



Developing Biogas Systems Using Livestock Manure

July 10, 2019

Our business



CNG

20 CNG stations in Midwest, Southeast & Texas



RFS & LCFS

3 Dairy RNG projects in Indiana will make RNG equivalent to 4M diesel gallon equivalents of RNG

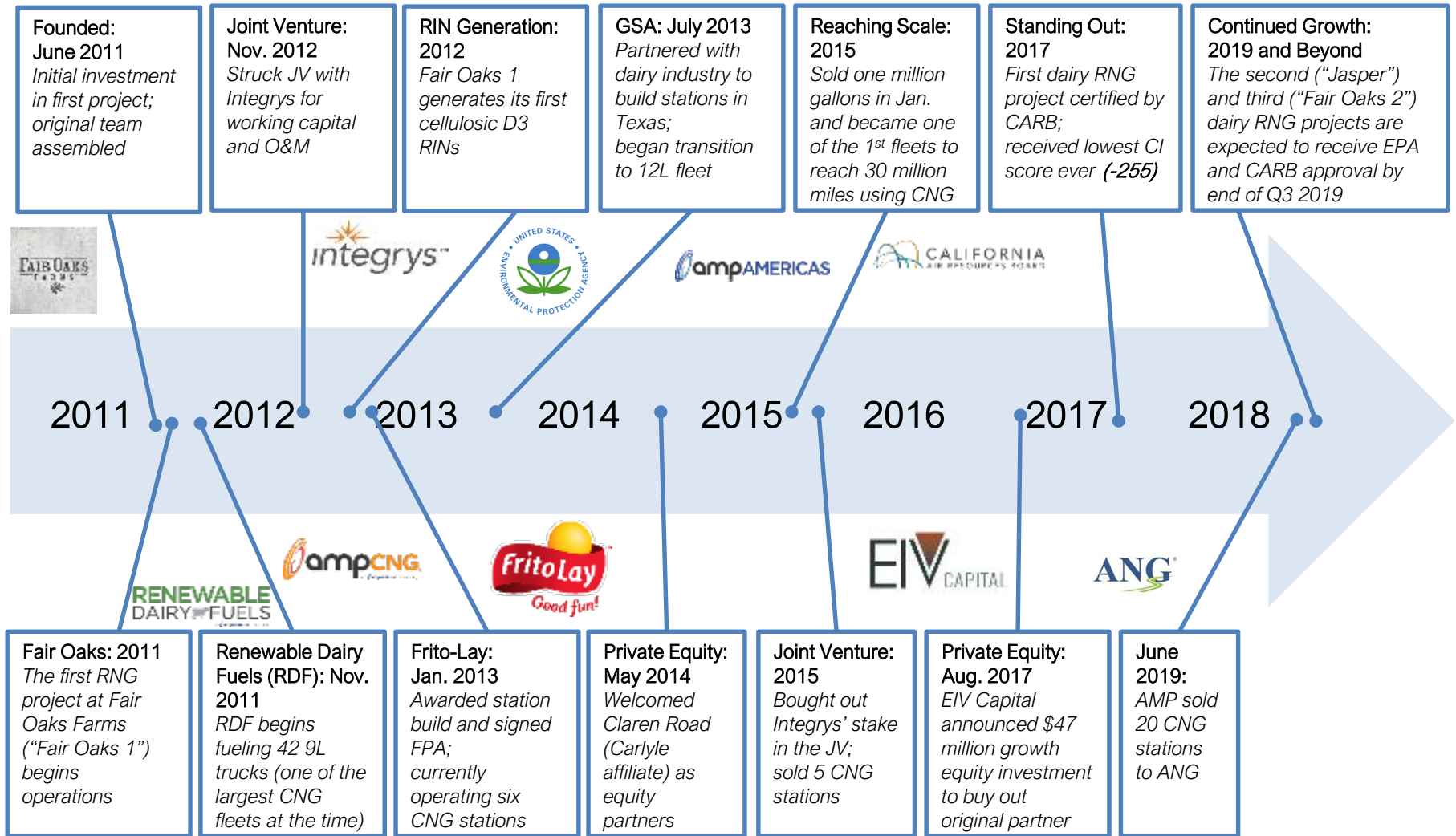


RFS & LCFS

Cross country sourcing, marketing, and dispensing capabilities



Company history



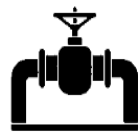
Asset-based business: AMP station network and RNG production

Value Chain

Farmer supplies waste stream for RNG production



PipeCo manages distribution and scheduling



Anchor fleets sign Fuel Purchase Agreement for 5-10 years



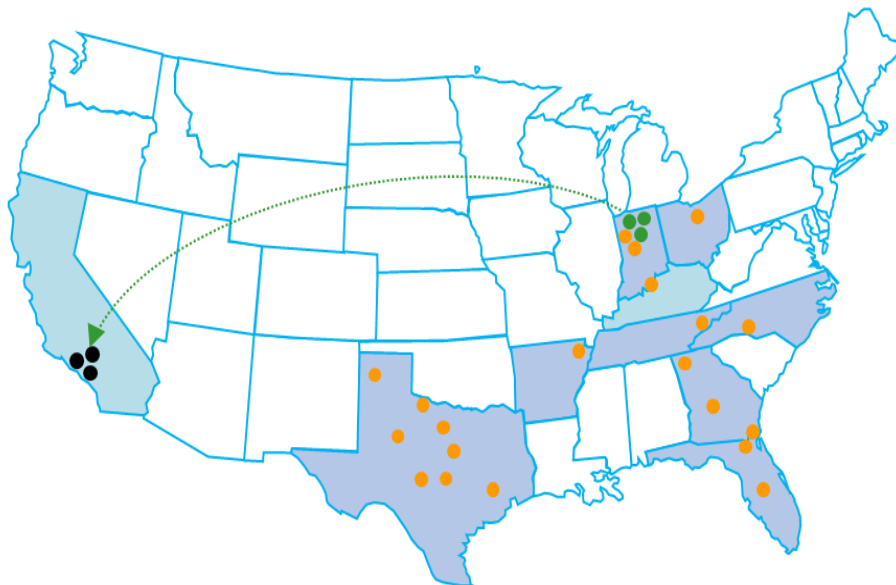
Contracts to monetize RINs



Contracts to monetize LCFS



Asset Map



- RENEWABLE DAIRY FUELS
- ampRENEW
- ampCNG

ampCNG ANG[®]



June 2019

Amp has consistently demonstrated pioneering success in low-carbon fuels

- AMP's initial dairy RNG project, Fair Oaks 1, is the first and only dairy waste-to-RNG project certified under both the LCFS and RFS programs. **Notably, Fair Oaks 1 has achieved the lowest (best) dairy Carbon Intensity ("CI") score ever awarded by California Air Resources Board (-255)**
 - Additionally, the Company commissioned one of the first 9L and 12L over-the-road CNG truck fleets, and was among the first CNG fleets to reach 30 million miles
- AMP's dairy partner, Fair Oaks Farms, is a leading innovator in the dairy industry with a vision of producing carbon-neutral milk. They are adopting innovative sustainability initiatives including waste-to-energy, nutrient recovery, and water management
- AMP has spent over eight years building a strong working relationship with its dairy partner – the Company frequently witnesses other development deals stall, or fail, due to poor relationships between project developer and farmer partners



Our customers



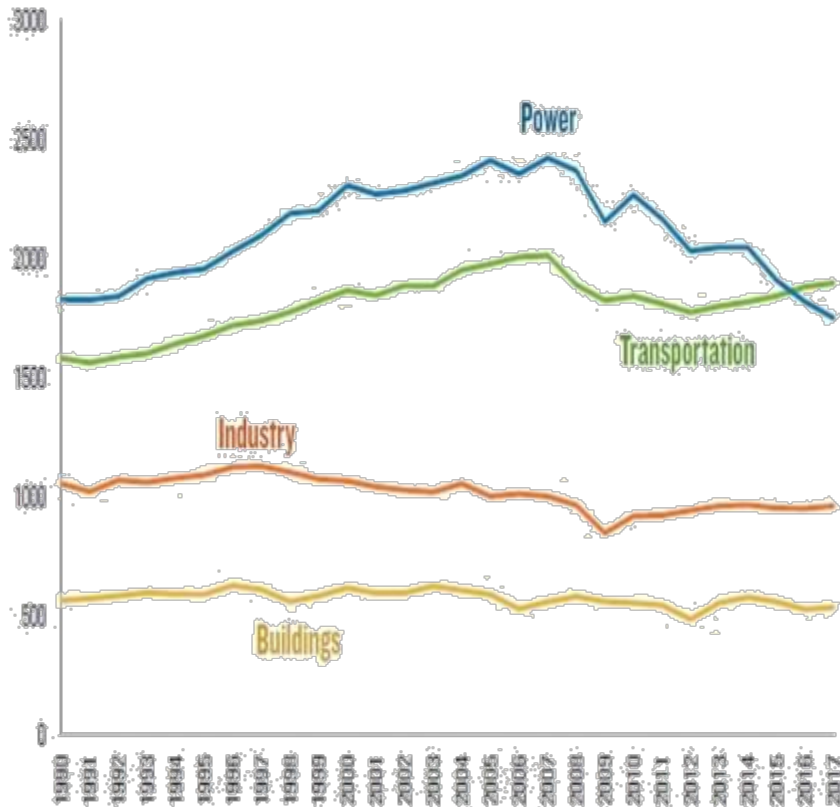
DEDICATION THAT MOVES YOUR BUSINESS



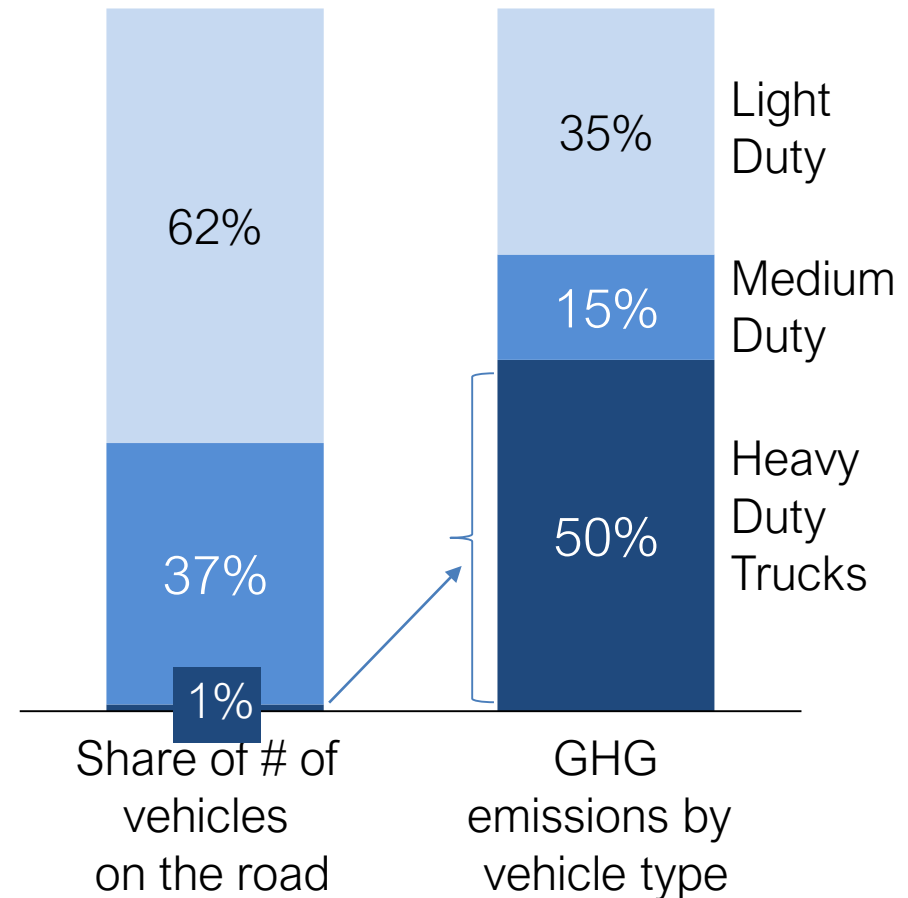
Transportation is now the largest source of CO₂ emissions and trucks are the worst

GHG emissions by sector

CO₂ emissions by sector in the U.S. (million MT)

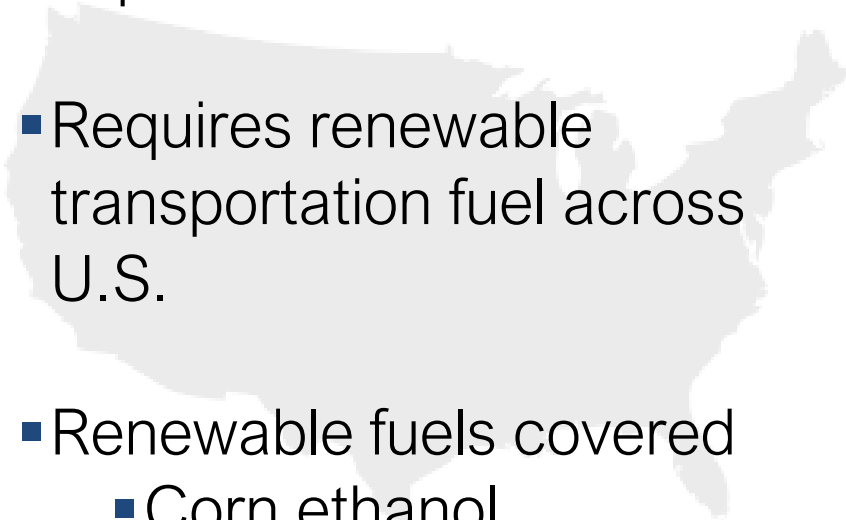


Transportation emissions by vehicle type

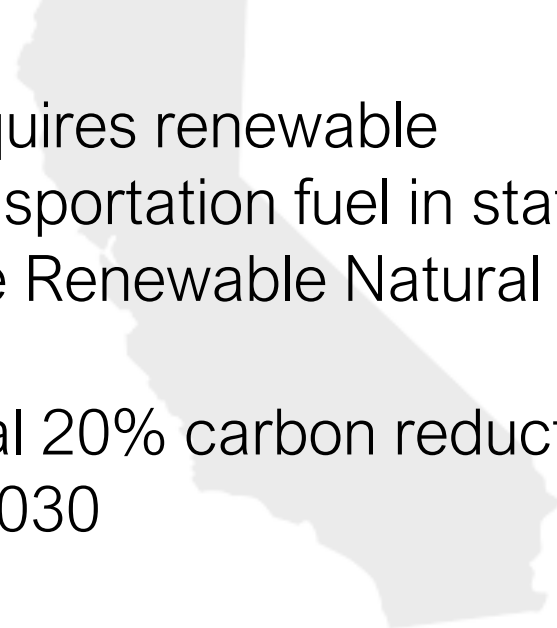


National and state renewable fuel programs

U.S. Renewable Fuel Standard

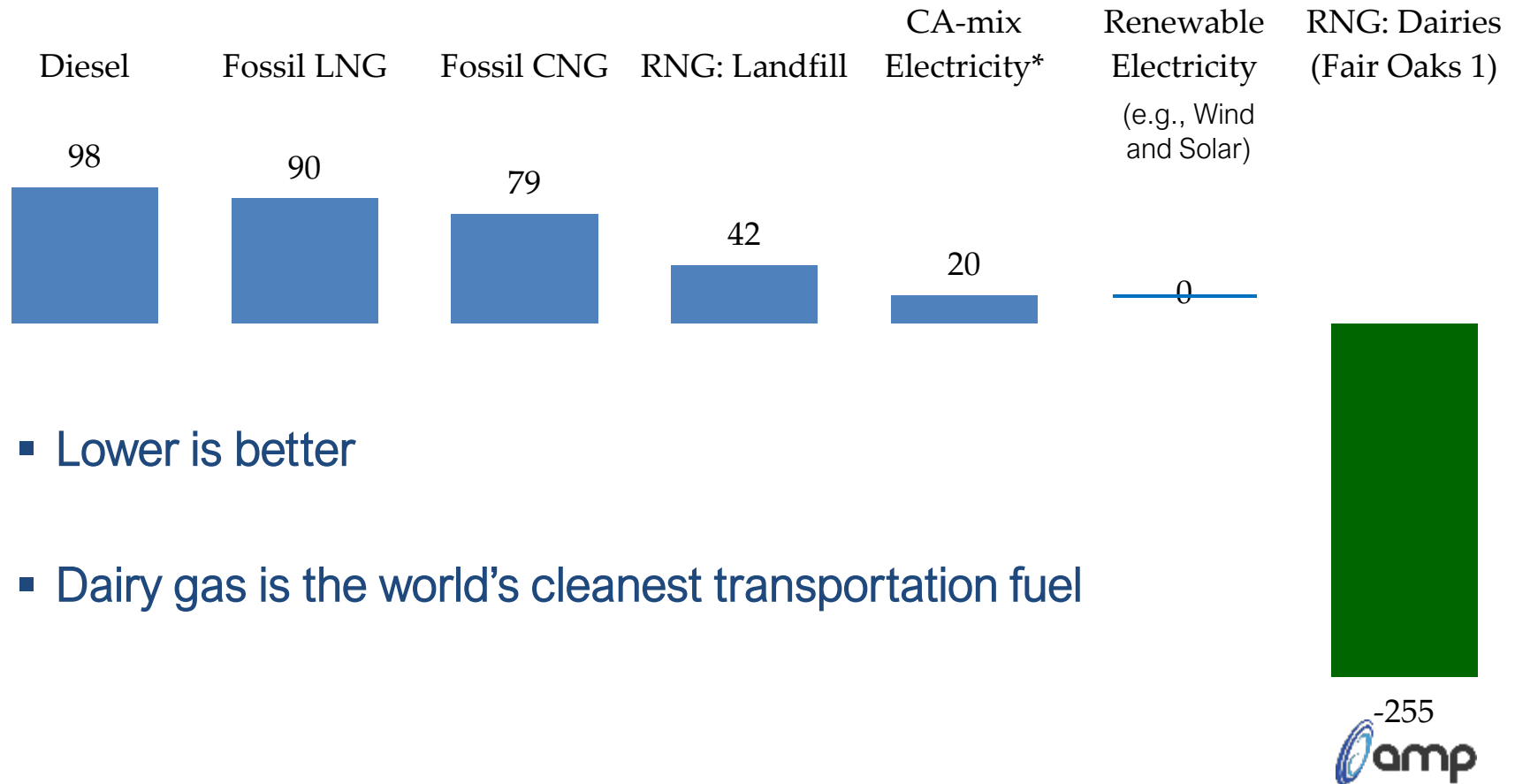
- In place since 2007
 - Requires renewable transportation fuel across U.S.
 - Renewable fuels covered
 - Corn ethanol
 - Bio-diesel
 - Non-corn ethanol
 - Renewable Natural Gas
- 

California Low Carbon Fuel Standard

- In place since 2011
 - Requires renewable transportation fuel in state (like Renewable Natural Gas)
 - Goal 20% carbon reduction in 2030
 - Targets go up each year
- 

Dairy RNG has the lowest Carbon Intensity of any fuel in the market

Carbon Intensity ("CI") score (grams of CO₂e per megajoule)



- Lower is better
- Dairy gas is the world's cleanest transportation fuel

* EER-adjusted to be comparable to natural gas scores
Source(s): California Air Resource Board, AMP analysis

It all started with Fair Oaks Farms – You've all heard about this for years

- Partner is leading innovator in dairy
 - Milk production, public education, sustainability
 - Manure management and nutrient recovery
 - Water management – reduction, reuse, recycling
 - *Vision: transparent, carbon neutral milk production*
- Our project is a part of the vision
 - 20,000 head of milking cows, 15,000 feeding the digester
 - First Dairy RNG project RINs, LCFS
 - Greenlane water wash system
 - NIPSCO interconnect
 - 3-mile private natural gas pipeline



Our newest project is up and running – Jasper

- 16,000 milking cows
- 3 digesters on 3 sites
- 7 miles of biogas pipeline
- DMT CO₂ removal and H₂S removal
- New NIPSCO interconnect



Number 3 – Site 2 – is under construction

- 4,300 milking cows
- DVO mixed plug flow – 2 cells
- Added mechanical agitation
- Sand-trapping technology
- Feeds existing Fair Oaks gas conditioning operation with minor upgrades



Four macro trends position RNG to fuel the transformation of heavy-duty trucking



1. Greenhouse gas emissions reduction

State & Federal laws (not just regulations) steadily increase required volumes of renewable fuels through 2022 and 2030



2. Air quality improvement

168 counties in non-attainment due to diesel trucking – cities/states funding transition of buses & trucks to CNG



3. Transportation cleaning up its act

EVs widely viewed as long-term solution for light duty vehicles, but no viable heavy-duty offering. 'Near-Zero' engines powered by natural gas available now. This is important as transportation is now the largest source of US CO₂ emissions.



4. Waste as a resource

Municipalities, industry and farms looking to for ways to manage organic waste & increase revenue. Capturing waste prevents methane emissions and displaces diesel

RNG opportunity

Cheap – commodity price is lower (and less volatile) than diesel for shippers

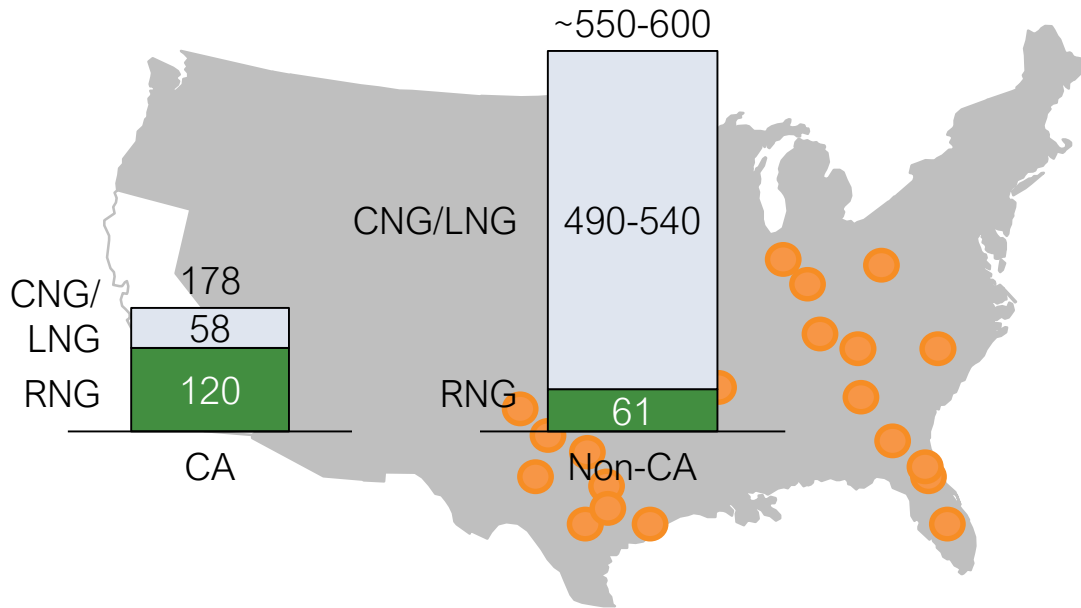
Clean – can be >100% GHG reduction & 99% smog reduction thru productive reuse of organic waste streams

American – 100% North American sourcing supports energy independence goals

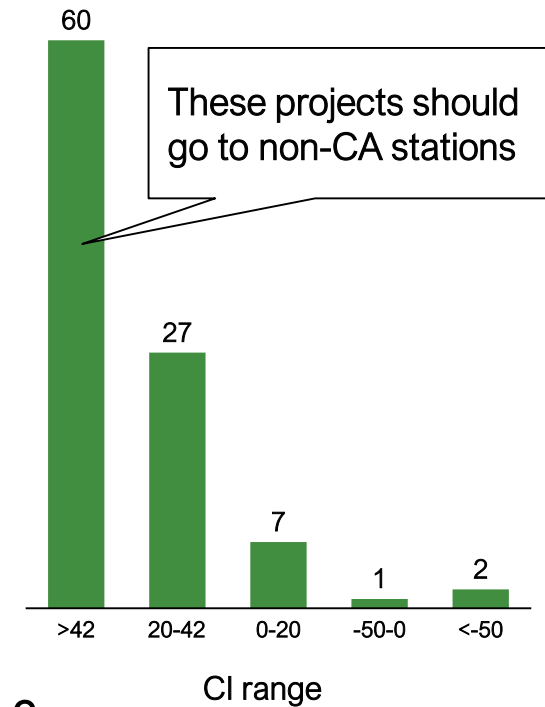
Available now – the only commercially viable truck + infrastructure solution for several more years

Outside California demand far outstrips supply

Where is the RNG?: Estimated 2018 CNG/LNG in transportation by fuel source
M gallons/year



Very few projects with very-low CI gas (pathway count)



How to get RNG to non-CA stations?
Swap for Dairy Gas
Build your own projects

Get in touch



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