



Renewable Natural Gas in the United States and Canada

IEA Webinar, Biomethane: a Global Stocktake

Presented by Sam Wade, Director of Public Policy, Coalition for Renewable Natural Gas
November 20, 2024

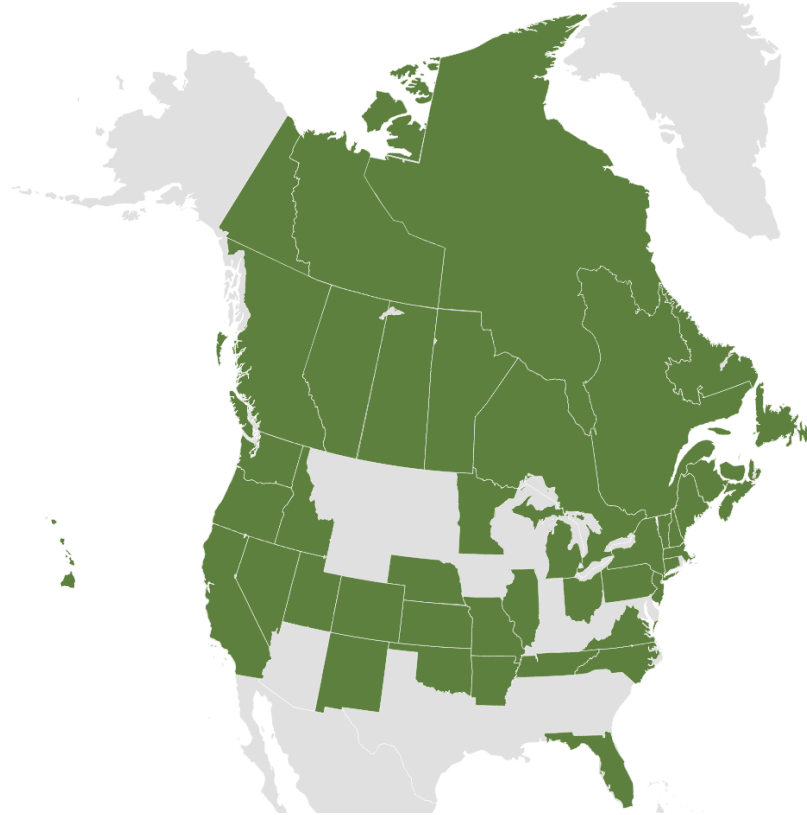


About RNG Coalition

- Provide education and policy advocacy on behalf of renewable gas and adjacent industries in North America
- We advocate for the sustainable development, deployment and utilization of renewable gas so that present and future generations will have access to domestic, renewable, clean fuel and energy
- 400+ members including: RNG developers, marketers, financiers, technology providers, consultants, utilities and labor coming together
- 98%+ of the RNG supply in North America

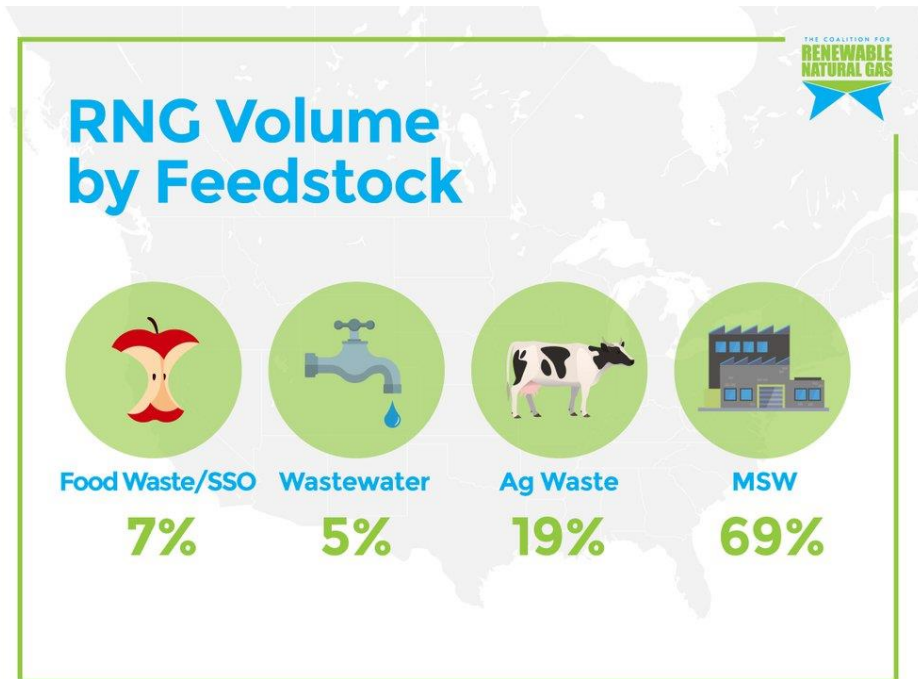


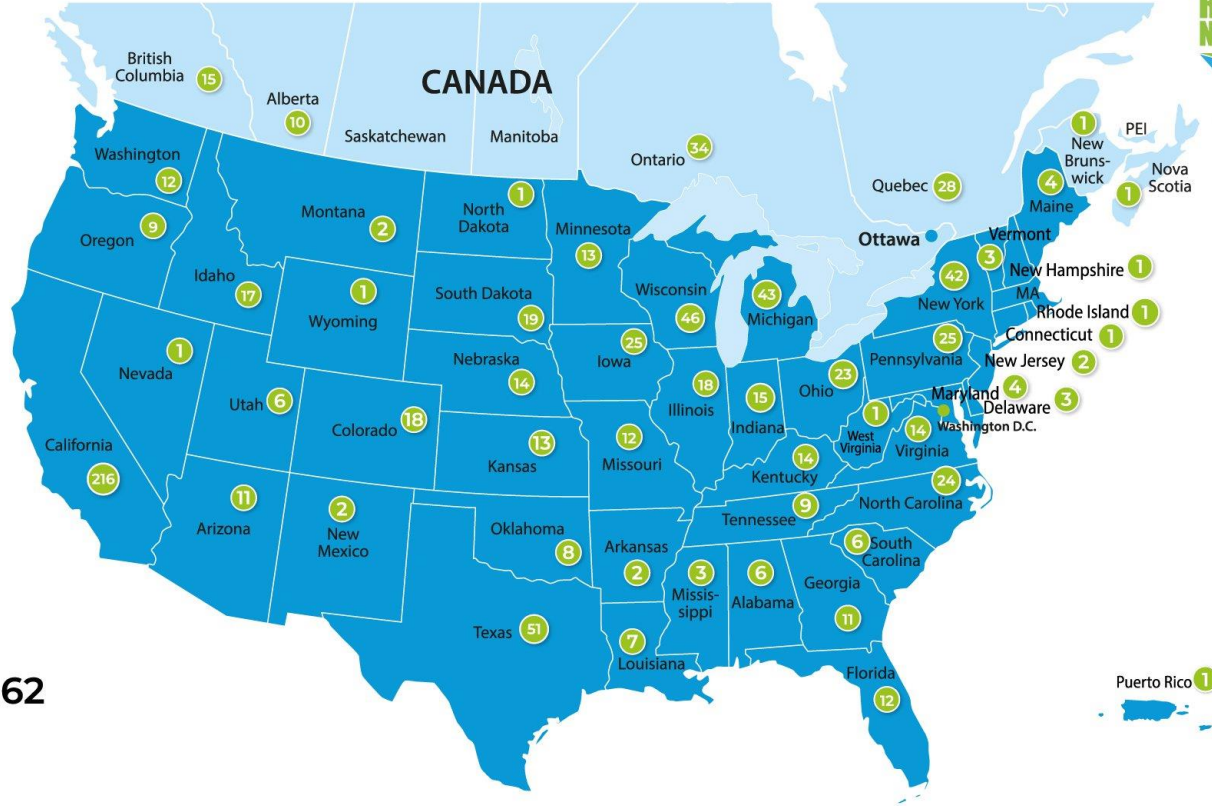
North American RNG Markets at a Glance



- Mandatory, voluntary, and other enabling policies in 44 states and provinces
- 143 tBtu/yr production capacity
- 187 tBtu/yr capacity under construction or planned
- Approximately 2% of 2023 U.S. gas demand (gas delivered to customers for non-power applications)

Where Does North American RNG Come From Today?



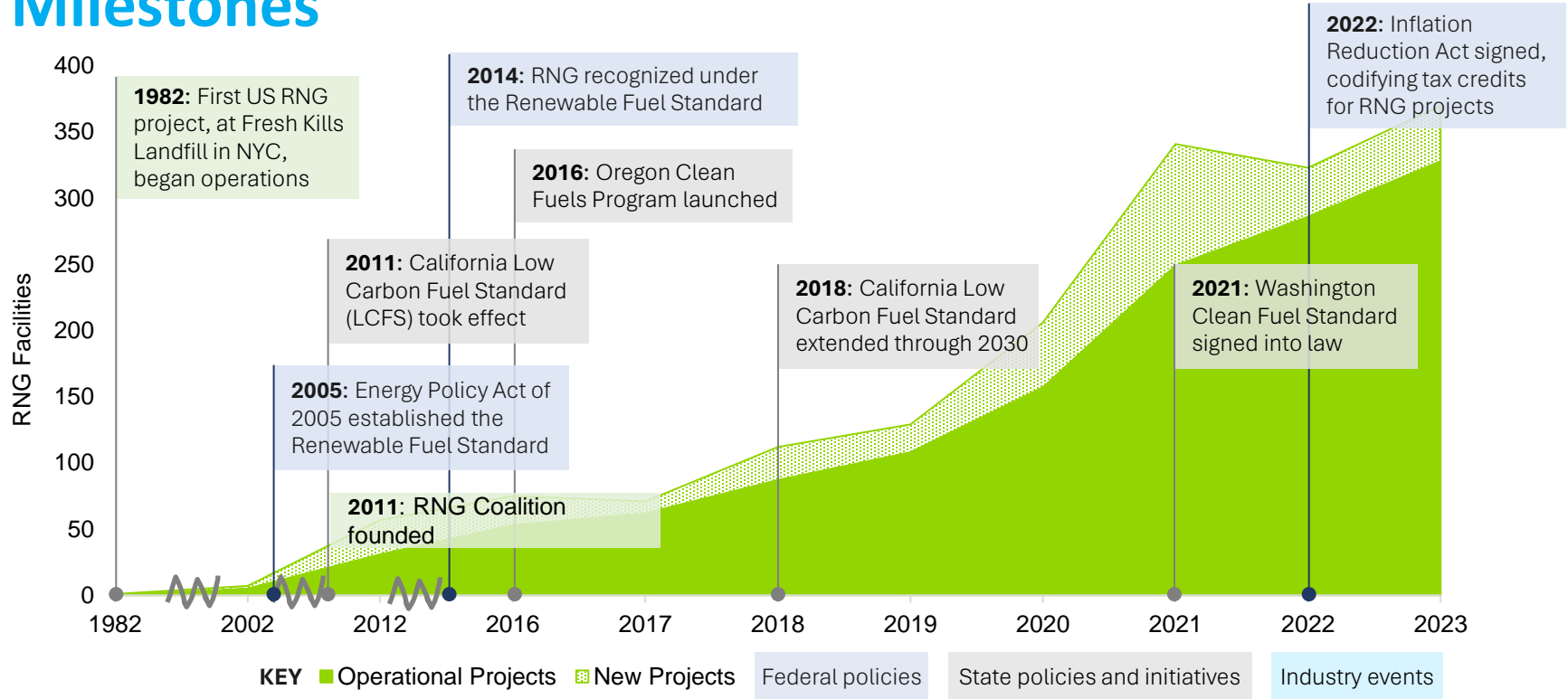


RNG Facilities

Operational: 433
Under Construction: 162
Planned: 290
Total: 885



RNG Facilities in North America and Key Policy Milestones

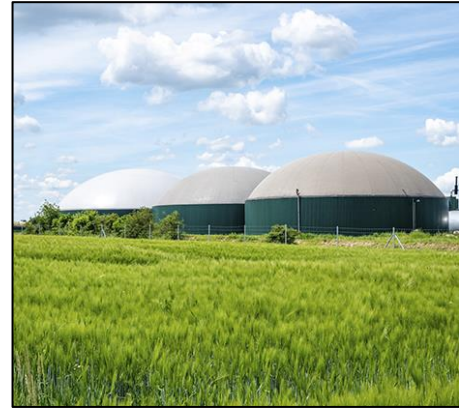


Federal US Policy



EPA Renewable Fuel Standard (RFS) Program

- Supports development and commercial-scale deployment of cellulosic biofuels
- Most RNG qualifies as cellulosic biofuel
- Grew RNG transportation fuel from 140M gal (2015) to 775M gal (2023)

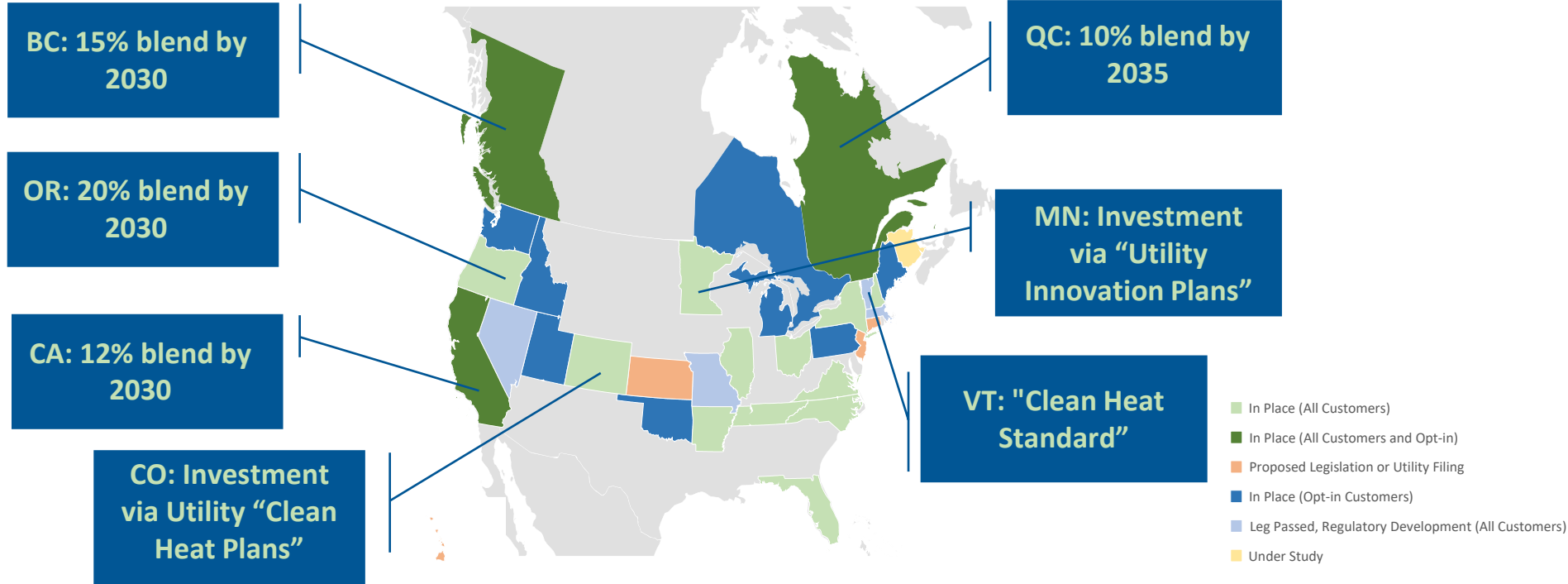


US Inflation Reduction Act

The IRA contains several new and modified that support the increased and diversified development, deployment and utilization of RNG:

- **Sec. 48** ITC modified to include “Qualified Biogas Property”
- Extension of the **alternative fuel tax credit** through 2024
 - Applicable to all transportation-quality fuels
- **Sec. 45Z** clean fuels PTC permits use of RNG as a low-carbon transportation fuel under a two-year tax credit starting in 2025
- **Sec. 45V** clean hydrogen PTC permits use of RNG and other biologically-derived feedstocks under a 10-year tax credit
- **Sec. 40b** SAF tax credit permits use of RNG as a feedstock under a tax credit — expires end of 2024
- **Sec. 45Q** carbon oxide sequestration credit
 - Important for carbon-negative RNG and low-GHG hydrogen pathways

Renewable Gas and Clean Heat Standards



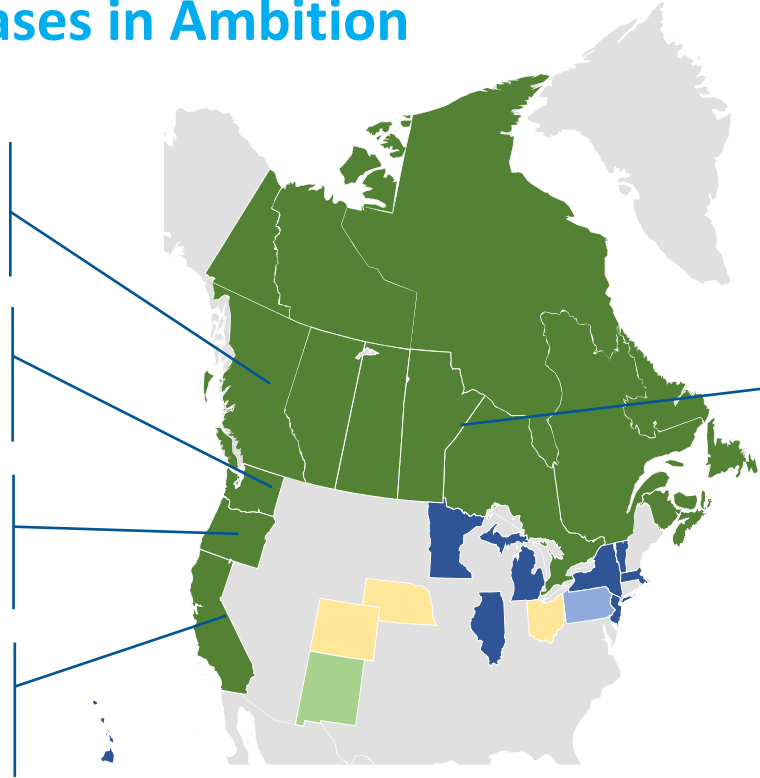
Low Carbon/Clean Fuel Standards Continue to Expand, Existing Programs Focusing on Increases in Ambition

BC: 30% by 2030 (from 2010)

WA: 20% by 2034 (from 2017)

OR: 20% by 2030, 37% by 2035 (from 2015)

CA: 30% by 2030, 90% by 2045 (from 2010)



CAN: 15% by 2030 (from 2016)

- Legislation Introduced
- Regulatory Development
- In Place
- Under Study



Renewable Energy Tracking and Certification Underpins Procurement

M-RETS

- Primary RNG verification system used by voluntary buyers
- Includes CI, feedstock, vintage, location, etc.
- Some use in compliance markets including OR, WA CFS, etc.

Green-e (Center for Resources Solutions)

- Sustainability certification
- Analogous to Green-e renewable power
- Pairs with M-RETS (optional)



M-RETS

Renewable Thermal



Green-e

Evolving Strategy for NA Renewable Gases



Near-Term: Reduce Methane Emissions

- Build biogas & RNG facilities immediately to reduce methane from organic waste streams
- Adopt public policy support to incentivize project development and begin to decarbonize the gas system

Mid-Term: Begin to Prioritize RNG Use in Hard-to-Electrify Sectors

- RNG facilities that are pipeline injected offer a flexible resource which can be sent to sectors that most need it over time
- Proximity to RNG supply becomes a key consideration as RNG comprises larger share of gas supply

Long-Term: Include H₂ with CCUS

- When hydrogen transport infrastructure develops (or pipeline blending is approved), consider transitioning bio feedstocks to the hydrogen molecule as the energy carrier (especially for non-AD feedstocks)
- Couple H₂ production with carbon capture, utilization and storage to achieve carbon-negative outcomes



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