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## Greenhouse Gas Regulatory Update

Asphalt Roofing Manufacturers Association Meeting  
Arlington, VA ♦ September 11, 2019

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# Federal GHG Regulatory Update



<https://www.nytimes.com/2019/08/29/climate/climate-rule-trump-reversing.html>

# Federal GHG Regulatory Update

- > June 1, 2017: Trump announces US will cease participation in 2015 Paris Agreement
- > August 24, 2018: National Highway Traffic and Safety Administration and EPA proposed the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks
- > June 19, 2019: EPA Repeals the Clean Power Plan (CPP) and Finalizes the Affordable Clean Energy (ACE) Rule
- > August 28, 2019: EPA Proposes Amendments to 2012 and 2016 NSPS for Oil and Gas Industry

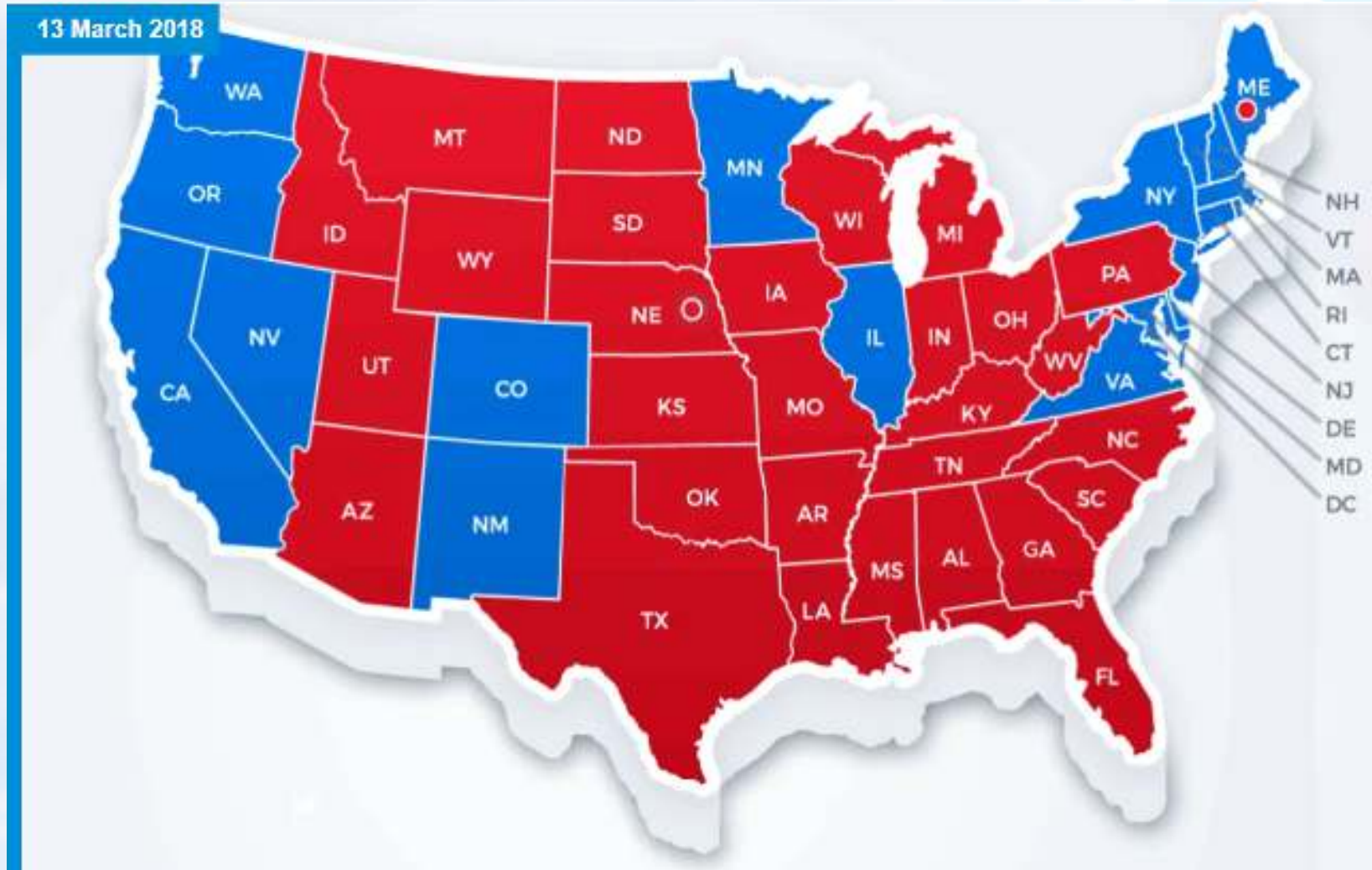
# Paris Agreement Withdrawal

- > Original US Commitment:
  - ❖ Achieve economy-wide target of reducing GHG emissions by 26-28% below 2005 baseline levels by 2025
  - ❖ Make best efforts to achieve 28% reduction
- > June 1, 2017 Announcement of US Withdrawal
  - ❖ President Trump states, “*will undermine (the U.S.) economy,*” and “*puts (the U.S.) at a permanent disadvantage*”
  - ❖ Earliest possible effective withdrawal date is four years after agreement came into effect in the US (11/4/2020)
- > Resulted in formation of the US Climate Alliance

# US Climate Alliance

- > Bipartisan coalition of 25 governors
- > Current Members
  - ❖ CA, CO, CT, DE, HI, IL, ME, MD, MA, MI, MN, MT, NV, NJ, NM, NY, NC, OR, PA, PR, RI, VT, VA, WA, WI
  - ❖ <https://www.usclimatealliance.org/>
- > Members commit to:
  - ❖ Implement policies that advance the goals of Paris Agreement (i.e., reduce GHG by at least 26-28% below 2005 by 2025)
  - ❖ Track and report progress to the global community in appropriate settings including when world convenes to take stock of the Paris Agreement, and
  - ❖ Accelerate new and existing policies to reduce carbon pollution and promote clean energy deployment at the state and federal level

# Recent GHG Activity at the State Level



<https://blogs.cfainstitute.org/investor/2018/03/13/red-states-blue-states-two-economies-one-nation/>

# California GHG Regulation for Stationary Sources



- > Assembly Bill (AB) 32: California Global Warming Solutions Act of 2006
- > CARB Responsibilities under AB32:
  - ❖ Develop **emissions inventory** (i.e., 1990 emission level & 2020 emission limit)
  - ❖ Develop and implement **mandatory reporting rules**
  - ❖ Adopt and implement **early action measures**
  - ❖ Reduce GHG via regulations, market mechanisms, and other actions
  - ❖ Ensure public notice and comment
  - ❖ Consider impacts on CA's economy, environment, and public health

# California Mandatory Reporting

- > Title 17, California Code of Regulation, Sections 95100 - 95158 - AB 32 GHG mandatory reporting rule passed in 2007, began reporting in 2009
  - ❖ Similar to EPA MRR (40 CFR 98) except:
    - ◆ Reporting threshold for stationary combustion is **10,000 (ARB)** vs. **25,000 (EPA)** metric tons CO<sub>2</sub>e for a calendar year
    - ◆ Applies to sources with aggregate max heat input of **12 (ARB)** vs. **30 (EPA)** MMBtu/hr or greater
    - ◆ **Third-party verification** must be acquired if reporter exceeded 25,000 MT CO<sub>2</sub>e or report has had compliance obligation under Cap-and-Trade Regulation during current 3-year compliance period



# California Cap-and-Trade

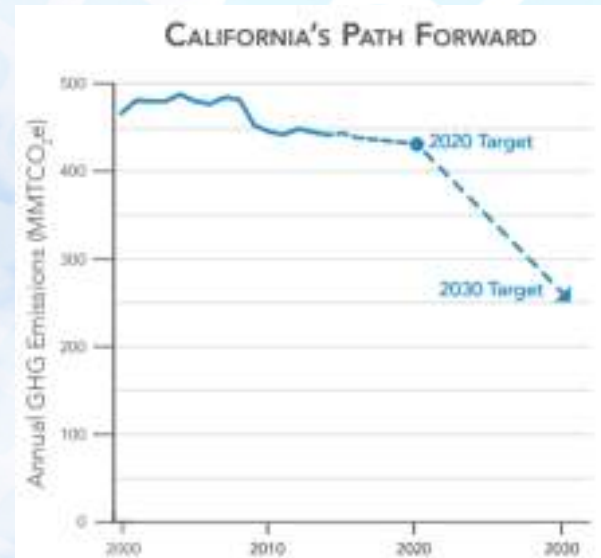
- > Title 17, CCR Sections 95800 - AB 32 Cap-and-Trade Rule became effective 1/1/2012
  - ❖ Applies to California Sources only (plus linked jurisdictions for trading - Ontario, Quebec)
  - ❖ Trigger Level = 25,000 MT CO<sub>2</sub>e
  - ❖ 3-Year Compliance Cycle (2018 - 2020)
  - ❖ GHG allowances/credits do not expire
  - ❖ Quarterly Public Auctions held by CARB
  - ❖ Declining cap achieved by:
    - ◆ Reducing industry assistance - direct/free allowances issued annually by industry sector according to specific formulas
    - ◆ Changing industry benchmarks
  - ❖ Covered sources comply by:
    - ◆ Reducing GHG emissions by energy efficiency projects, process improvements/controls, partial or permanent shutdown
    - ◆ Purchasing eligible California Carbon Offsets (CCOs) from qualified project developers (forestry, livestock, ODCs) and/or
    - ◆ Purchasing California Carbon Allowances (CCAs) via CARB auctions or private secondary markets

# California Update

- > September 2016 - Gov. Jerry Brown signs SB-32 which re-sets GHG reduction goal to 40% below 1990 levels by 2030
- > Companion Bill, AB 197:
  - ❖ Requires annual posting of GHG, criteria and air toxics for stationary/mobile sources
  - ❖ Provides direction to CARB related to strategies for GHG emissions reduction
- > CARB Plan outlined in updated AB32 Scoping Plan issued in November 2017:  
[https://ww3.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf)

# Potential California GHG Reduction Measures

- > Implement the post-2020 Cap-and-Trade Program
- > HFC Regulation at state level
- > Develop regulatory framework for implementation of carbon capture and sequestration projects
- > Continue R&D efforts to identify, evaluate and help deploy innovative GHG reductions strategies in industrial sector
- > Promote policies that prioritize low carbon production to delivery options
- > Promote onsite clean technology and efficiency upgrades through state grants



# Washington



- > 9/15/16: Washington Dept. of Ecology (WDE) finalized WAC 173-442: Washington Clean Air Rule (CAR)
- > Cap-and-reduce rule for GHG emissions
- > Rule was to take effect on 10/17/16 with standards beginning in 2017 for stationary sources, petroleum product producers and natural gas distributors
  - ❖ Stationary sources
  - ❖ Petroleum product producers
  - ❖ Natural gas distributors
- > Energy-intensive and trade-exposed (EITE) sources / petroleum product importers to join program in 2020 (asphalt roofing not on list of EITE)
- > Exempted CO<sub>2</sub> from industrial combustion of biomass in the form of fuel wood, wood waste, wood by-products, and wood residuals
- > Included substantial third-party verification

# Washington CAR Applicability Thresholds

Washington Compliance Threshold	
Compliance Threshold (MT CO <sub>2</sub> e/year)	First Compliance Period (Calendar Year)
100,000	2017-2019
95,000	2020-2022
90,000	2023-2025
85,000	2026-2028
80,000	2029-2031
75,000	2032-2034
70,000	2035 and beyond

Applicability based on a three calendar year rolling average beginning in 2012.

# Washington CAR Reduction Requirement (non-EITE)

- > Baseline established for each covered source
- > In every 3-year compliance period (starting with 2017-2019), covered GHG emissions must be reduced from that baseline
- > Non-EITE sources: 1.7% decrease annually (~5% every 3 years) from baseline GHG emission rates
  - ❖ From applicability date through 2035
  - ❖ Starting in 2036, remains constant at 2035 value

# Washington Update

## > Washington CAR:

- ❖ March 2018: Thurston County Superior Court ruled that parts of the CAR are invalid
- ❖ Compliance with the rule is currently suspended
- ❖ May 2018: WDE filed an appeal in the Washington Supreme Court
- ❖ March 2019: Washington Supreme Court heard arguments on whether WDE has authority to cap carbon pollution - decision pending

## > Other Recent Legislation:

- ❖ May 2019: SB 5116 Clean Energy Transformation Act requires electric utilities to transition to carbon-neutral electricity by 2030 and to 100% carbon-free by 2045
- ❖ May 2019: HB 1112 will implement transition away from HFCs in state starting 1/1/2020

# Oregon Update



- > Oregon attempted to pass HB 2020A The Clean Energy Jobs Bill which was introduced in January 2018
  - ❖ Bill would have had OR join the Western Climate Initiative trading system (with CA)
  - ❖ Program applicability threshold of 25,000 MT/year CO<sub>2</sub>e
  - ❖ Proposed Reduction Goals for OR:
    - ◆ Reduce GHG emissions by 45% below 1990 baseline by 2035
    - ◆ Reduce GHG emissions by 80% below 1990 baseline by 2050
  - ❖ EITE industries would receive free allowances for a number of years and be required to meet efficiency benchmarks
- > June 2019: OR State Senate kills the bill



# Nevada



- > June 2019: SB 254 Reducing Nevada's GHG Emissions signed - first step in state's climate legislation
- > Requires annual reports which will include:
  - ❖ Annual NV GHG emissions by economic sector (currently published every 4 years)
  - ❖ A 20-year project of NV GHG emissions
  - ❖ Identification of policies to achieve:
    - ◆ GHG emissions reduction of 28% over 2005 baseline by 2025
    - ◆ GHG emissions reduction of 45% over 2005 baseline by 2030
  - ❖ Qualitative assessment of whether policies identified support long-term reductions of GHG emissions to zero or near zero by 2050

# Colorado

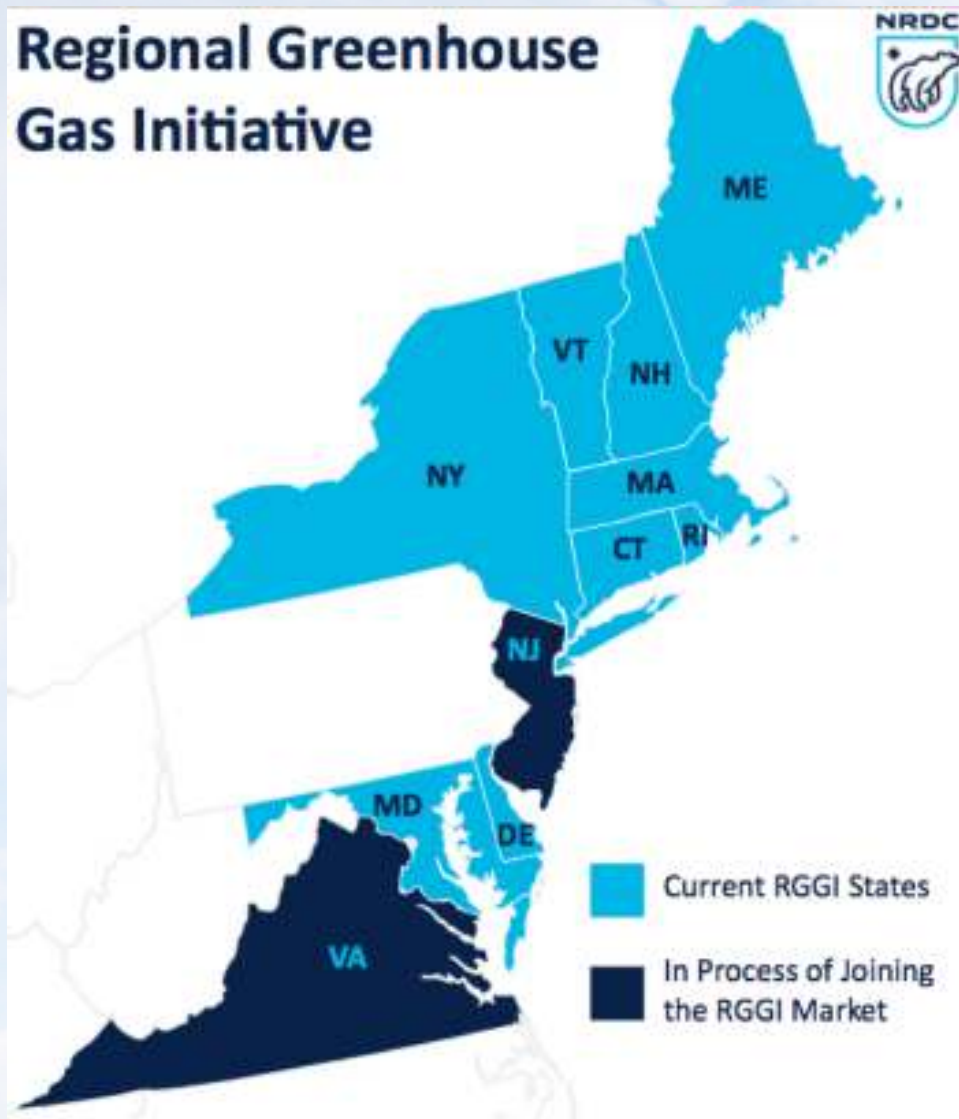


- > May 2019: Senate Bill 19-096 signed
  - ❖ Requires Air Quality Control Commission (AQCC) to develop and adopt GHG reporting rule by 6/1/2020
  - ❖ Requires AQCC to develop and adopt rules to meet the state's GHG emission reduction goals established under House Bill 19-1261
- > May 2019: House Bill 19-1261 signed
  - ❖ Requires AQCC to develop rules that increase renewable energy generation and eliminate statewide GHG emissions to achieve the following goals:
    - ◆ GHG emissions reduction of 26% over 2005 baseline by 2025
    - ◆ GHG emissions reduction of 50% over 2005 baseline by 2050
    - ◆ GHG emissions reduction of 90% over 2005 baseline by 2050

# Activity in Other Western/Midwestern States

- > **New Mexico:** In June 2019, announced the beginning of stakeholder outreach efforts to develop the state's first methane reduction regulations - focused on O&G. Also passed Energy Transition Act in March with commitment for zero-carbon electricity from public utilities by 2045.
- > **Illinois:** In August 2019: Governor Pritzker signed House Bill 3481 which repeals Illinois state law, "The Kyoto Protocol Act of 1998"
  - ❖ HB 3481 prohibited IL from taking steps to reduce GHG emissions unless the Kyoto Protocol Treaty was ratified by the US.
  - ❖ Opens door for IL to pass the Clean Energy Jobs Act which focused on state's power and transportation sectors.

# Northeastern/Mid-Atlantic States - Regional Greenhouse Gas Initiative (RGGI)



**June 17, 2019:** New Jersey adopted rules to rejoin RGGI as part of new Governor's goal to achieve 100% clean energy by 2050.

**April 19, 2019:** Virginia approved regulation to join RGGI.

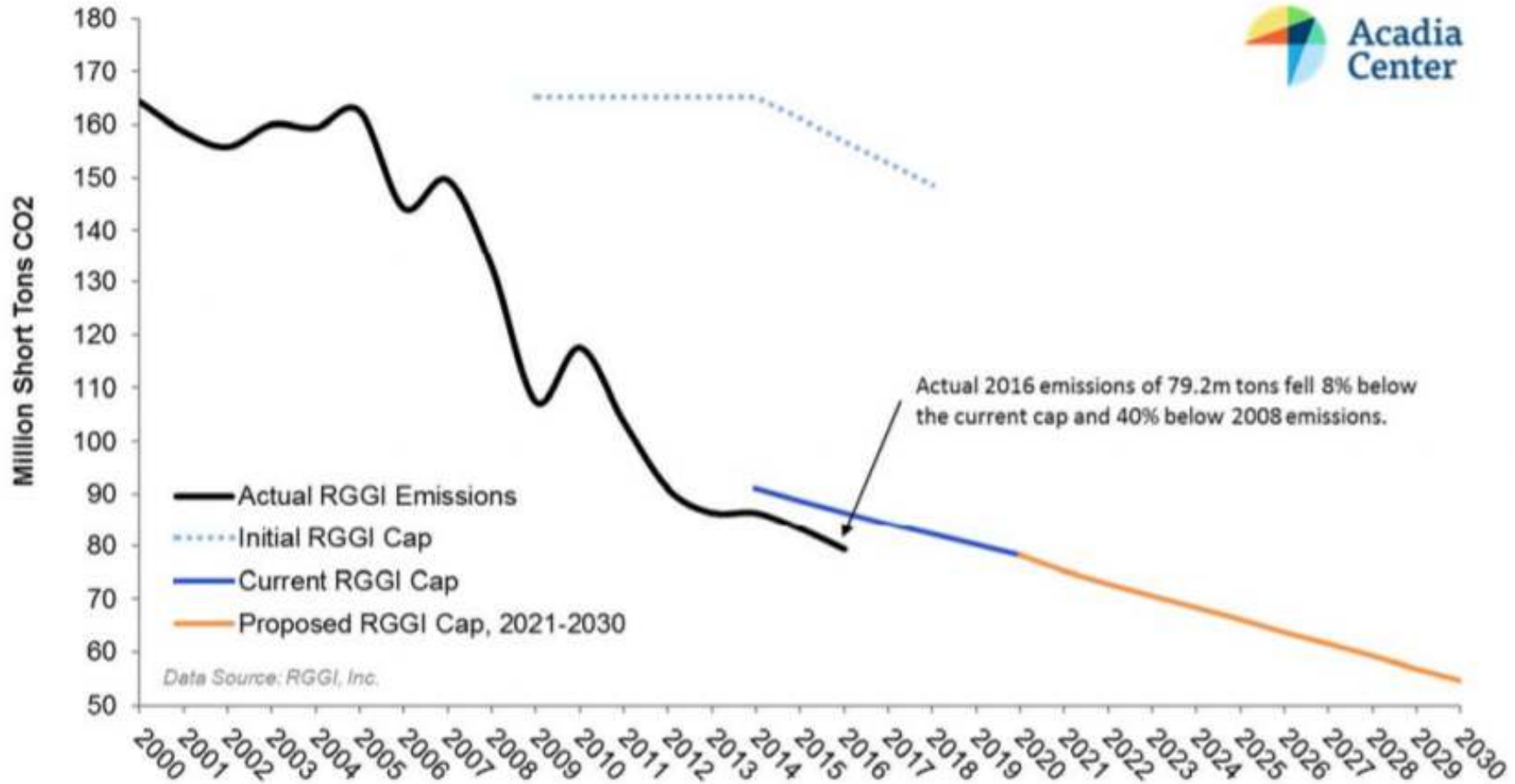
**May 2, 2019:** The state budget was finalized containing provisions introduced through state legislature which restricts VA's participation in RGGI at this time.

# Northeastern/Mid-Atlantic States - Regional Greenhouse Gas Initiative (RGGI)

- > RGGI is cooperative effort among the states of **Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont** to cap and reduce power sector CO<sub>2</sub> emissions.
- > Composed of individual CO<sub>2</sub> budget trading programs in each participating state through state-specific regulations.
- > Program limits emissions of CO<sub>2</sub> from electric power plants, issues CO<sub>2</sub> allowances and establishes participation in regional CO<sub>2</sub> allowance auctions.
- > In 2017, RGGI states set new targets to reduce GHG emissions by another 30% by 2030.

# RGGI Caps and Actual Emissions

Figure 1: RGGI Caps and Actual Emissions



[http://acadiacenter.org/wp-content/uploads/2017/09/Acadia-Center\\_RGGI-Report\\_Outpacing-the-Nation.pdf](http://acadiacenter.org/wp-content/uploads/2017/09/Acadia-Center_RGGI-Report_Outpacing-the-Nation.pdf)

# Pennsylvania



- > November 2018 - Environmentalists submitted a rulemaking petition to the Pennsylvania Environmental Quality Board (EQB) to establish a GHG cap-and-trade program in the state
- > Petition's proposed program:
  - ❖ Sources subject to program would include:
    - ◆ Sources required to report under EPA's MRR (direct emissions)
    - ◆ Distributors of fossil fuels in PA - would have to surrender allowances for emissions released due to combustion of fuels distributed in the state
    - ◆ Entities that deliver electricity to PA generated with fossil fuels at facilities outside of the state that are not subject to an equivalent program - would have to surrender allowances for emissions resulting from generation of that electricity
  - ❖ Would cap GHG emissions from certain sources with cap declining each year by 3% of baseline 2016 levels
  - ❖ DEP would distribute allowances equal to the cap
- > PA's Department of Environmental Protection (DEP) is doing legal analysis of petition and has initiated economic analysis

# Activity in Other Northeastern/Mid-Atlantic States

- > **Maine:** In April 2019, Governor introduced bipartisan legislation to create Maine Climate Council to meet state's GHG reduction goals. Preliminary talk of proposing cap-and-trade program for all sources, not just EGUs.
- > **New York:** In May 2019, Governor Cuomo signed the Climate Leadership and Community Protection Act.
  - ❖ Commits to 100 percent carbon-free electricity by 2040 and economy-wide, net-zero carbon emissions by 2050.
  - ❖ In addition to the power sector (RGGI), New York is looking to reduce GHG emissions from O&G (methane), transportation and HFCs use.



# Activity in Other Northeastern/Mid-Atlantic States

- > **Maryland:** Maryland Dept. of the Environment (MDE) currently working with stakeholder group to develop GHG regulation. At present, manufacturing categorically exempt - rulemaking focused on O&G and transportation sectors.
- > **Washington, DC:** In August 2018, published DC Clean Energy Plan.
  - ❖ In July 2019, DC Department of Energy and Environment (DOEE) proposed plan to phase out fossil fuels from the District's Energy supply.
  - ❖ Limits carbon intensity threshold for fuel burned in DC for electricity or heating.

# Investor Demand for GHG Emissions Reporting

- > Growing investor demand for enhanced Environmental, Social and Governance (ESG) disclosure and uniform reporting standards
- > In November 2018, Edison Electric Institute and American Gas Association (trade associations for investor-owned utilities) issued best practices for ESG reporting (<https://www.aga.org/news/news-releases/eei-and-aga-update-esgsustainability-reporting-template-to-include-natural-gas-metrics/>)
- > In July 2019, a group of European investors called on cement companies to commit to achieving net zero emissions by no later than 2050 (<https://www.iigcc.org/news/investors-call-on-cement-companies-to-address-business-critical-contribution-to-climate-change/>)

# Investor Demand for GHG Emissions Reporting

- > In November 2018, US Chamber of Commerce issued report on Sustainability Reporting (<https://www.uschamberfoundation.org/blog/post/new-report-examines-past-present-future-sustainability-reporting>)
- > In July 2019, US House Committee on Financial Services, Subcommittee on Investor Protection, Entrepreneurship, and Capital Markets held the first ever Congressional hearing on ESG issues. Impetus for hearing:
  - ❖ Addressing investor demand for ESG information
  - ❖ Bringing the US regulatory regime in line with its global counterparts
  - ❖ Recognizing correlation between strong ESG performance and strong company performance

# Key Takeaways

- > Lack of interest in regulating GHGs at federal level has resulted in state-level legislative action in blue states
- > New legislation predominantly impacts
  - ❖ Power Sector (Clean Energy Standards)
  - ❖ Transportation (Fuel Standards)
  - ❖ Oil and Gas Sector (Methane Standards)
  - ❖ HFCs
- > Asphalt Roofing Plants that are large enough to report under EPA's MRR may be at risk of future regulation
- > Growing investor demand for ESG reporting causing certain companies to assess voluntary corporate carbon disclosure and mitigation



**Questions?**

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