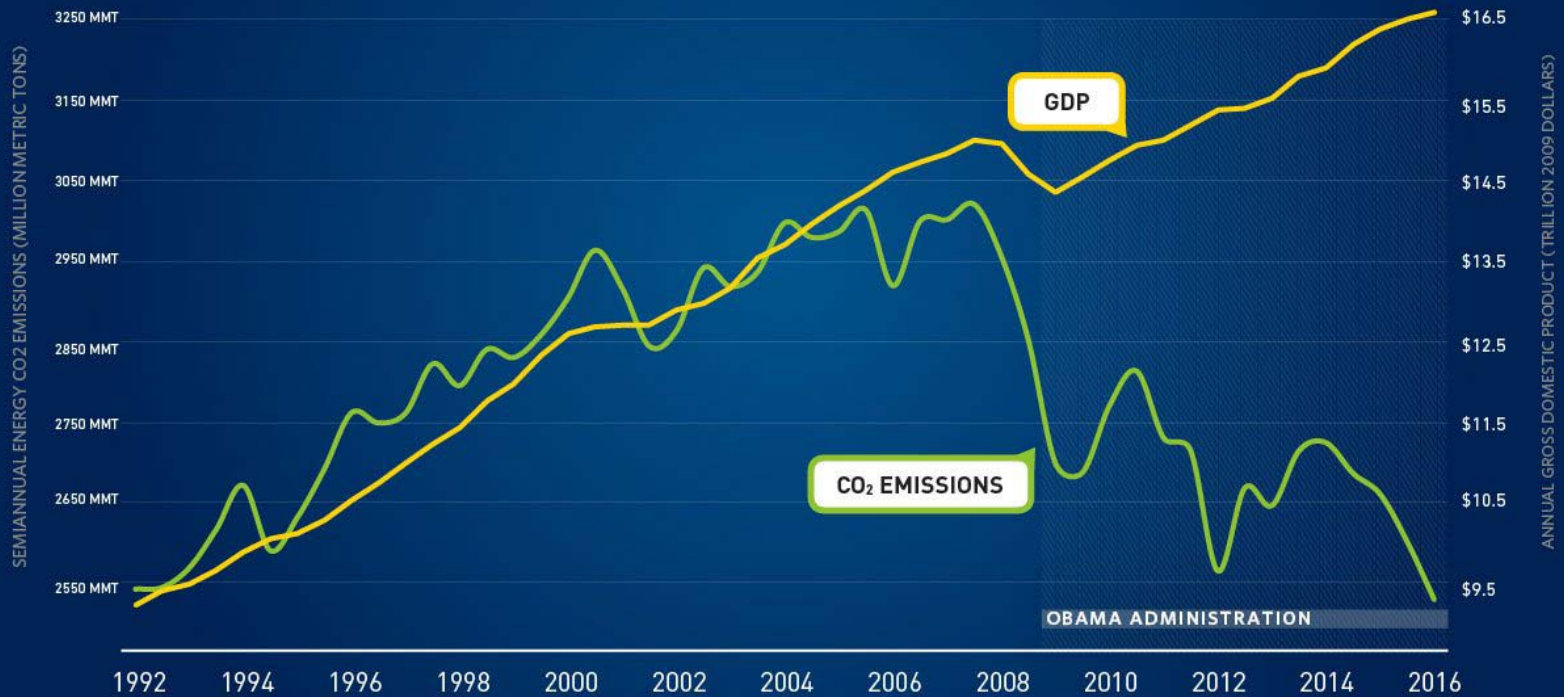
Perspectives on Carbon Regulations





U.S. CO₂ Emissions

IN THE FIRST 6 MONTHS OF 2016, CARBON POLLUTION FROM THE U.S. ENERGY SECTOR HAS HIT ITS LOWEST LEVEL IN 25 YEARS

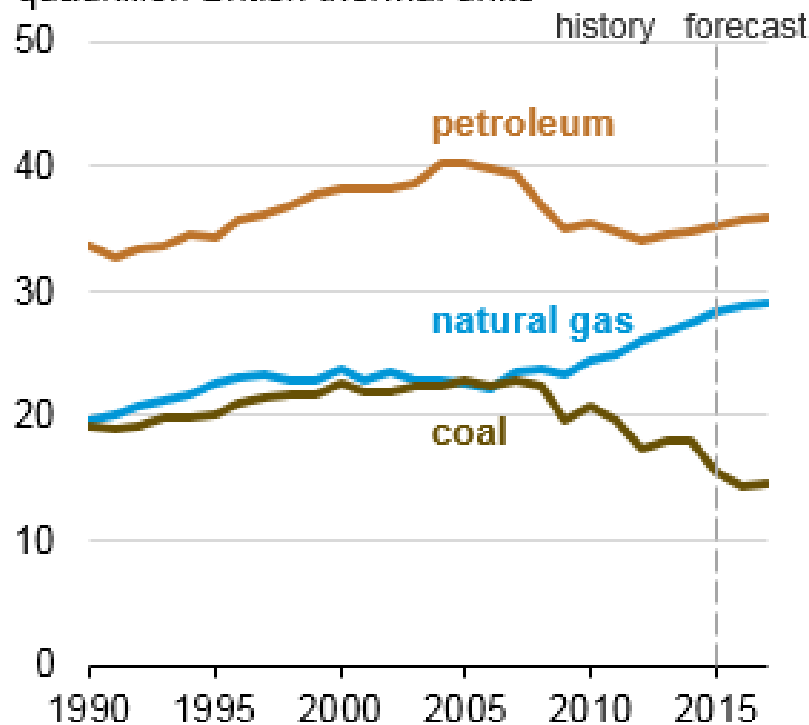


SOURCE: BUREAU OF ECONOMIC ANALYSIS, EIA

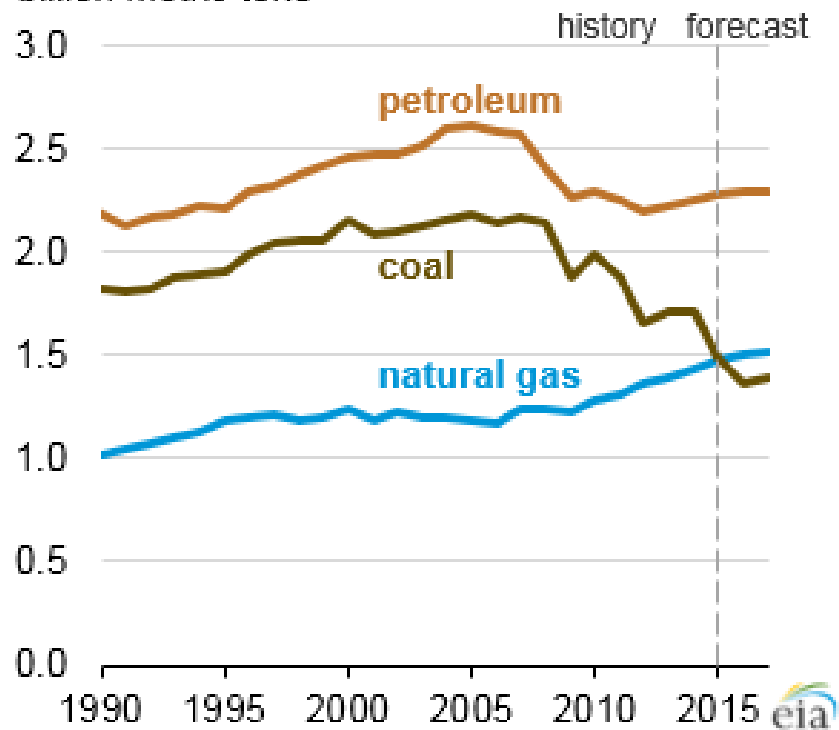


Natural Gas Emissions Surpass Coal

U.S. primary energy consumption by fuel
quadrillion British thermal units



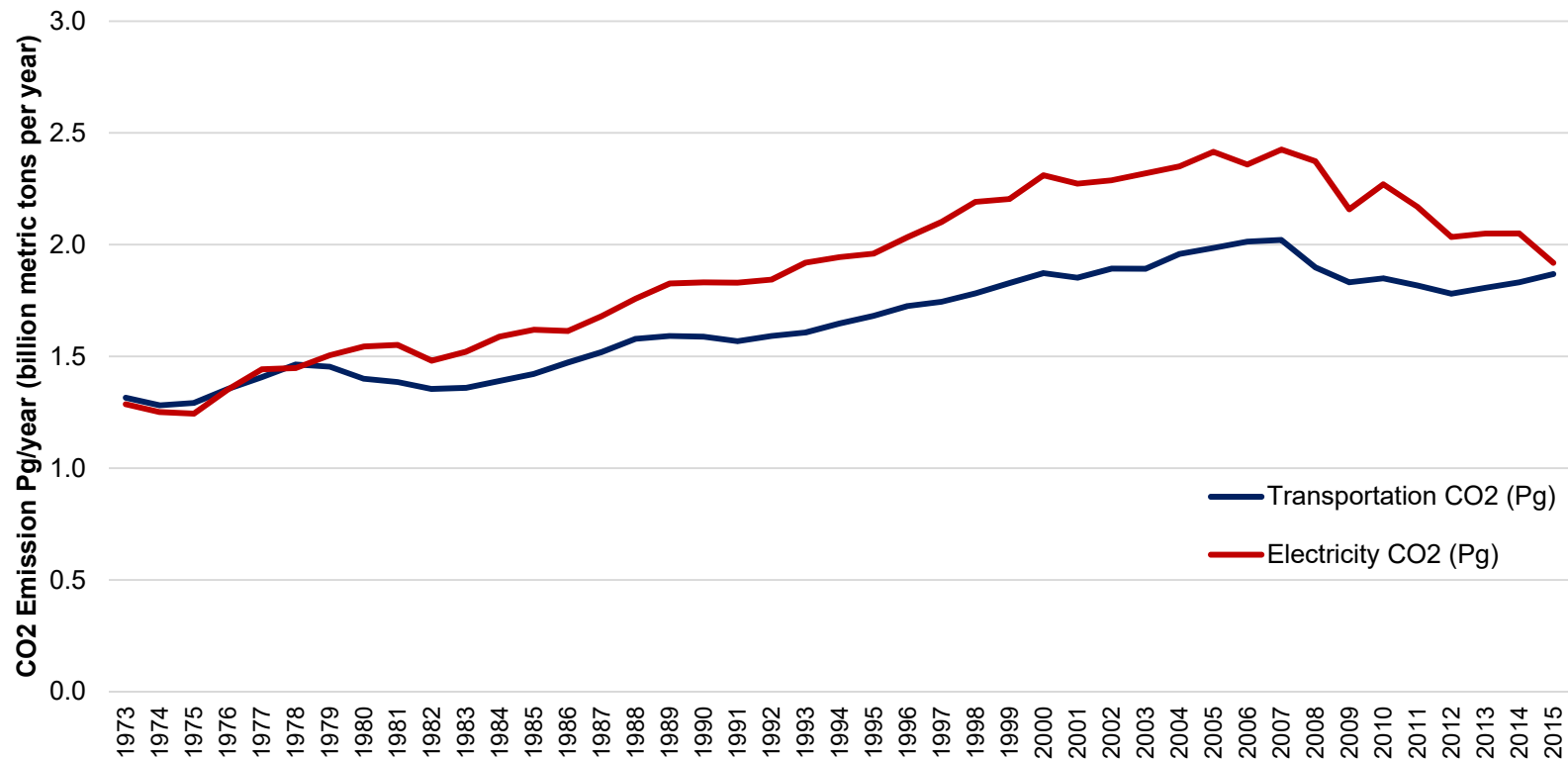
U.S. energy-related CO2 emissions by fuel
billion metric tons





Transportation Emissions to Surpass Coal

U.S. Annual CO₂ Emissions from Transportation and Electricity Sectors



Source: EIA Monthly Energy Review, September 2016



Clean Power Plan

- Aims for 32% reduction in emissions from 2005 levels by 2030
- State-by-state emissions limits – rate or mass
- Effective January 2022
- Achieve with combination of heat rate improvements, increased gas utilization, deployment of renewables
- Pending federal plan, model trading rules, CEIP



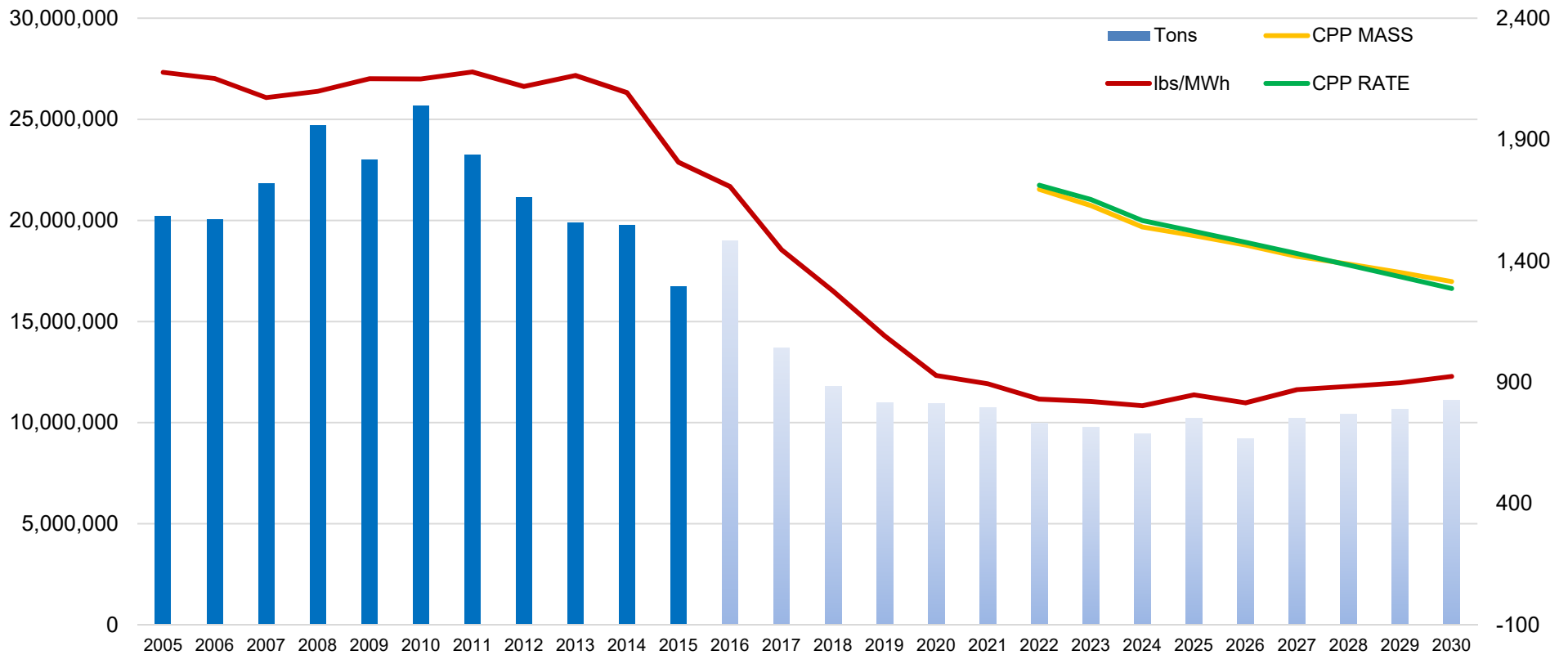
Clean Power Plan Litigation

- Stay remains in effect
 - Work in Iowa has been paused
- D.C. Circuit Court heard oral arguments September 27, 2016
- Key issues
 - Beyond the fence line
 - Duplication
 - Commandeering
 - Notice and achievability



MidAmerican Energy's CO₂ Emissions

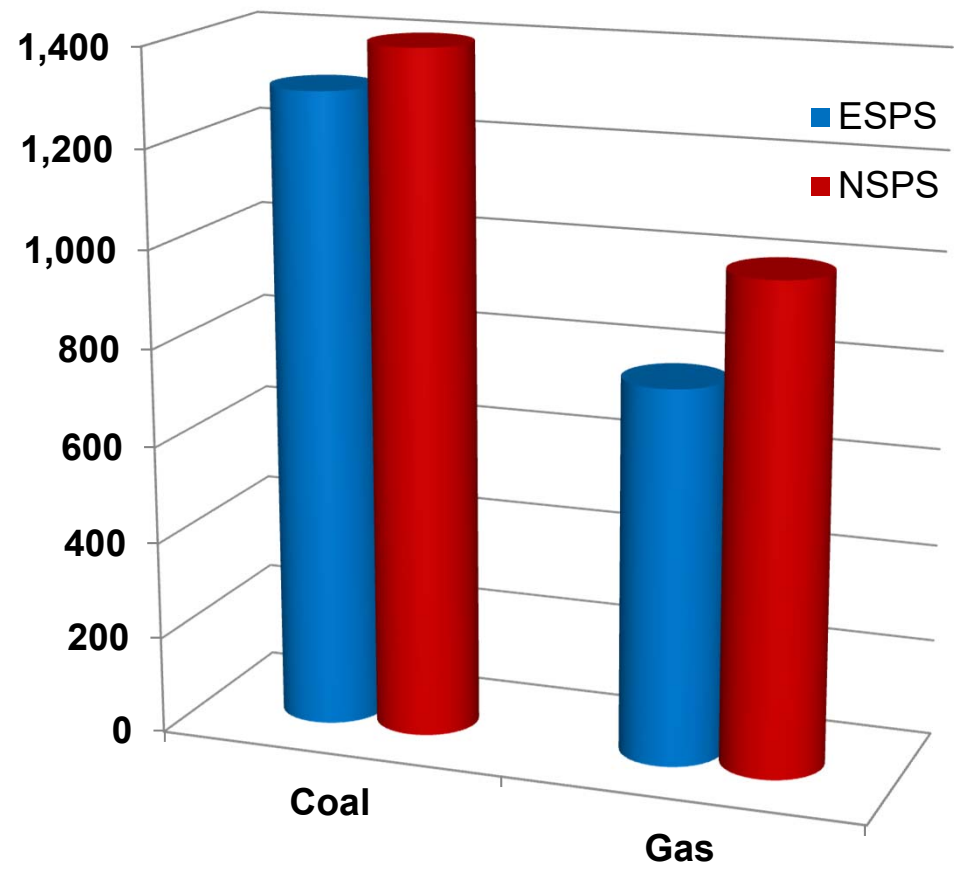
MidAmerican Energy Company CO₂ Emissions and Intensity





New Source Performance Standards

- Finalized in August 2015 – determined that CCS technology is “adequately demonstrated”
- Appeal pending in the U.S. Court of Appeals for the D.C. Circuit
 - Three-judge panel
 - Oral arguments in spring 2017?
- If challenges are successful, EPA cannot regulate new or existing sources





Global Climate Change Agreements

- 1992 – the U.N. Framework Convention on Climate Change was established to “stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”
 - The U.S. signed/ratified the UNFCCC
 - Consensus-based decisions
- 1995 – Parties to the UNFCCC begins meeting in Conferences of the Parties to assess progress
- 1997 – Kyoto Protocol adopted through this process, U.S. did not ratify
- 2009 – Copenhagen conference broke down but laid the foundation for Paris, setting target of 2°C
- Until Paris, failed to achieve meaningful progress in achieving objectives



What Made Paris Different?

- Significant advance work outside the formal meetings
 - U.S./China agreement
- Support from non-state actors
 - E.U. and U.S. business support
 - Environmental groups
 - Young people
- Permissive versus mandatory language in the agreement
 - Mandatory monitoring, reporting and verification
 - Non-binding commitments
 - Global “stocktakes” every five years
- Development of a bottom-up approach through the use of Intended Nationally Determined Contributions
 - Every country has some level of commitment



Nationally Determined Contributions

- Canada
 - 30% below 2005 levels by 2030 economywide
- U.S.
 - 26-28% below 2005 levels in 2025 economywide
- E.U. including the U.K. – Binding target of at least 40% of domestic GHG emissions by 2030 compared to 1990
- China
 - Peaking of CO₂ emissions around 2030 and making best efforts to peak early
 - Lower CO₂ emissions per units of GDP by 60-65% from 2005 level
 - Increase the share of non-fossil fuels in primary energy consumption to around 20%
- Entry into force of the Paris Agreement; achieved 4 years early



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PARIS AGREEMENT CROSSES THRESHOLD TO ENTER INTO FORCE

✓
OVER
55
PARTIES
JOINED

✓
OVER
55%
OF GLOBAL
EMISSIONS
REPRESENTED

Every 5 years countries
**STRENGTHEN
CLIMATE ACTIONS**

**5 KEY ELEMENTS OF THE
PARIS AGREEMENT**

CLIMATE FINANCE
to support developing
countries

ADAPTATION
is a central pillar
to help world's
most vulnerable

**LONG-TERM
GOAL** to achieve
net zero emissions

**ENHANCED
TRANSPARENCY** to
ensure commitments
are met

To learn more about which countries have
joined go to ParisAgreementTracker.org

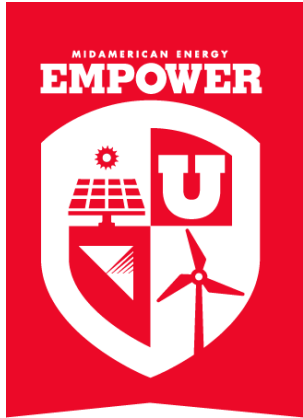
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Climate Regulations: What's Next?

- Clean Power Plan
 - Await D.C. Circuit Court decision, seek no appeal?
 - Complete rescission requires full notice-and-comment rulemaking
 - EPA has mandate to address greenhouse gas emissions
 - *Massachusetts v. EPA* and *AEP v. Connecticut*
- Paris Agreement
 - Other countries follow U.S. lead and exit agreement
 - Exit UNFCCC altogether? Comes with consequences
 - Participants kick U.S. out – and impose sanctions
 - Wait it out
 - Engage the U.S.



Questions?



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