

Charting an Ambitious U.S. NDC

Leon Clarke

March 9, 2021

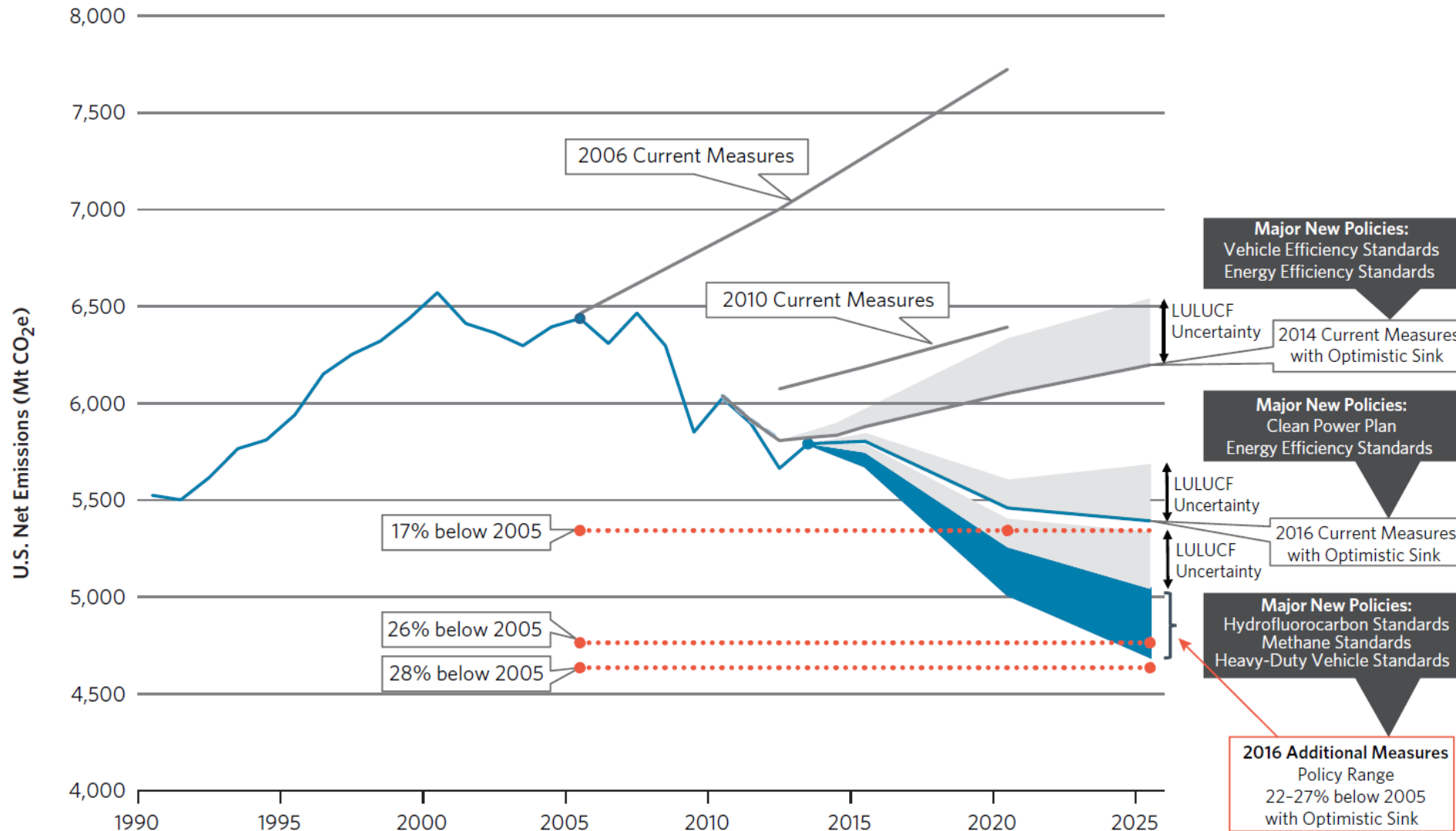


The Paris Agreement (2015)



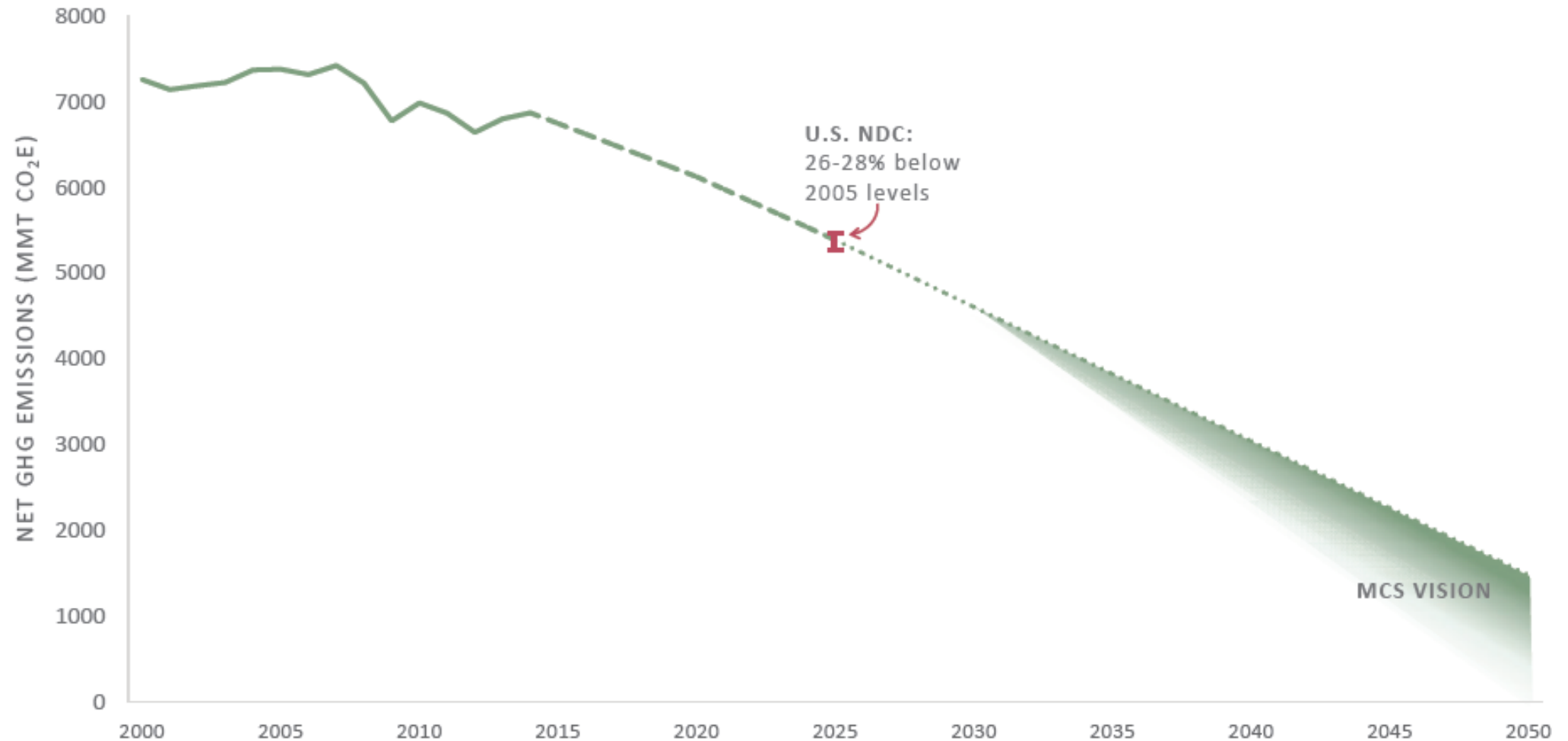


The Second U.S. Biennial Report (2016)



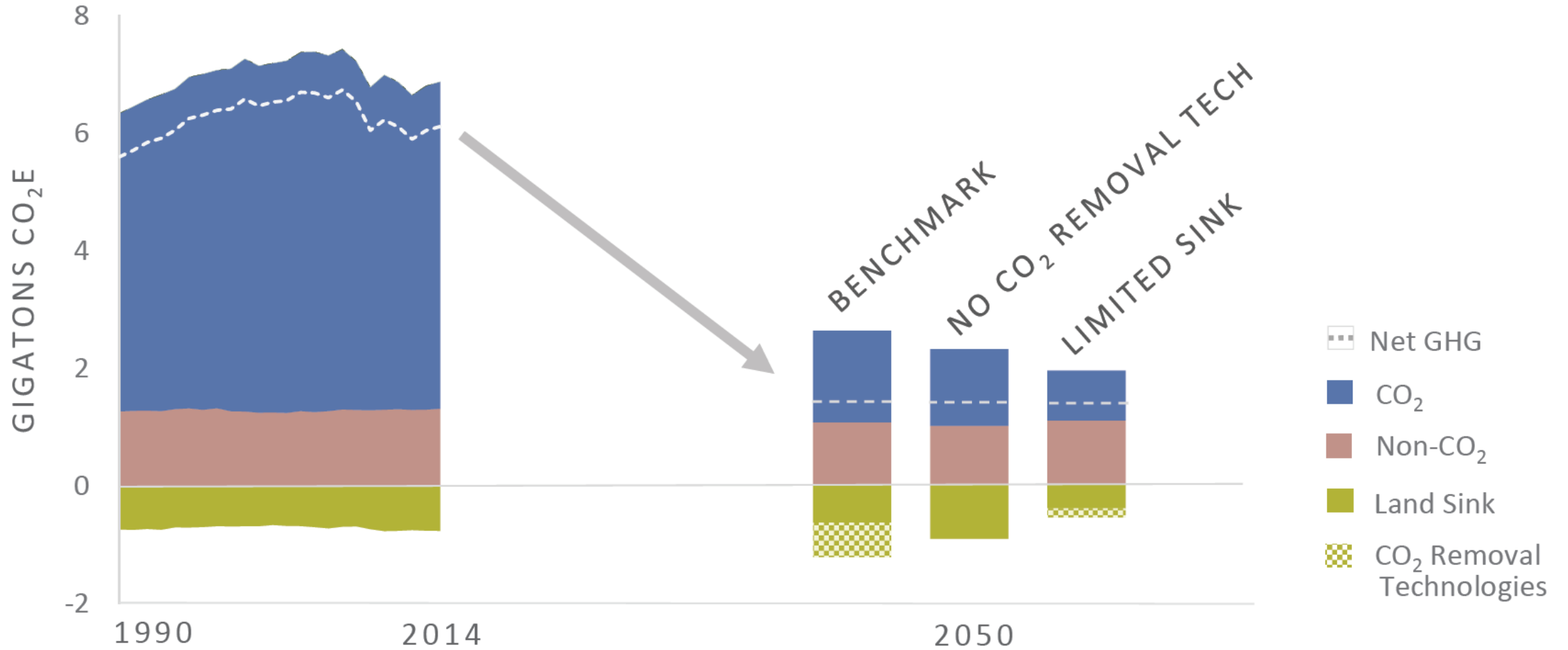


The U.S. Mid-Century Strategy (2016)





The U.S. Mid-Century Strategy (2016)





SCHOOL OF
PUBLIC POLICY

CENTER FOR GLOBAL
SUSTAINABILITY

U.S. DEPARTMENT of STATE

POLICY ISSUES COUNTRIES & AREAS ABOUT BUREAUS & OFFICES

Press Business Current Employees Job Seekers Students Travelers

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On the U.S. Withdrawal from the Paris Agreement

PRESS STATEMENT

MICHAEL R. POMPEO, SECRETARY OF STATE

NOVEMBER 4, 2019

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Today the United States began the process to withdraw from the Paris Agreement. Per the terms of the Agreement, the United States submitted formal notification of its withdrawal to the United Nations. The withdrawal will take effect one year from delivery of the notification.

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As noted in [his June 1, 2017 remarks](#), President Trump made the decision to withdraw from the Paris Agreement because of the unfair economic burden imposed on American workers, businesses, and taxpayers by U.S. pledges made under the Agreement. The United States has reduced all types of emissions, even as we grow our economy and ensure our citizens' access to affordable energy. Our results speak for themselves: U.S. emissions of criteria air pollutants that impact human health and the environment declined by 74% between 1970 and 2018. U.S. net greenhouse gas emissions dropped 13% from 2005-2017, even as our economy grew over 19 percent.



The U.S. Rejoins the Paris Agreement

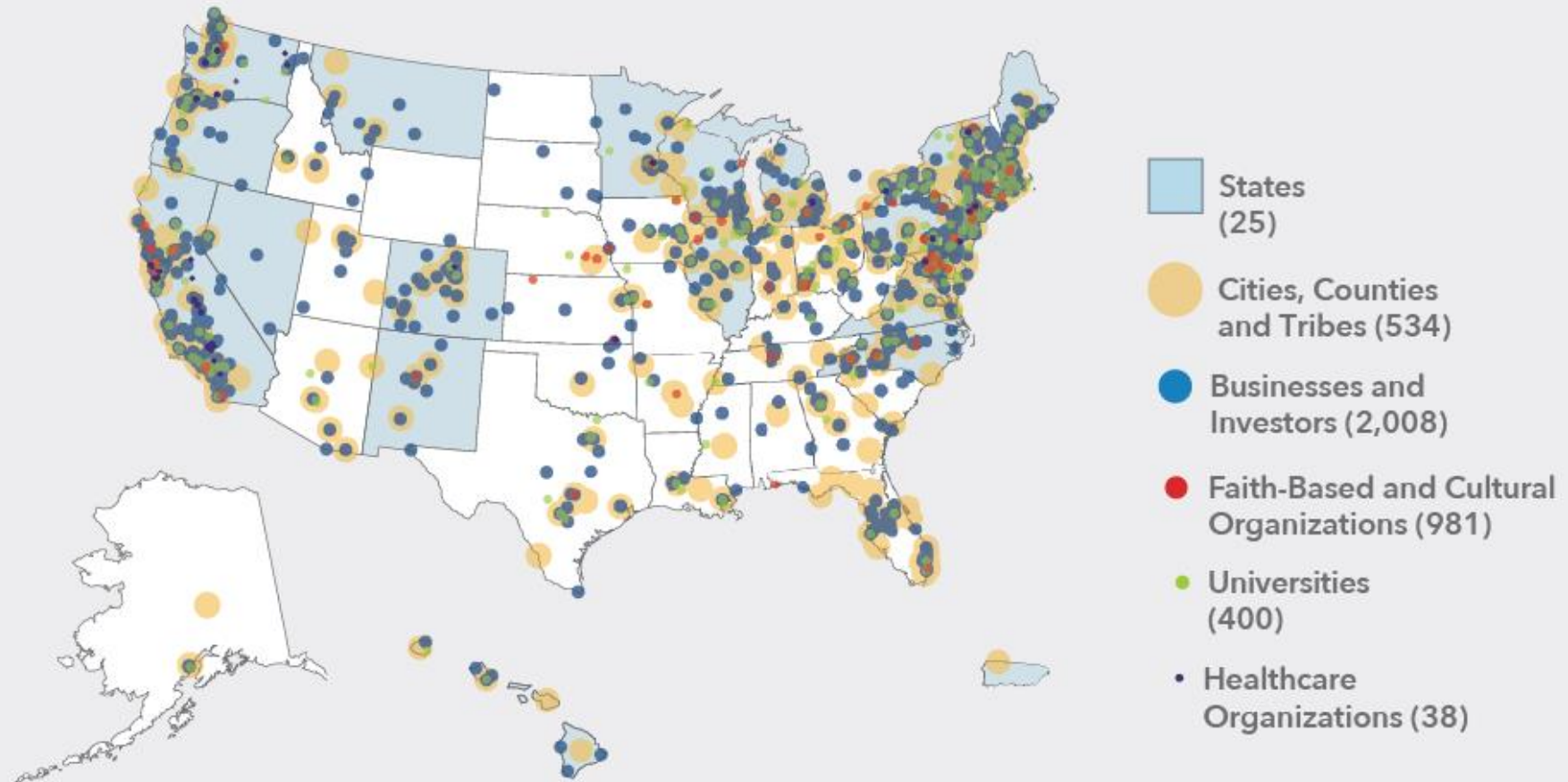
ACCEPTANCE ON BEHALF OF THE UNITED STATES OF AMERICA

I, Joseph R. Biden Jr., President of the United States of America, having seen and considered the Paris Agreement, done at Paris on December 12, 2015, do hereby accept the said Agreement and every article and clause thereof on behalf of the United States of America.

Done at Washington this 20th day of January, 2021.

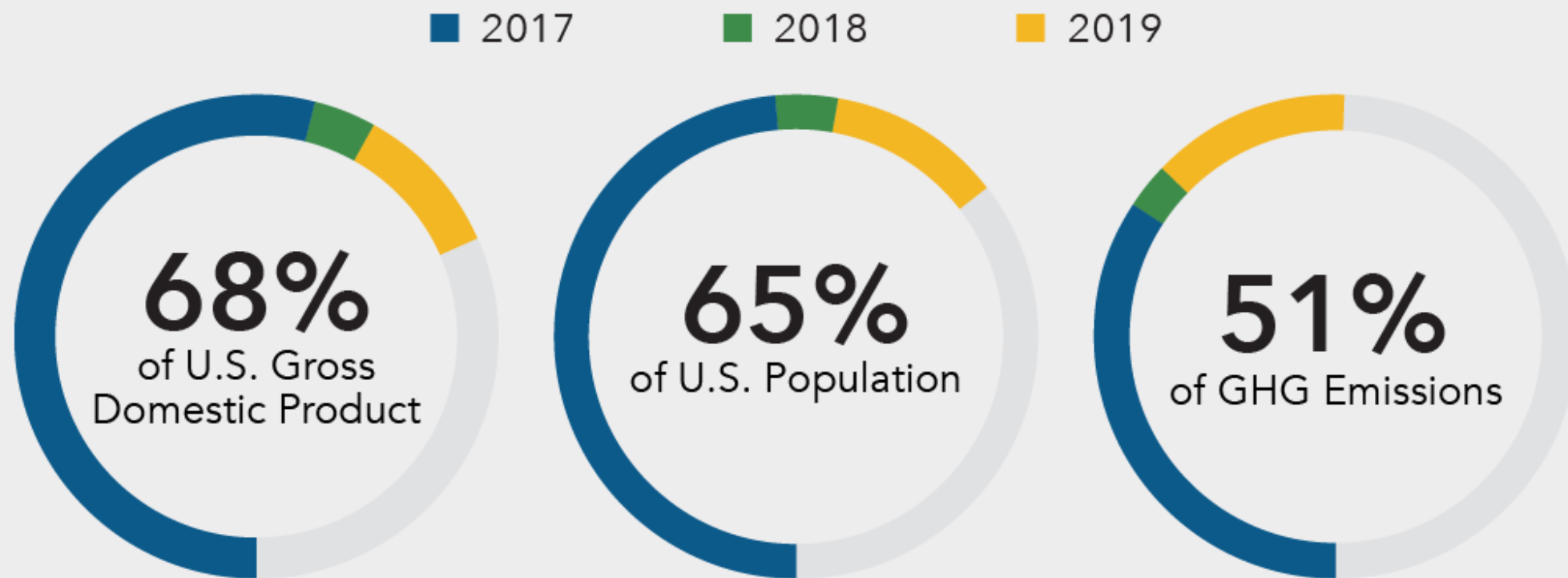
JOSEPH R. BIDEN JR.

2019 U.S. coalition of climate actors



AMERICA'S PLEDGE

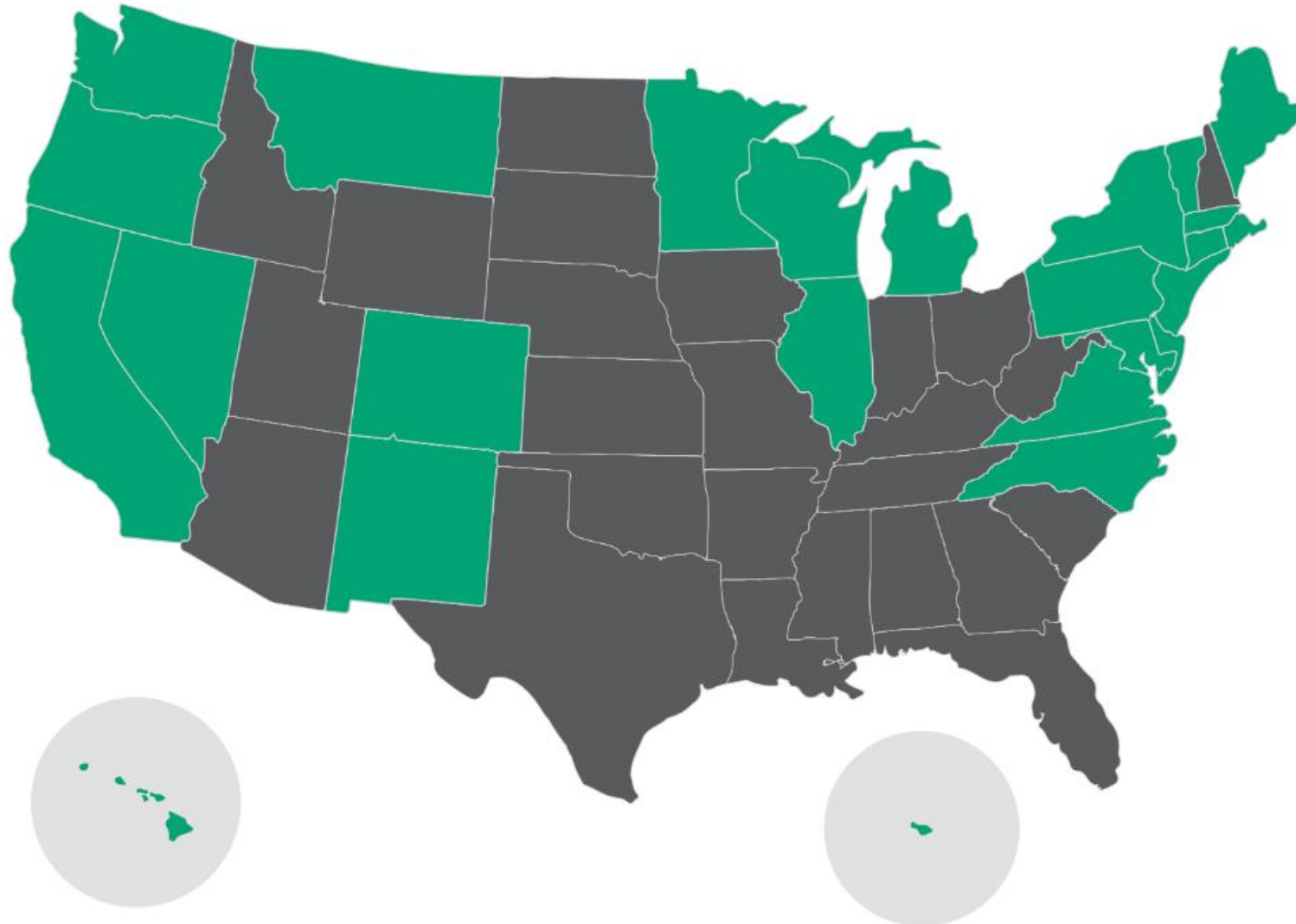
U.S. coalitions committed to climate action to meet the Paris Agreement goals now represent nearly 70% of U.S. GDP, nearly two-thirds of the U.S. population, and over half of U.S. greenhouse gas emissions.



AMERICA'S PLEDGE

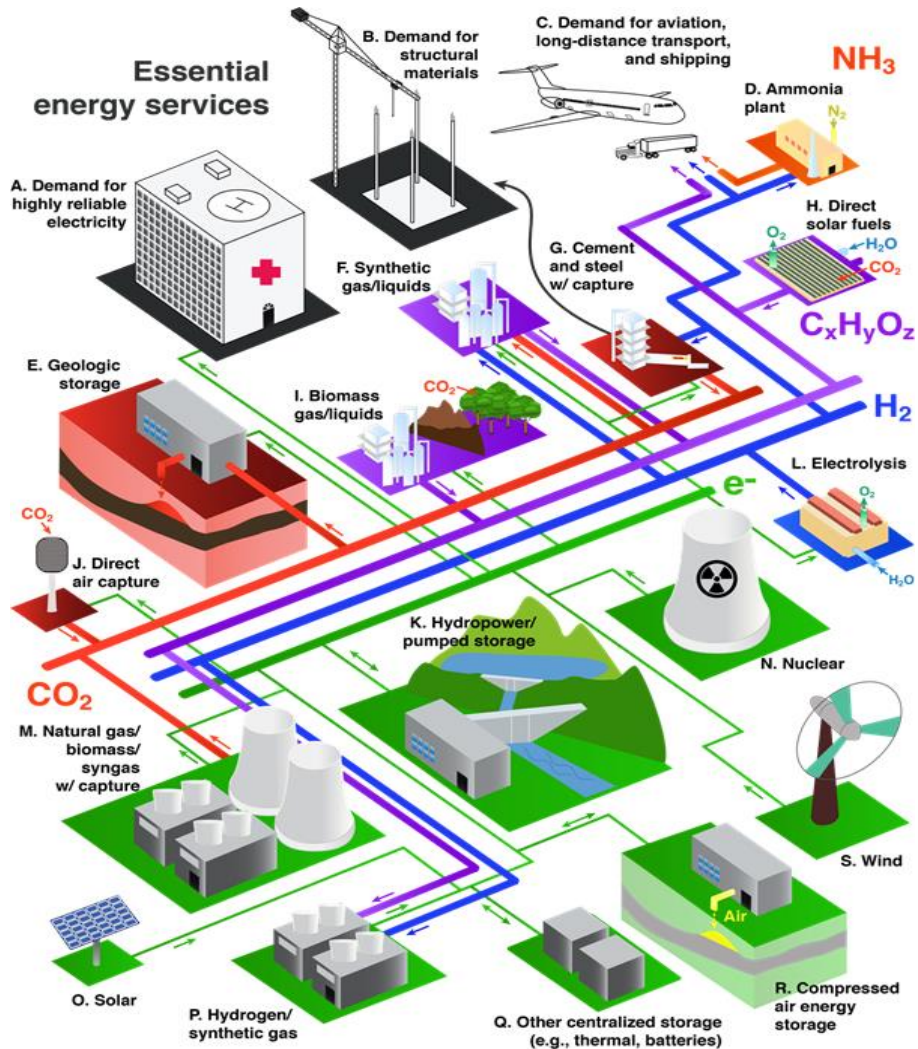


United States Climate Alliance States



The United States Climate Alliance is a bipartisan coalition of 24 governors committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement.

Net-zero energy systems are different than those of today



1. zero- or negative carbon electricity systems;
2. Widespread electrification of end uses;
3. targeted use of alternative fuels such as hydrogen, bioenergy, and ammonia in hard-to-decarbonise sectors;
4. substantially lower use of fossil fuels than today
5. energy conservation and efficiency measures;
6. greater integration across energy systems;
7. CDR to offset emissions from hard-to-decarbonise sectors.

ACCELERATING AMERICA'S PLEDGE

GOING ALL-IN TO BUILD A
PROSPEROUS, LOW-CARBON
ECONOMY FOR THE UNITED STATES

Working Paper

CHARTING AN AMBITIOUS U.S. NDC OF 51% REDUCTIONS BY 2030

Authors: Nathan Hultman,¹ Leon Clarke,¹ Haewon McJeon,¹ Ryna Cui,¹ Pete Hansel,² Emily McGlynn,³ Kowan O'Keefe,¹ John O'Neill, Celeste Wanner,² Alicia Zhao¹



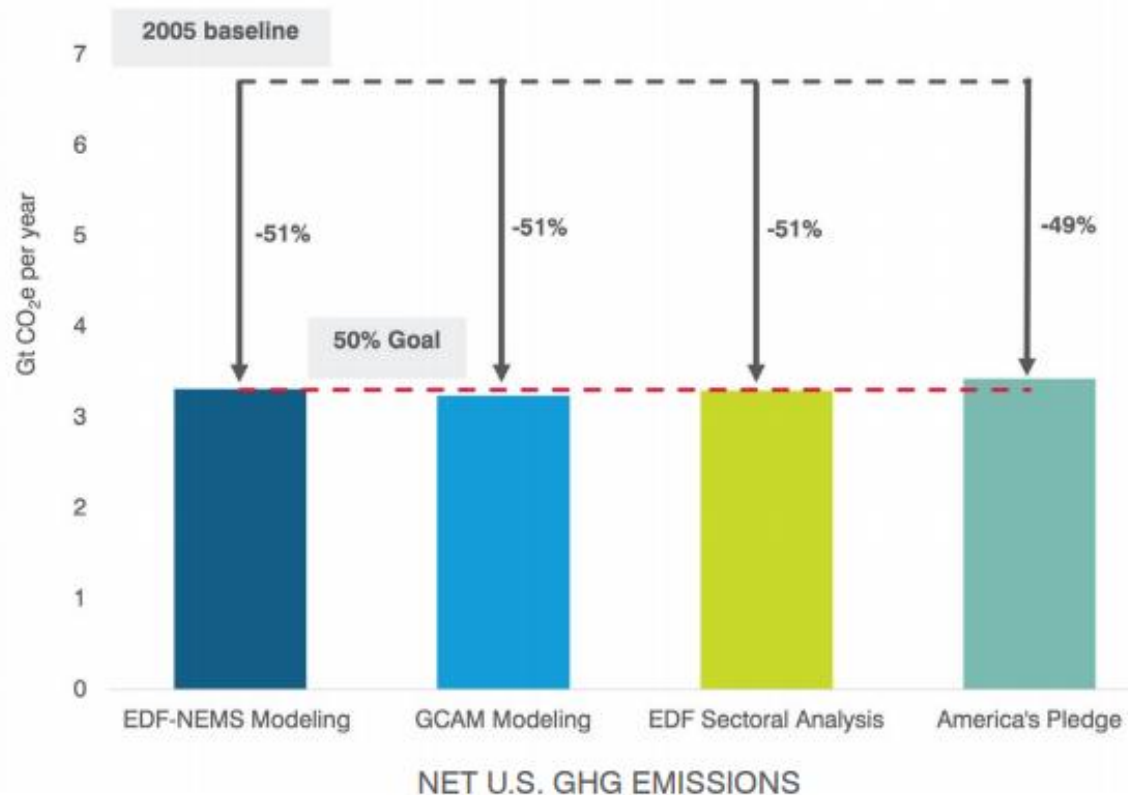
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A 1.5 CELSIUS PATHWAY TO CLIMATE LEADERSHIP FOR THE UNITED STATES

BY ROBBIE ORVIS ● FEBRUARY 2021

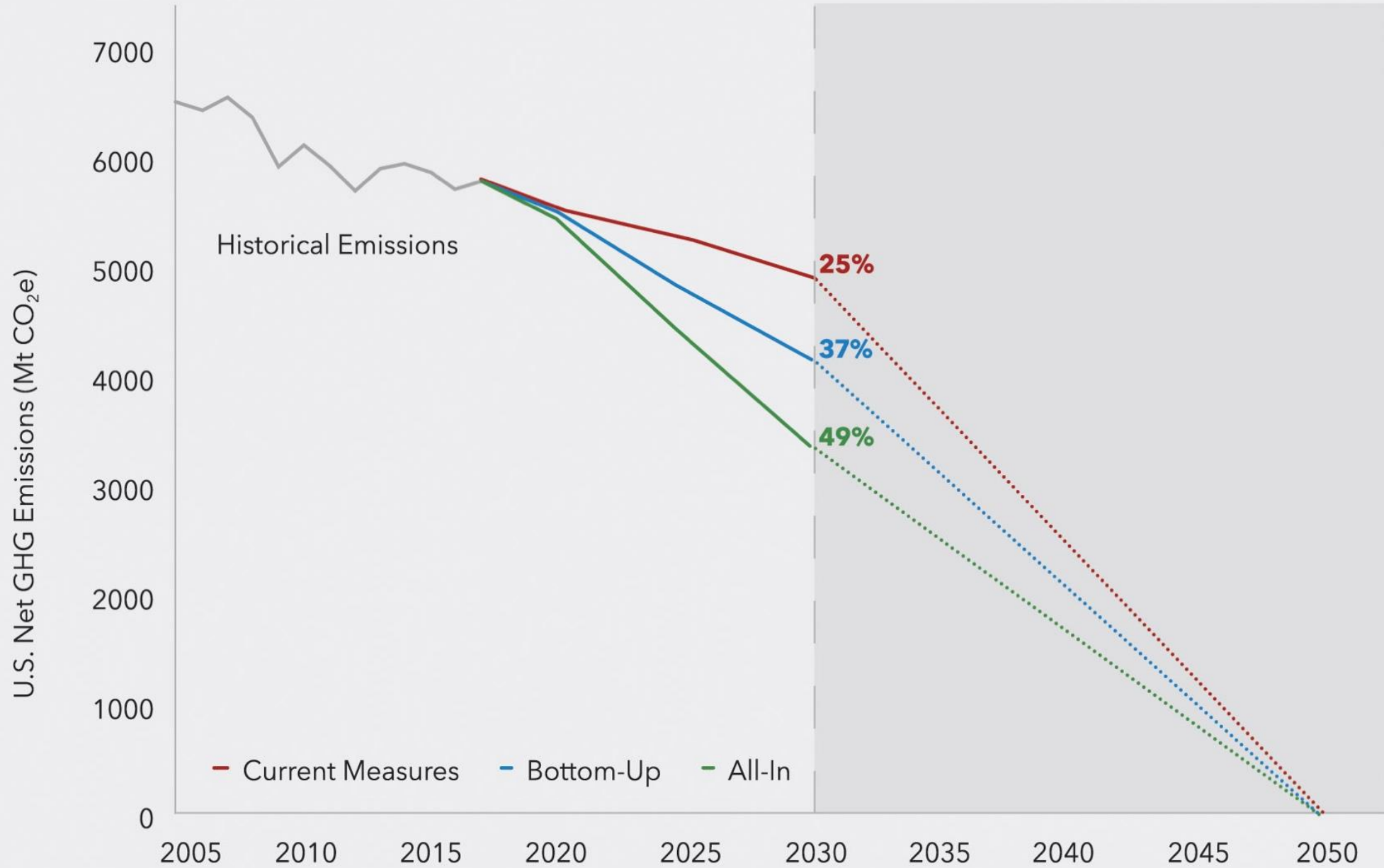


A range of analyses demonstrate that the United States can cut GHG emissions at least 50% below 2005 level by 2030



America's Pledge Analysis to 2030

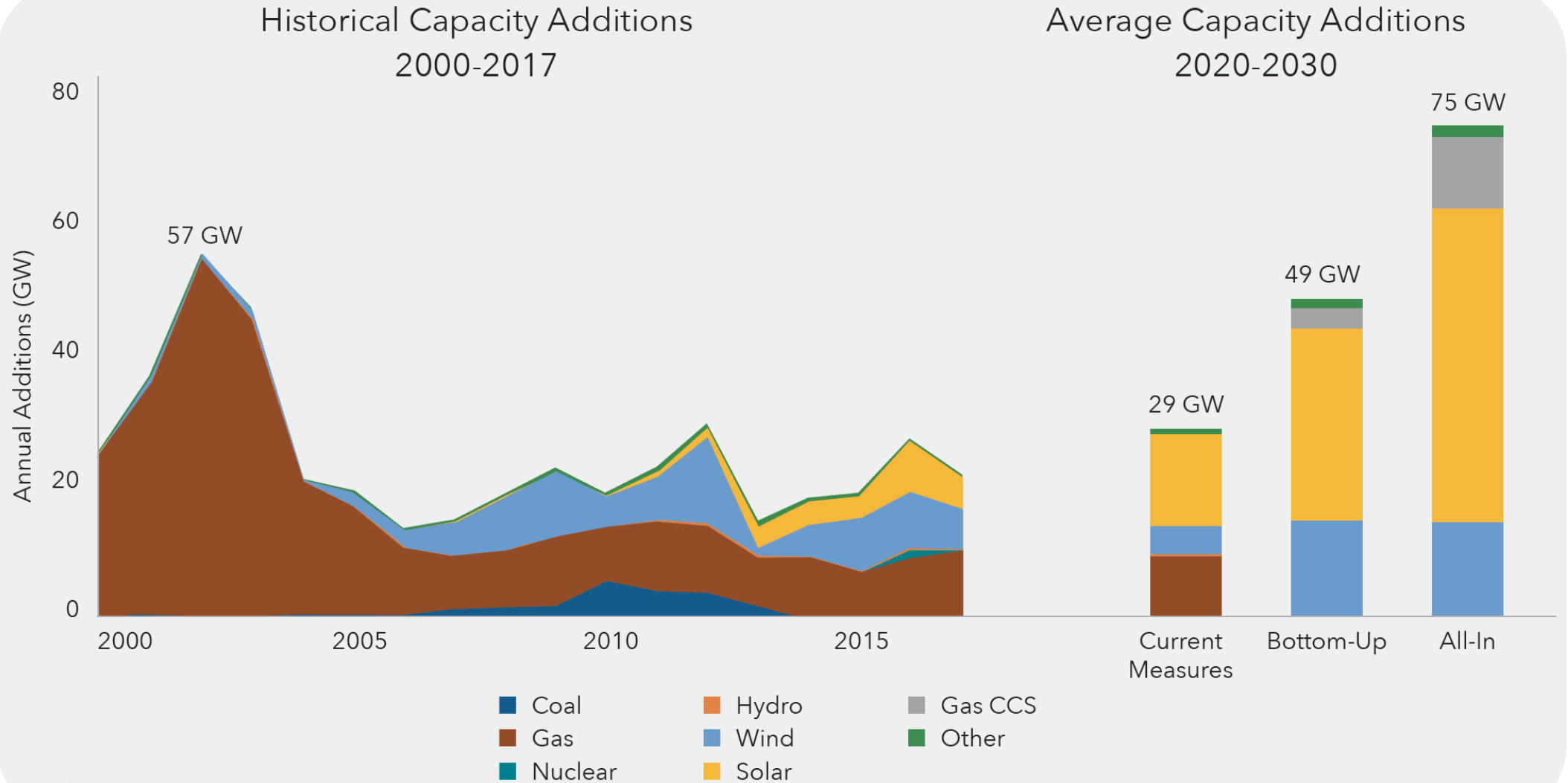
Linear Pathways to Net Zero



The Bottom-Up Scenario: 2030 Strategy Platform

Accelerate toward 100% Clean Electricity	Decarbonize Buildings, Transportation & Industry	Enhance Ecosystem Carbon Storage
<p>Leading States:</p> <ul style="list-style-type: none"> • 60% renewable electricity • No more coal plants • Peak and then reduce reliance on gas • Reduced methane emissions <p>Fast Follower States incorporate more modest renewable standard and slow gas builds</p> <p>Market trends and advocacy constrain coal and gas across the country, including in remaining states</p>	<p>Leading States:</p> <ul style="list-style-type: none"> • New buildings 100% electric • Appliances replaced by electric at end-of-life • 2% EE improvement annually • EVs = 2/3 new car sales • ICE performance increased 4% annually • Energy management, electrification, CCUS in industry • HFCs phased down per Kigali Amendment <p>Fast Follower States go roughly half as far.</p> <p>Remaining states make little progress.</p>	<p>Leading States incentivize low-cost natural climate solutions, such as:</p> <ul style="list-style-type: none"> • Natural forest management • Optimal nutrient application • Use of cover crops <p>Land carbon sink improved 11% compared to today</p>

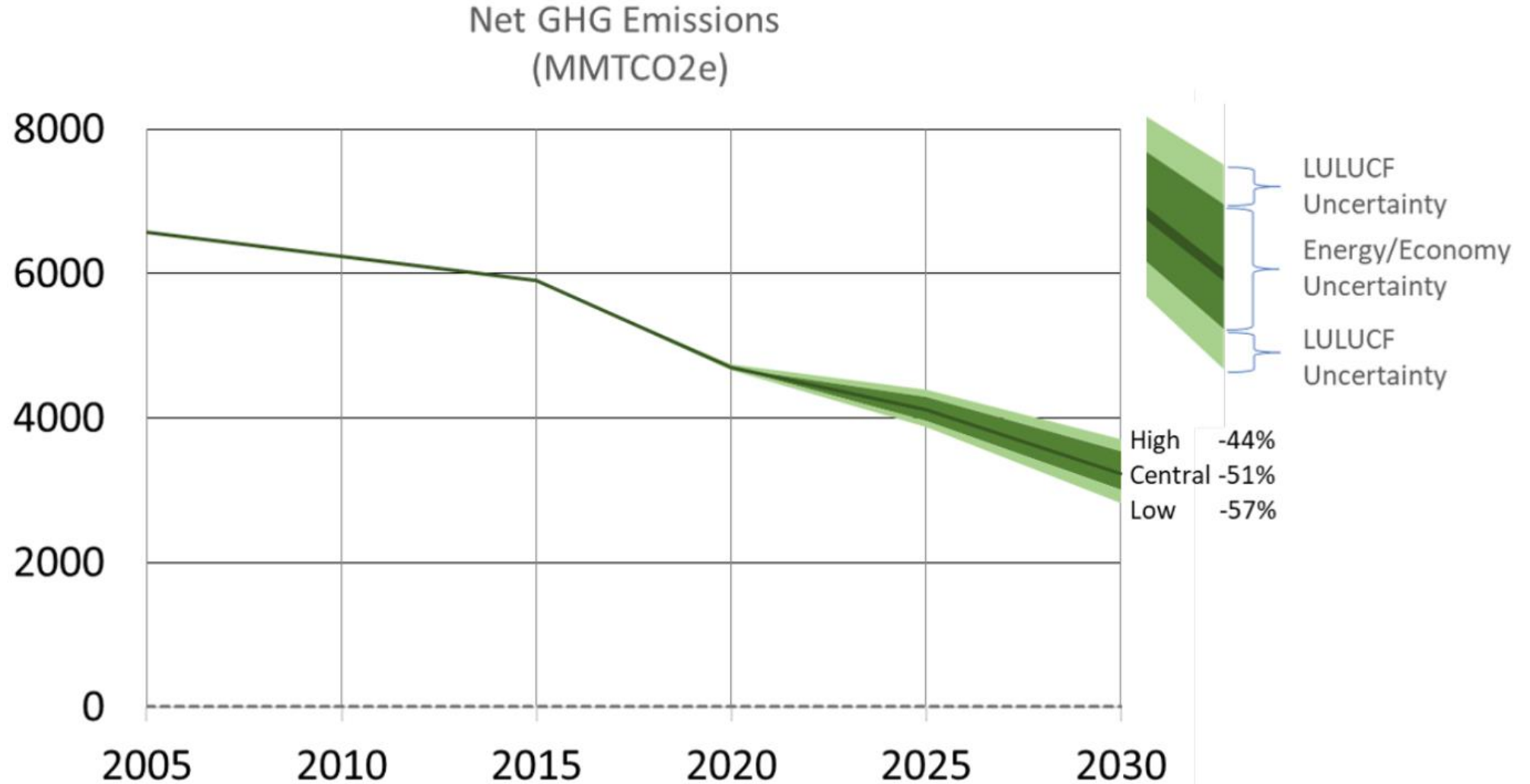
Clean Energy Buildout through 2030





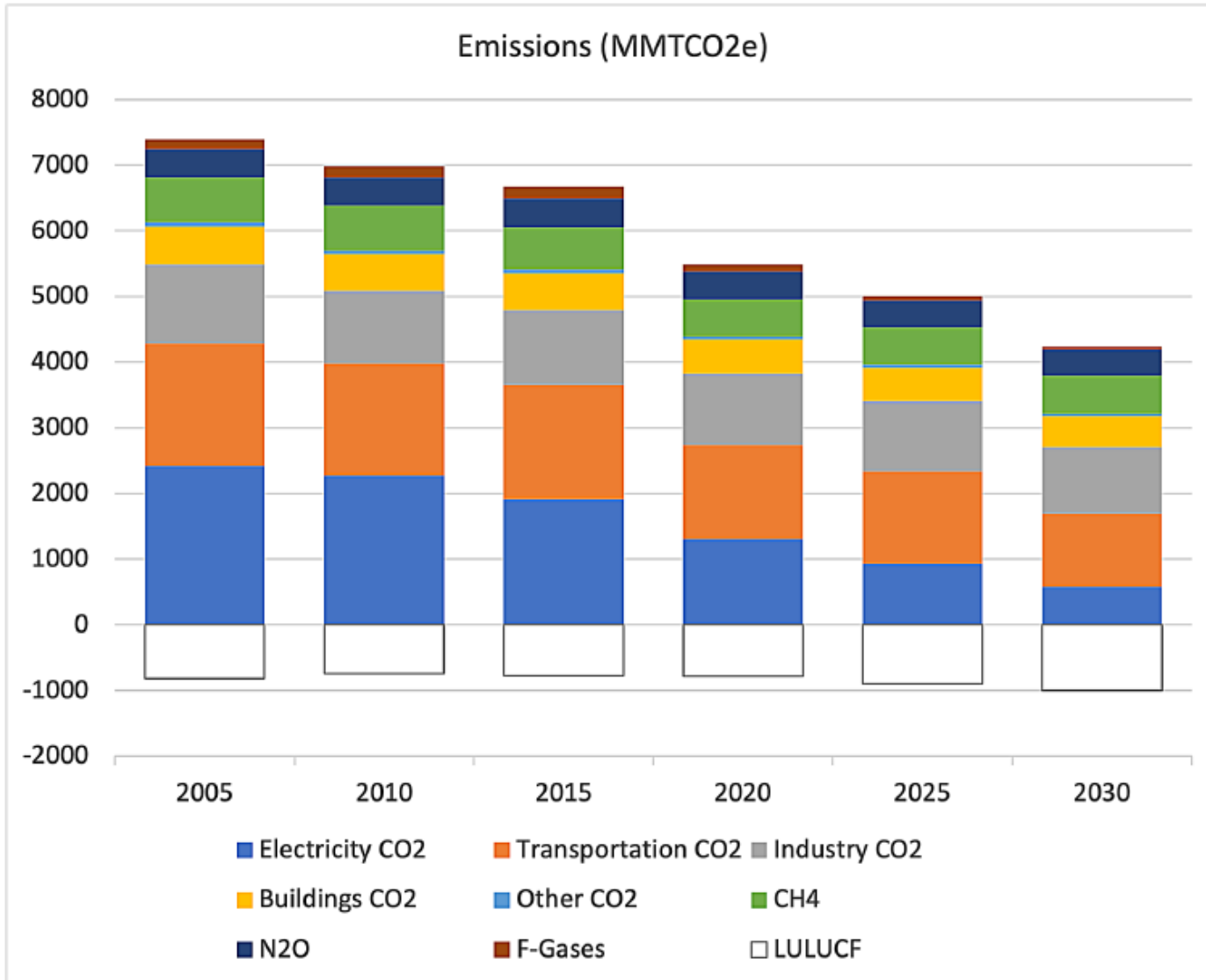
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Electricity Sector Actions

76% below 2005 and 28% of overall 51% reduction.

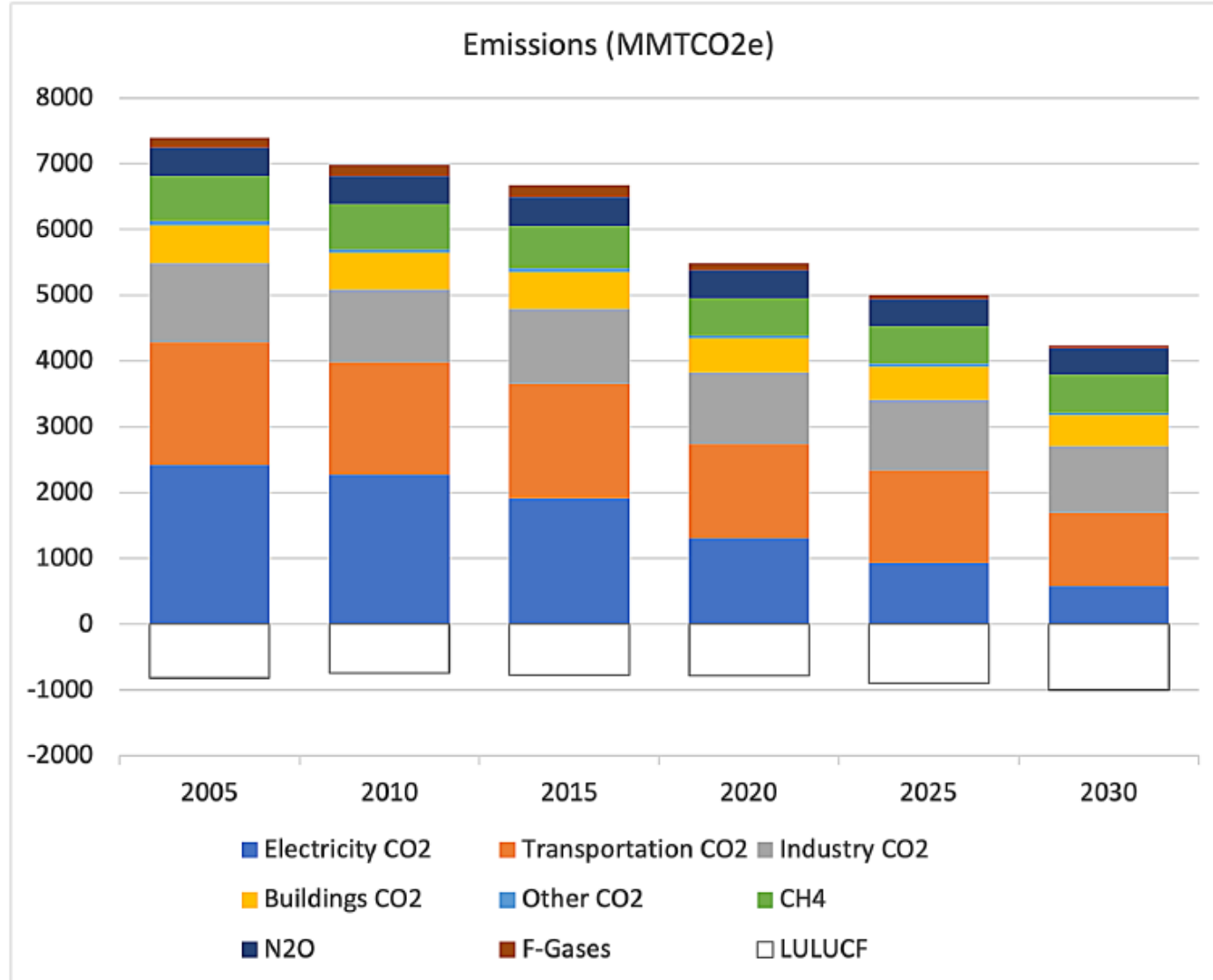


- Renewable Energy Incentives
- Standards on existing coal
- Standards on existing gas
- Standards on new gas
- Incentives for Carbon Capture and Sequestration
- Nuclear Retention Incentives

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Transportation Sector Actions

40% below 2005 and 11% of overall 51% reduction.

- Combustion Engine Performance Standards
- LDV ZEV incentives
- M/HDV ZEV incentives

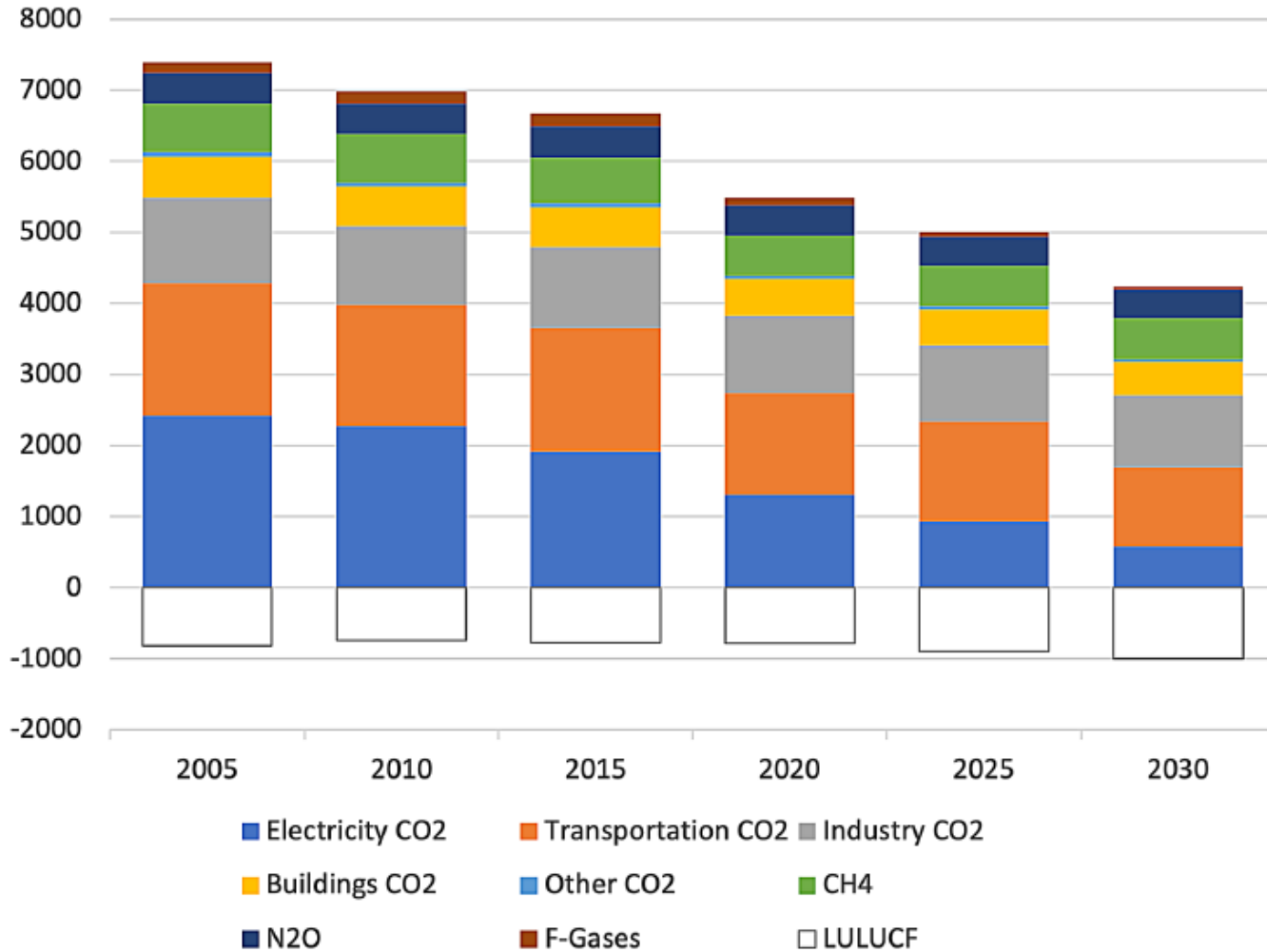
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Emissions (MMTCO2e)



LULUCF

23% increase in CO2 update, representing 3% of 51% reduction.

Substantial new investment to pay for reforestation and improved land management practices grow the land sector sink to achieve -1000 TCO2e/year in LULUCF emissions.

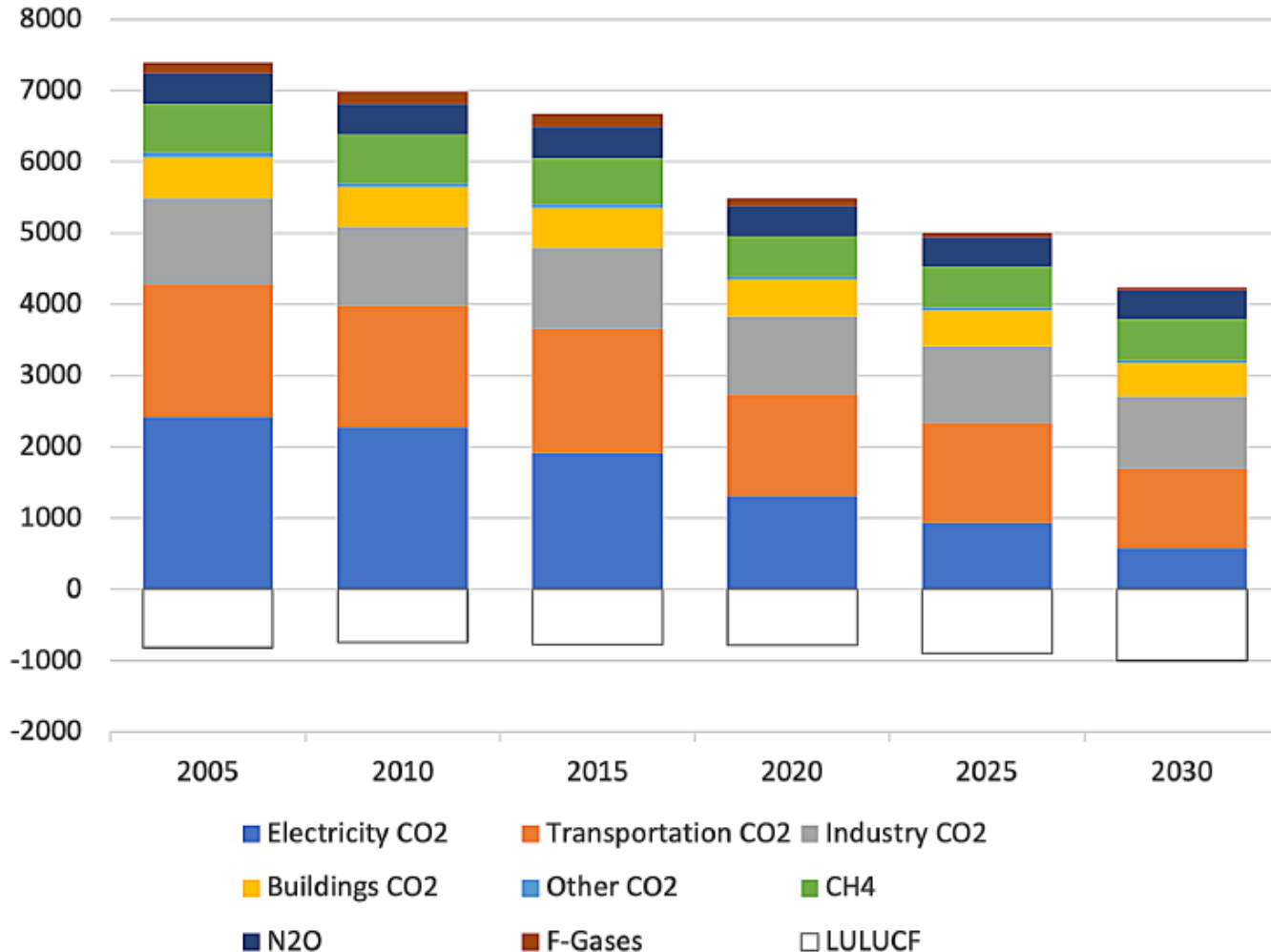
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Emissions (MMTCO₂e)



Other Sectors and Actions

- Building electrification
- Building energy efficiency
- Industry energy efficiency
- Industry carbon capture and sequestration
- Non-CO₂s GHGs: CH₄, N₂O, HFCs

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Thank You