



NG Advantage LLC

First to US Market with trucked compressed natural gas delivered to companies beyond the pipeline

Natural Gas Crib Notes

- ▶ Natural gas is methane – same stuff that comes from cow manure
- ▶ CNG is compressed natural gas
- ▶ LNG is liquefied natural gas – must be kept near absolute zero but has high energy density
- ▶ LPG is propane which is a byproduct of oil and natural gas refining. It liquefies at ambient temperatures with only slight compression. Has more carbon than NG and is usually more expensive.
- ▶ Natural gas emits 26% less CO₂ than petroleum products per BTU of energy
- ▶ Natural gas and propane have virtually no sulfur, nitrogen, or particulate emissions
- ▶ An Mcf is 1000 cubic feet of uncompressed natural gas and has approximately 1 million BTUs (MMBTU)

The Natural Gas Disruption

- ▶ Horizontal drilling and hydraulic fracturing lower the cost of pipeline natural gas in North America making it 70–75% cheaper per BTU than oil or propane
- ▶ Price disparity likely to last at least a decade
- ▶ Low cost natural gas leading to a rebirth of US manufacturing
- ▶ Benefits limited to those on pipeline

BUT companies NOT located on a pipeline at a tremendous competitive disadvantage

The NG Advantage Opportunity

- ▶ Bring the economic and environmental benefits of natural gas to companies beyond the pipeline
 - The new price disparity with oil, composite shipping containers, and advanced communication and routing make trucking compressed natural gas practical
 - Customers can save 20–40% of their fuel bills
- ▶ NG Advantage is first to market

How it works



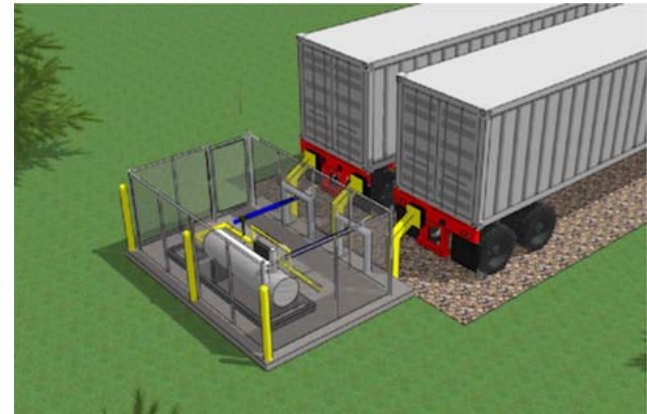
1. Compressor site on pipeline



2. Delivered in composite containers



4. Empty trailers return for refilling

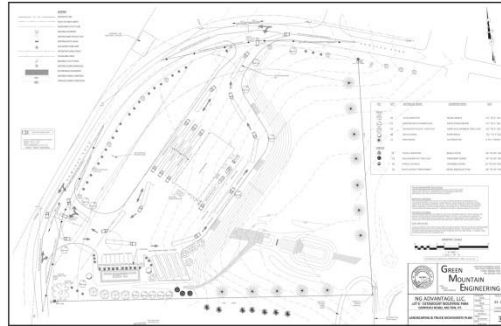


3. Customer offload facility

Milton, VT Construction

Filing to Construction in 100 days

- 6/19/12: Filed for local permit
- 7/26/12: Preliminary local approval
- 8/10/12: Final local approval
- 8/24/12: Filed for State permits
- 9/10/12: Final construction documents & vendor selected
- 9/28/12: Final State approval
- 9/28/12: Construction begins



Permitted site plan



VP of Operations & Safety Gerry Myers directs construction



VT Gov. Peter Shumlin at official groundbreaking

Help from our friends

- ▶ Bought land from GBIC
- ▶ Mortgage from GBIC
- ▶ \$1.5 million VEDA financing
- ▶ \$1.5 million Key Bank financing
- ▶ Cooperation from Milton and District Environmental Commission
- ▶ Speedy action by Vermont Gas
- ▶ Strong support from ANR
- ▶ Bruce Gardner and the Brattleboro Development Credit Corporation
- ▶ Initial customers in Vermont

Monday, January 14, 2013



More Pictures



Estimated Savings for Actual Customer

* Replacing #6 @ \$3.00/gal *

Estimated Current Cost

<i>Fuel</i>	<i>Annual usage</i>	<i>Unit price</i>	<i>Equivalent natural gas price (per Mcf)</i>	<i>Current annual cost (estimated)</i>
#6 oil	1,500,000 gal	\$3.00	\$19.69	\$4,500,000

NG Advantage: 228,600 Mcf of natural gas to replace #6

<i>Contract option</i>	<i>Henry Hub future Price*</i>	<i>Process & delivery adder</i>	<i>Our price (per Mcf)</i>	<i>Natural gas annual cost</i>	<i>Estimated annual savings</i>	<i>Percent savings</i>
4-Year Variable	\$3.75	\$8.30	\$12.05	\$2,754,630	\$1,745,370	39%

Annual emissions reduction for Actual Customer

In addition to being a domestically abundant and secure source of energy, natural gas is also cleaner.

	Reduction of pollutants compared to #6 oil
SO ₂	353,113 lbs
Nox	38,496 lbs
CO ₂	9,168,000 lbs








Natural Gas and the Environment

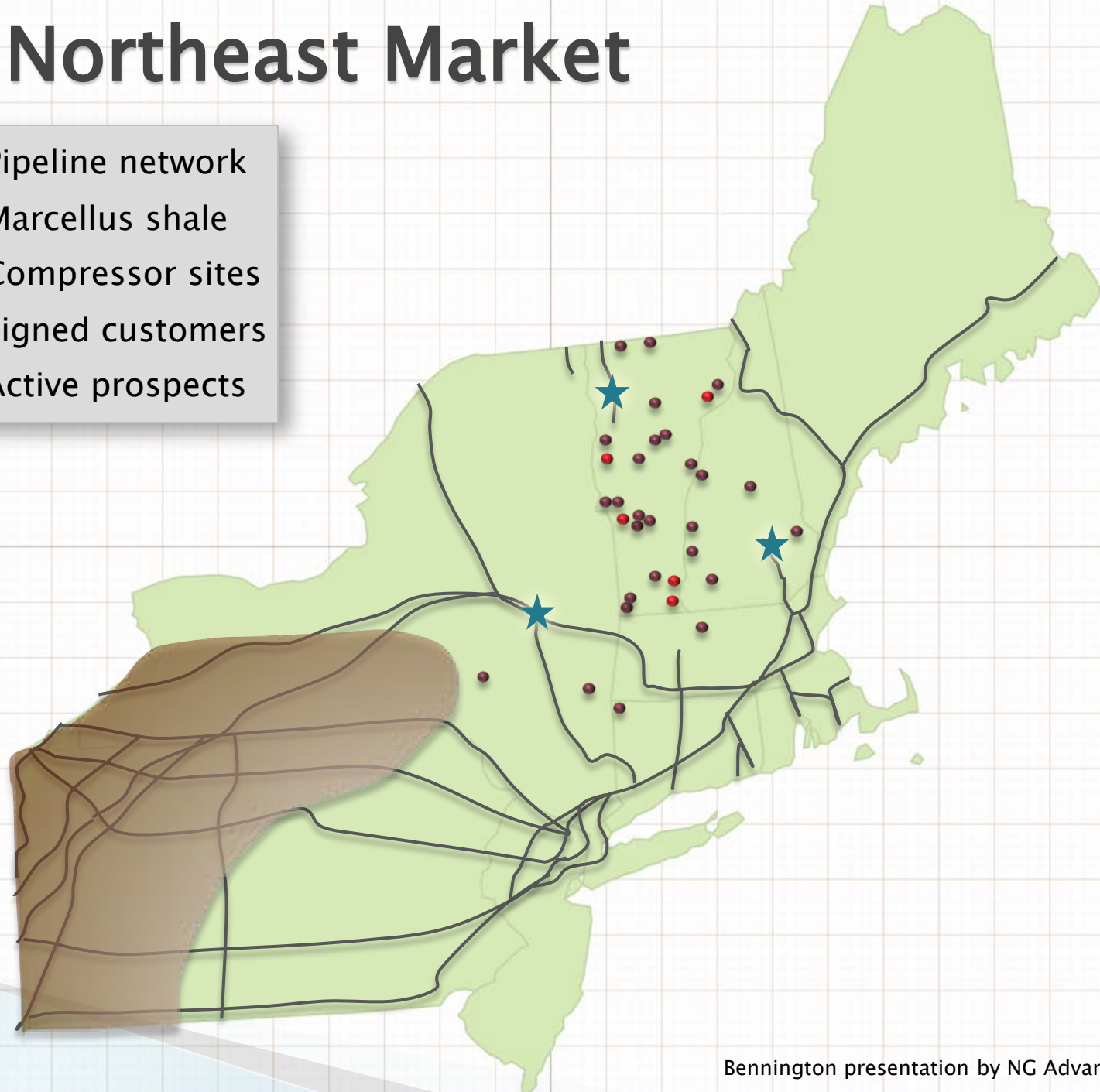
- ▶ 50% less CO₂ than coal
- ▶ 27% less CO₂ than oil products
- ▶ NO particulates; practically no SO₂ or NO_x
- ▶ US emissions of CO₂ have declined almost 13% since 2007 – NY Times 3/20/13
- ▶ European emissions are way up, especially in Germany where they have only Russian gas and are burning more coal
- ▶ The primary source of CO₂ in Vermont is burning oil products for heat and transportation
- ▶ Vermont energy plan calls for more use of NG BUT pipeline expansion is very slow



Additional Information

The Northeast Market

-  Pipeline network
-  Marcellus shale
-  Compressor sites
-  Signed customers
-  Active prospects



Price Sensitivity – Large User

Large user
1.5 million gallons of #6
100 miles from Milton

		Price of natural gas (NYMEX)																				
		\$3.00	\$3.25	\$3.50	\$3.75	\$4.00	\$4.25	\$4.50	\$4.75	\$5.00	\$5.25	\$5.50	\$5.75	\$6.00	\$6.25	\$6.50	\$6.75	\$7.00	\$7.25	\$7.50	\$7.75	\$8.00
Price of #6 oil per gallon	\$2.00	21%	19%	17%	15%	13%	11%	9%	7%	5%	3%	1%	0%	-2%	-4%	-6%	-8%	-10%	-12%	-14%	-16%	-18%
	\$2.25	29%	28%	26%	24%	23%	21%	19%	17%	16%	14%	12%	11%	9%	7%	6%	4%	2%	1%	-1%	-3%	-5%
	\$2.50	36%	35%	33%	32%	30%	29%	27%	26%	24%	23%	21%	20%	18%	17%	15%	14%	12%	10%	9%	7%	6%
	\$2.75	42%	41%	39%	38%	37%	35%	34%	32%	31%	30%	28%	27%	26%	24%	23%	21%	20%	19%	17%	16%	14%
	\$3.00	47%	46%	44%	43%	42%	41%	39%	38%	37%	36%	34%	33%	32%	30%	29%	28%	27%	25%	24%	23%	22%
	\$3.25	51%	50%	49%	48%	46%	45%	44%	43%	42%	41%	39%	38%	37%	36%	35%	33%	32%	31%	30%	29%	28%
	\$3.50	55%	53%	52%	51%	50%	49%	48%	47%	46%	45%	44%	43%	42%	40%	39%	38%	37%	36%	35%	34%	33%
	\$3.75	58%	57%	56%	55%	54%	53%	52%	50%	49%	48%	47%	46%	45%	44%	43%	42%	41%	40%	39%	38%	37%
	\$4.00	60%	59%	58%	57%	56%	55%	55%	54%	53%	52%	51%	50%	49%	48%	47%	46%	45%	44%	43%	42%	41%
	\$4.25	63%	62%	61%	60%	59%	58%	57%	56%	55%	55%	54%	53%	52%	51%	50%	49%	48%	47%	46%	46%	45%
	\$4.50	65%	64%	63%	62%	61%	60%	60%	59%	58%	57%	56%	55%	55%	54%	53%	52%	51%	50%	49%	49%	48%
	\$4.75	67%	66%	65%	64%	63%	63%	62%	61%	60%	59%	59%	58%	57%	56%	55%	54%	54%	53%	52%	51%	50%
	\$5.00	68%	67%	67%	66%	65%	64%	64%	63%	62%	61%	61%	60%	59%	58%	58%	57%	56%	55%	54%	54%	53%

Price Sensitivity – Medium User

Medium user
700,000 gallons of propane
100 miles from Milton

		Price of natural gas (NYMEX)																				
		\$3.00	\$3.25	\$3.50	\$3.75	\$4.00	\$4.25	\$4.50	\$4.75	\$5.00	\$5.25	\$5.50	\$5.75	\$6.00	\$6.25	\$6.50	\$6.75	\$7.00	\$7.25	\$7.50	\$7.75	\$8.00
Price of propane per gallon	\$1.00	-4%	-7%	-9%	-11%	-14%	-16%	-18%	-20%	-23%	-25%	-27%	-30%	-32%	-34%	-36%	-39%	-41%	-43%	-46%	-48%	-50%
	\$1.25	16%	15%	13%	11%	9%	7%	5%	4%	2%	0%	-2%	-4%	-6%	-7%	-9%	-11%	-13%	-15%	-16%	-18%	-20%
	\$1.50	30%	29%	27%	26%	24%	23%	21%	20%	18%	17%	15%	14%	12%	11%	9%	8%	6%	4%	3%	1%	0%
	\$1.75	40%	39%	38%	36%	35%	34%	32%	31%	30%	29%	27%	26%	25%	23%	22%	21%	19%	18%	17%	15%	14%
	\$2.00	48%	47%	45%	44%	43%	42%	41%	40%	39%	37%	36%	35%	34%	33%	32%	31%	29%	28%	27%	26%	25%
	\$2.25	54%	53%	52%	51%	49%	48%	47%	46%	45%	44%	43%	42%	41%	40%	39%	38%	37%	36%	35%	34%	33%
	\$2.50	58%	57%	56%	55%	55%	54%	53%	52%	51%	50%	49%	48%	47%	46%	45%	45%	44%	43%	42%	41%	40%
	\$2.75	62%	61%	60%	60%	59%	58%	57%	56%	55%	55%	54%	53%	52%	51%	50%	50%	49%	48%	47%	46%	45%
	\$3.00	65%	64%	64%	63%	62%	61%	61%	60%	59%	58%	58%	57%	56%	55%	55%	54%	53%	52%	51%	51%	50%
	\$3.25	68%	67%	66%	66%	65%	64%	64%	63%	62%	62%	61%	60%	59%	59%	58%	57%	57%	56%	55%	54%	54%
	\$3.50	70%	69%	69%	68%	68%	67%	66%	66%	65%	64%	64%	63%	62%	62%	61%	60%	60%	59%	58%	58%	57%
	\$3.75	72%	72%	71%	70%	70%	69%	68%	68%	67%	67%	66%	65%	65%	64%	64%	63%	62%	62%	61%	61%	60%
	\$4.00	74%	73%	73%	72%	72%	71%	70%	70%	69%	69%	68%	68%	67%	66%	66%	65%	65%	64%	64%	63%	62%

Primary customer base

- ▶ Industrial: wood products manufacturing, food processing, aerospace manufacturing, aggregate and asphalt production, plastics and composites manufacturing
- ▶ Commercial: four season resorts, ski areas
- ▶ Institutional: hospitals, state government buildings, fleet operators
- ▶ Natural gas fueling stations beyond the pipeline (future)