Renewable Natural Gas – A Developer's Take on the Challenges

Topics for discussion

Who we are

What we (all) are trying to do

What were working on

Challenges for RNG development

What to do

Amp Americas has established history as a market leader

ampRenew
Renewable Natural Gas by ampCNG

Snapshot	Market Leadership

- Formed in 2011 to produce renewable gas
- Team of 15 people
- Backed by private equity
- Small entrepreneurial company with strong partnerships
- Flexible and fast development cycle
- 20 stations, ~1M gallons/month

- First 9L CNG trucking fleet, and first 12L CNG fleet
- Among first fleets to 30M miles on CNG
- First RFS qualified agricultural gas to transport fuel project certified by EPA
- Will be first LCFS qualified dairy gas to transport fuel project certified with CARB

Founded – Jun 2011 *First Fair Oaks project*

Renewable Dairy Fuels – Nov 2011 *Began fueling 42 9L trucks—one of largest CNG fleets at the time*

Joint Venture – Nov 2012 *JV with Integrys to build out CNG station network*

Frito Lay – Jan 2013 *Awarded station build and signed FPA; currently operating six stations*

GSA – Jul 2013 *Partnered with dairy industry to build stations in Texas; began transition to 1st 12L fleet*

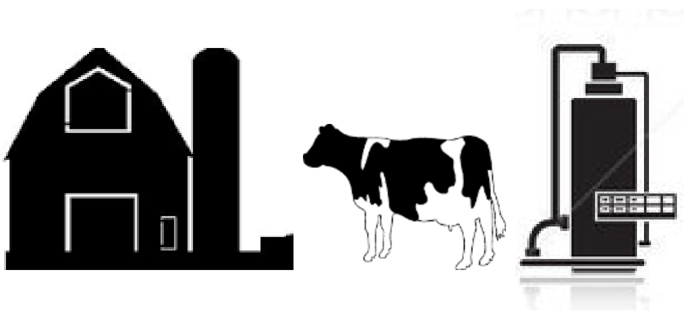
PE – May 2014 *Welcomed private equity partner*

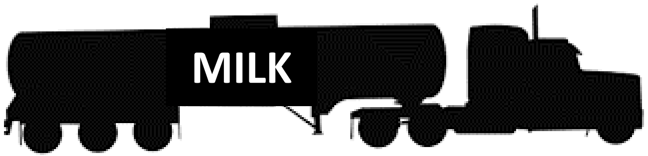
JV – Nov 2015 *Bought out Integrys's stake in JV*

Growth 2017 *Growing biogas and CNG station portfolio; GSA doubling routes*

2011 2012 2013 2014 2015 2016

RCNG Assets, experience, capability





Our operations

amprenew
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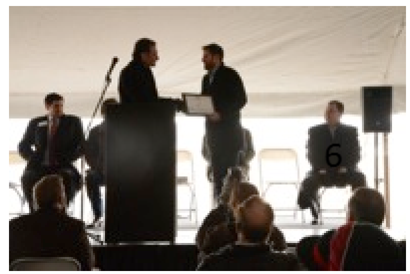


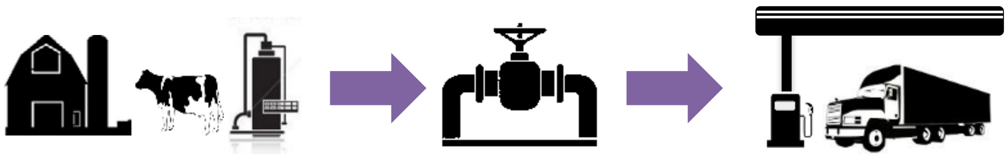
Asset-based business allows us to serve producer to consumer

ampCNG and ampRENEW assets, partnerships, and customers extend throughout supply chain

RNG production + development

Distribution contracts

ampCNG stations & fueling contracts



RIN supply contracts

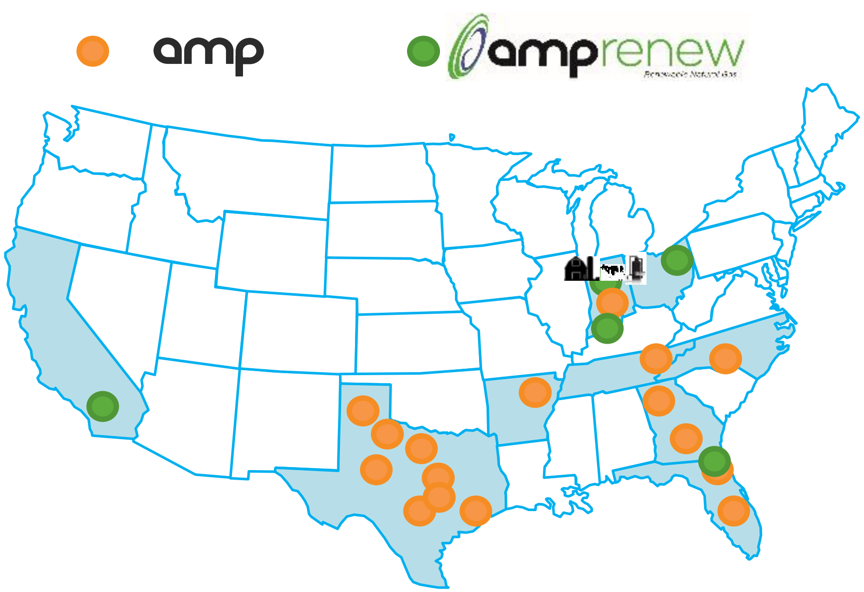
CA LCFS contracts

<u>Assets</u>

RNG production

RNG distribution

CNG stations



RNG benefits

CNG is much cleaner than diesel

20+% CO_2, 35+% NOx, 67+% PMs

amCNG Renewable Natural Gas 100% lower GHG emissions

19 ultra high performance heavy duty CNG stations

Cummins Near Zero + RCNG = **CLEANER THAN ELECTRIC**

Our goal by 2020

>5,000 semis

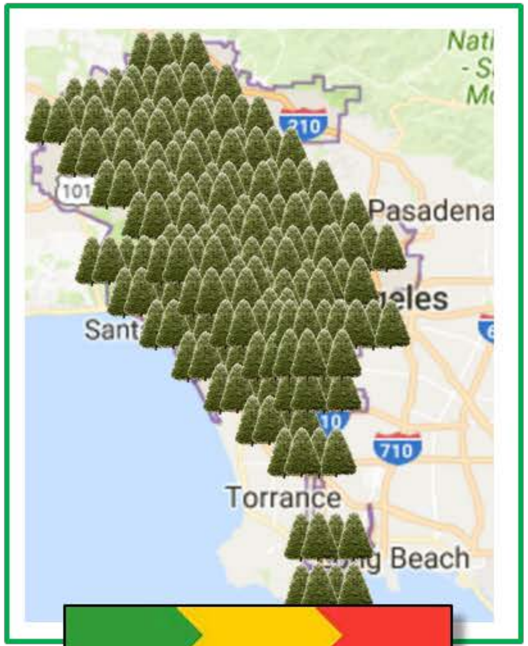
200,000 cars

1,000,000 MT CO_2e

1M tons/year of GHG reduction is planting forest the area of LA, NY, and Chicago

Renewable Natural Gas by ampCNG

Los Angeles



New York

Chicago

What we're working on

- CNG fueling and development
  - Growing our CNG network – new US Foods station
  - Partnering with fleets to build new stations each year
  - CNG station acquisitions and partnerships

- RNG Development
  - New dairy project in Midwest – larger than Fair Oaks
  - Expanding Fair Oaks – more than tripling production since startup

- Marketing, risk management, supply
  - Off-taker for multiple new projects – enabling developer financing
  - Fixed price, hybrid fixed price, variable pricing off-take arrangements
  - Providing supply for California CNG stations

Challenges

- CNG
  - Trucks cost more than diesel
  - Low diesel prices – Except CA, WA, NY, …
  - States abdicating role in incentives with VW settlement
  - RINs/LCFS not sure enough to invent investment

- Development
  - Massive capex – often tens of millions for a single project
  - Pipeline uncertainty – cost, time, yes/no
  - Inconsistent operations – esp. for AD based projects
  - Gas owner expectations – everyone has $$ in their eyes
  - RIN/LCFS uncertainty

- Marketing
  - Everyone needs a cut – gas owner, pipeline, marketer, station
  - RIN/LCFS program uncertainty

What to do about it – ‘Rules of 5’

- CNG
  - 5+5 VETC or excise tax reform
  - California is a model – diesel tax

- RNG
  - 5 year rolling RVO and price floor
  - 5 year LCFS price floor

Stability and predictability for CNG, RIN, LCFS markets would put money in fleets’ hands and drive massive transformation

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