

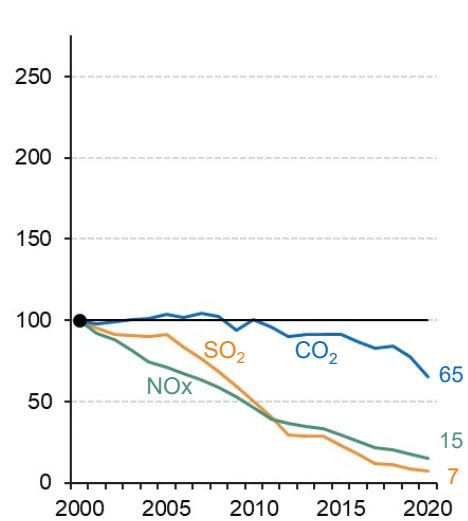
U.S. GHG Reduction Goals – Regulate via CES vs. EPA-CAA

June 8, 2021

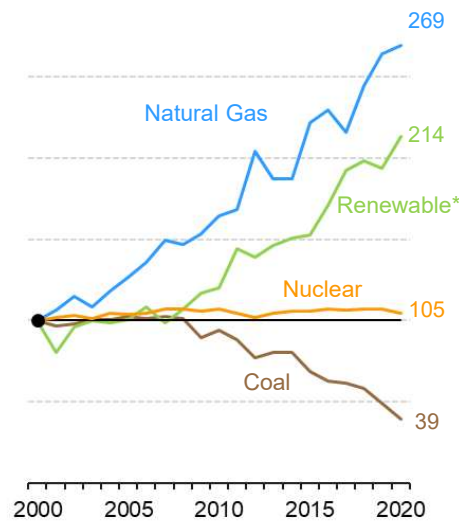
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Significant Progress to Date

Electric Sector Emissions
(Indexed; 2000 = 100)



Generation Fuel Mix
(Indexed; 2000 = 100)



Macroeconomic Indicators
(Indexed; 2000 = 100)



*Includes hydroelectric, wind, solar, biomass, geothermal, and other renewable sources.

**GDP in chained 2012 dollars.

The electric power sector has made significant progress in terms of reducing its NO_x and SO₂ emissions. From 2000 through 2020, NO_x and SO₂ emissions decreased 85 and 93 percent, respectively. From 2000 to 2020, CO₂ emissions decreased 35 percent while GDP grew 40 percent. Natural gas and renewable generation have increased significantly.

Nationally Determined Contribution

White House Goals set April 22, 2021

- 50-52 percent reduction from 2005 levels in economy-wide net greenhouse gas pollution in 2030
- 100 percent carbon pollution-free electricity by 2035
- The Administration has also proposed a national Clean Energy Standard (CES) but details are limited



Sampling of Company Commitments

Utility	Baseline	2025	2030	2035	2040	2045	2050
Xcel Energy	2005		- 80%				100% carbon free
WEC Energy Group	2005		- 70%				Carbon neutral
NiSource	2005		- 90%				
Minnesota Power	2005			- 80%			100% carbon free
Idaho Power	2005					100% clean energy	
DTE Energy	2005		- 50%				Net-zero
Madison Gas and Electric	2005		- 40%				Net-zero
Duke Energy	2005		- 50%				Net-zero
NextEra	2005	- 67% (rate)					
Consumers Energy	N/A				Net-zero		
AEP	2000		- 80%				Net-zero
Southern Company	2007		- 50%				Net-zero

CES 101

- **Target:** Mandatory national goal or standard to transition the electric sector toward 100% clean energy
- **Compliance Mechanism:** Retail electric suppliers must procure enough clean energy credits to cover their clean energy target each year. Credits are generated by clean energy sources (zero emitting or benchmark performance)
- **Enforcement:** Enforcement mechanisms to ensure the standard is met; alternative compliance payments could limit costs
- **Regulated Entity:** The requirement could apply to retail electric suppliers or generators



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