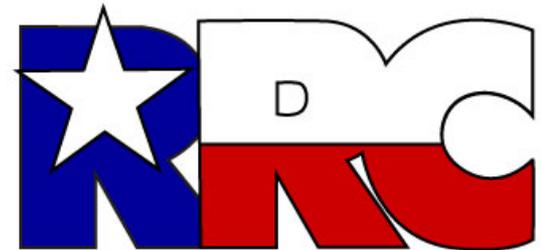




SWN

Why SWN Choose Natural Gas Vehicles?



Texas Railroad Commission

Natural Gas Summit Austin, TX

October 23rd 2014

Eddie Murray

- **I will take you through our reasoning.**
- **What we planned.**
- **Our costs.**
- **Our annual savings.**
- **Moving ahead.**

We needed to ask some questions:

Do we want to lead change?

Do we want to diversify our fuel choice?

Were we tired of unstable fuel costs?

Do we want to be part of improving air quality?

Do we want to move forward with the change?

What were the costs of entry?

And the million \$\$\$ question was...

How?

Because Natural Gas is...

- Clean
- Safe
- Abundant
- Economical
- American
- Local



Why SWN decided on CNG?

It's Cleaner...

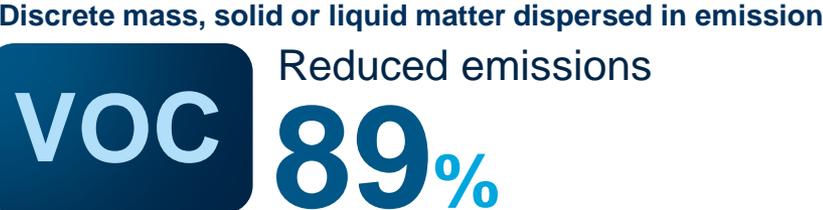
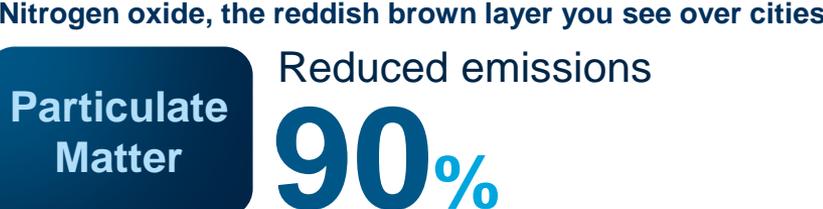


Compressed Natural Gas

Compared to **gasoline** or **diesel**



Converting one trash truck from diesel to CNG is equal to taking 325 cars off the road.



Volatile organic compound



Why SWN decided on CNG?

It's Cleaner...



GET MONEY TO UPGRADE OR REPLACE YOUR TRUCK OR EQUIPMENT—AND CLEAR THE AIR!



Drive Clean Across Texas



Natural Gas aligned with environmental programs

R²
A → V⁺

Why SWN decided on CNG?

ECH₂O
energy conserving water

Conservation - Reduction - Protection - Innovation

It's Safe...

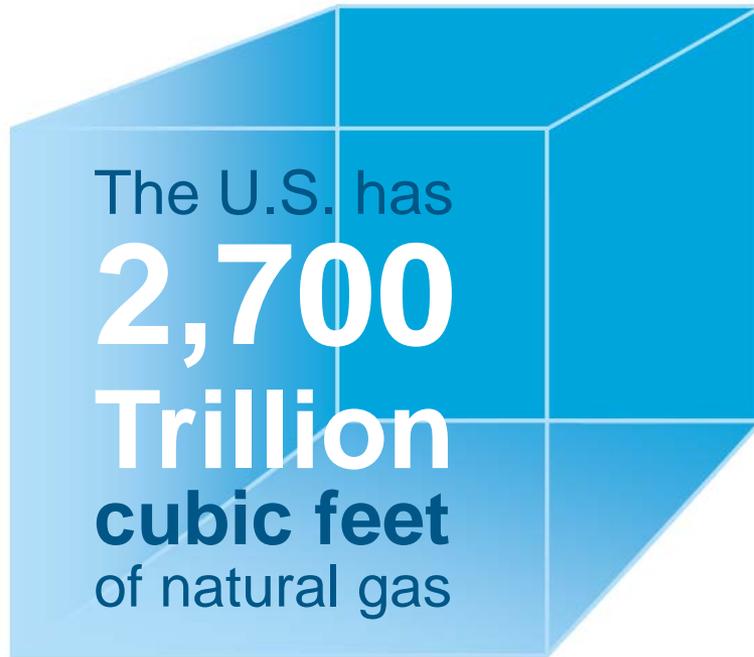
- In the event of a spill, CNG poses no threat to land or water, it's nontoxic.
- CNG disperses rapidly, less risk compared to petroleum.
- Natural gas is lighter than air and will not pool.
- It's the same gas we use to heat our home, cook our food and generate power for electricity.



It's Abundant...



It's Abundant...



Enough for more than

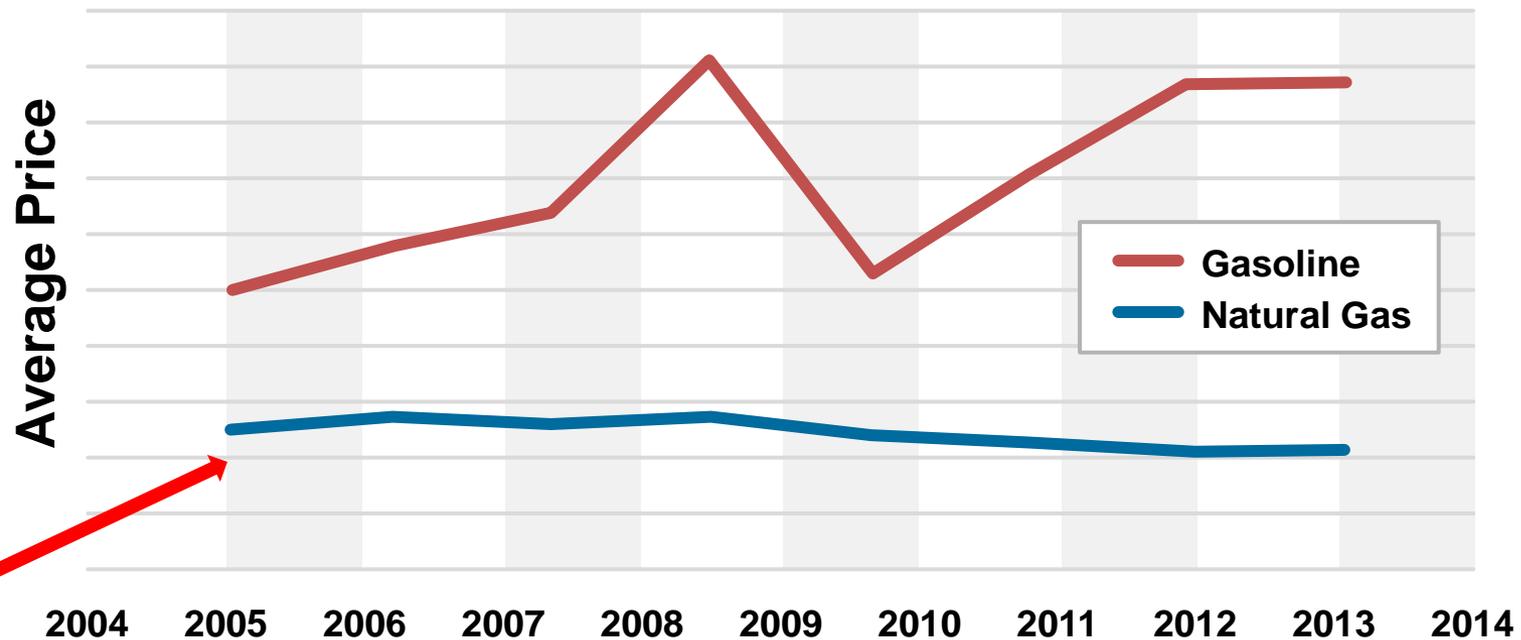
100+
YEARS

America has as much natural gas as Saudi Arabia has oil.

YEARS

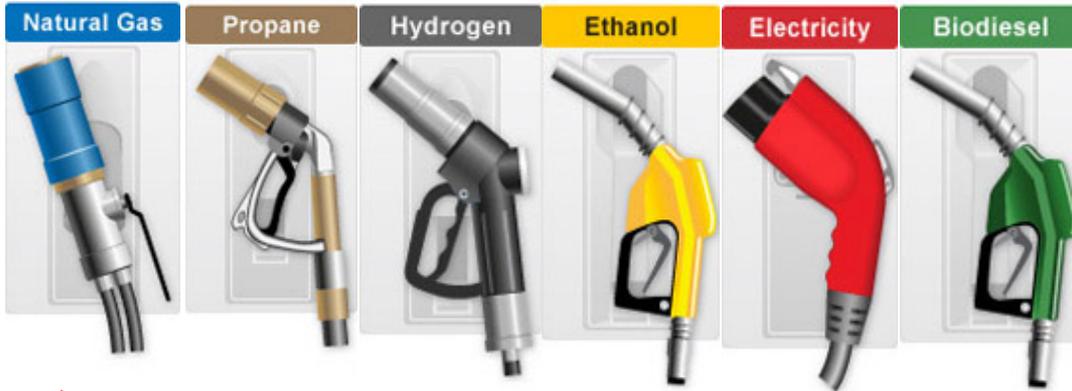
It's Economical... Pricing stable and affordable

Natural Gas and Gasoline Prices from 2004 - 2014

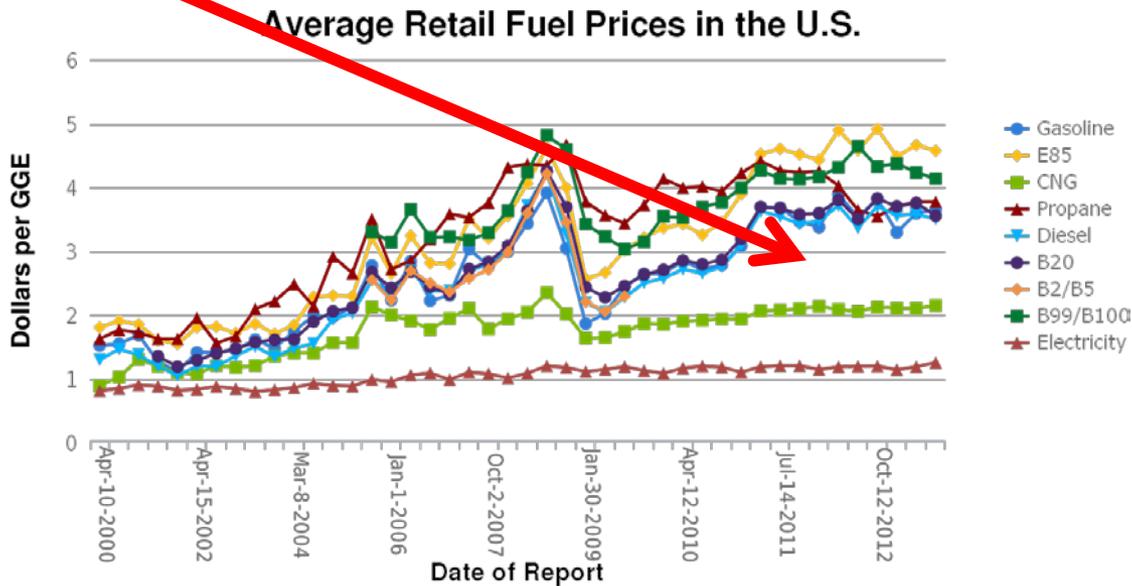


Utilizing NG in vehicles is saves \$\$\$.

We looked at the available choices



CNG was the best idea!



Why we decided on CNG?

Pricing...



\$3.50	Gas
- \$2.00	CNG
\$1.50	Savings Per gallon

It's American...

We produce it here

Our money stays here

Our jobs are created here

**Our wealth is created here in
America!**

**We need to do this for our good and
our kids good.**

**The transportation sector both cars
and trucks accounts for 72 percent of
U.S. petroleum usage.**



It's Texas...



**Powering our state and local
economy!**

We could be reactive – wait until change is forced to happen; due to competitive pressure, environmental pressure and/or economic pressure.

We could be Proactive – engage in change; diversify fuels, clean the air, save \$\$\$ and realize the full benefits **NOW.**

I am here today to tell you it is working.

**“We need to do more to make
this fuel readily available for
consumers”**

Steve Mueller, SWN CEO



What we did at SWN? 1st step with CNG

- **We built a Public fast fill station just outside our largest service yard**
 - **Cost all in \$1.6M without grant funding**
- **Purchased 100 CNG ½ Ton and ¾ Ton light duty field trucks to replace retiring fleet.**
 - **Added Cost at the time \$1.3M year w/o grant funding**
- **We invited our service partners to deploy vehicles and trucks, as their vehicles retired.**



What we did at SWN? Next steps

- **After the success of the first station we built our second to support more of our fleet and suppliers.**
 - **Cost all in 1.4M without grant funding**
 - **Added 80 more CNG trucks to the retiring fleet \$920,000 w/o grant funding**
- **We have now invited the county services, the Police departments and other area businesses to deploy vehicles. This 2nd location is just off the interstate freeway.**



What we did at SWN?



- SWN is tracking 180 CNG vehicles in AR, of our 900 fleet.
- We are added 100 new CNG vehicles to the retiring fleet this year to total 280. The added cost \$900,000
- We challenge our drivers to utilize CNG 90% of the time.
- We average 12.6 MPG, 2262 gals per truck per yr.

How are we doing at SWN? – Savings impact

Summary utilizing current SWN CNG fleet effect in Arkansas		
	12 Month Equivalent	12 Month Equivalent
	No CNG	90% CNG Utilization
Total Gas Gallons	407,000	407,000
Gas Gallons	407,000	40,700
CNG Gallons		366,300
Gas Cost @ \$3.35	\$1,363,000.00	\$136,300.00
CNG Cost @ \$1.50		\$550,000.00
TTL Fuel Cost	\$1,363,000.00	\$686,300.00

Saving approximately \$676,000.00+

Utilizing our 180+ the new CNG vehicles at 90%; SWN the fuel cost savings will be;

\$750,000 to \$ 800,000 in 2014

Displace 360,000 gallons of petroleum

Adding our newly deployed vehicles we estimate 480,000 gallons displaced

Plus the emission reduction results we receive!

What we did at SWN? Built this station 1st



$\frac{R^2}{A} \rightarrow V^+$

What we did at SWN?

Deployed SWN Fleet



What we did at SWN?

Got our vendors filling



What we did at SWN?

Got our vendors filling



$\frac{R^2}{A} \rightarrow V^+$

What we did at SWN?

Got the County and local businesses filling



What we did at SWN?

Continue to get customers to utilize CNG



$\frac{R^2}{A} \rightarrow V^+$

- **Continue to be a catalyst promoting natural gas for transportation.**
- **Continue deploying company vehicles.**
- **Build infrastructure to support our fleet and the public.**



So...

**What's the guarantee?
I can guarantee one thing:**

There will be change ahead!

Change; "replace with another."

Change will happen. SWN will be a part of it!



Chevy – Technology is changing...



**BI-FUEL CNG
AVAILABLE
ON ALL
2015 HD PICKUPS**
BOTH 2500 AND 3500
IN ALL CAB CONFIGURATIONS



New CNG Impala



Ford

Broad Commercial Portfolio

The collage features a central Ford logo surrounded by various commercial vehicles: a white van, a white truck chassis, a white ambulance-style van, a white box van, a white Super Duty truck, a white truck with a Doritos advertisement, a dark Super Duty truck, a yellow taxi van, a dark Super Duty truck, a white dump truck, a white truck chassis, a red van, a silver Super Duty truck, and a white van with a Lay's advertisement. A green circular icon with a leaf symbol is also present in the bottom right corner of the collage.



Ram is the only North American brand to offer a factory-built CNG truck

- Factory tested – durability and safety
- Factory complete
- Factory shipped direct
- Factory warranty
- Serviceable at 2400 authorized dealers



- Ram 2500 ST & SLT 4x4 w/ 8' Box
- Bi-Fuel System
- 5.7L V8 HEMI CNG
- CNG Range = 255 miles (18.2 GGE)
- Total Range (8-gallon) = 367 miles
- Total Range (32-gallon) = 703 miles



Other Transportation is changing...



CNG Civic



CNG Buses



CNG Trolleys



Leasing companies are changing...



“We see a great deal of interest from customers and prospects in the region that are looking to integrate natural gas technology into their fleets.”

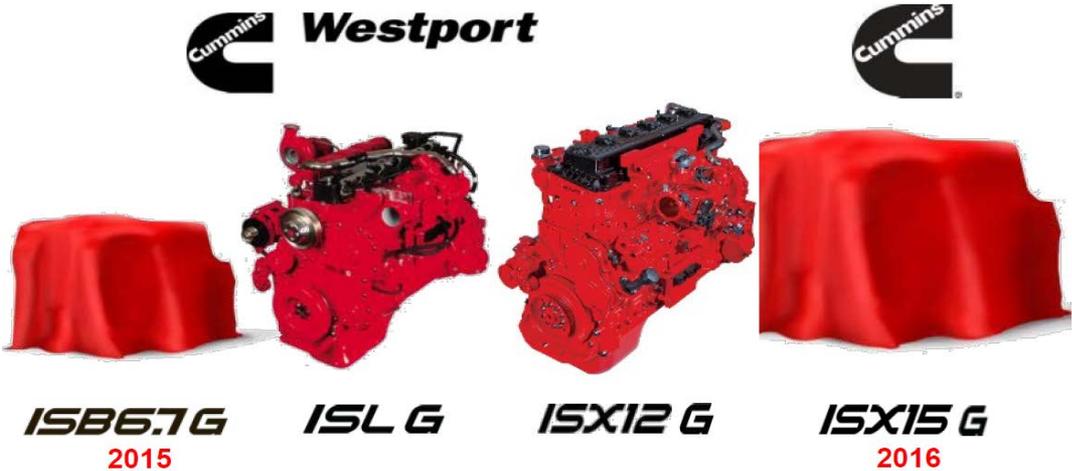
Alex Madrinkian, Vice President of Sales, Ryder West Region



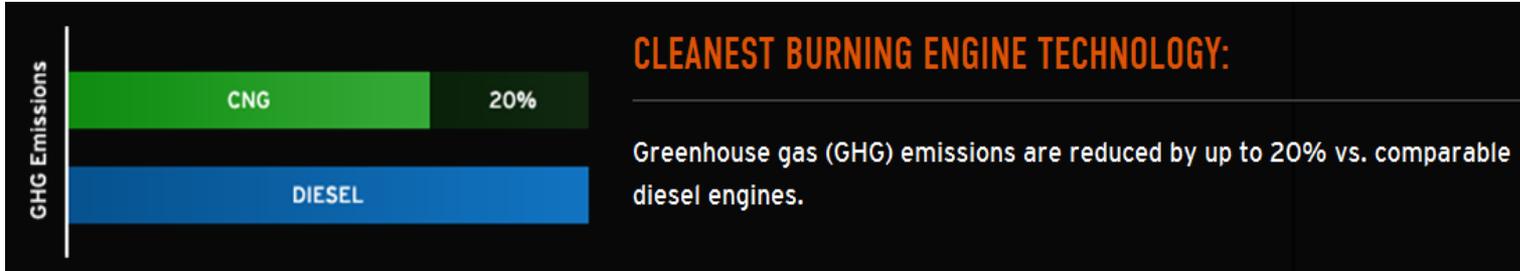
The CNG/LNG Market is changing.



Cummins and Cummins Westport developing new on-highway natural gas engines

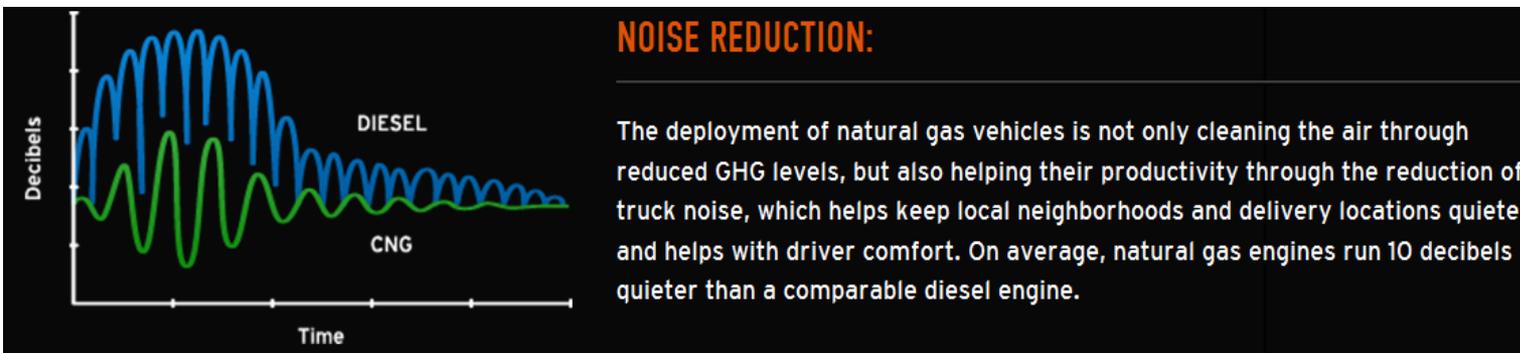


Technology is accelerating.



REDUCED AFTERTREATMENT COMPLEXITIES:

Cummins Westport's natural gas engine products—the ISL G and the all new ISX12G—feature spark-ignited cooled EGR combustion technology with a maintenance-free aftertreatment system, and a three way passive catalyst. No worries about particulate filters, regenerations or SCR equipment.



Tanks are changing...

On-highway



Tanks behind the cab, on the rail

Component – Technology is changing...



16 x 35 inch	6.8gge	\$1649
19 x 34 inch	8.0gge	\$1999
19 x 45 inch	12.0gge	\$2449
19 x 60 inch	16.8gge	\$2949
21 x 60 inch	21.0gge	\$3449

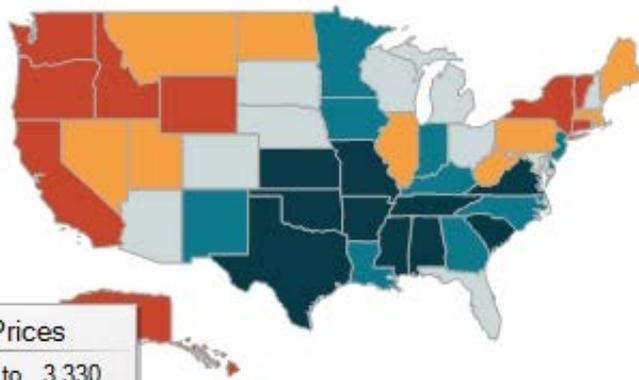
- ◆ 4 Cylinder SkyPRO Sequential CNG Kit- **\$1399**
- ◆ 6 Cylinder SkyPRO Sequential CNG Kit- **\$1449**
- ◆ 8 Cylinder SkyPRO Sequential CNG Kit- **\$1499**
- ◆ 10 Cylinder SkyTOP Sequential CNG Kit with two Reducers- **\$1999**



Conversion Kit components



The Future is changing...



Austin-San Marcos

	Regular	Mid	Premium	Diesel
Current	\$2.918	\$3.150	\$3.322	\$3.485
Yesterday	\$2.928	\$3.160	\$3.324	\$3.499
Week Ago	\$3.010	\$3.229	\$3.398	\$3.537
Year Ago	\$3.131	\$3.326	\$3.502	\$3.699
Month Ago	\$3.154	\$3.366	\$3.531	\$3.611

Highest Recorded Average Price

	Price	Date
Regular Unl.	\$3.975	7/17/2008
DSL.	\$4.770	7/18/2008



**In the state of Texas there was
over \$80,000,000
allocated to multiple agency's for
use in emission reduction grants.**

**A bunch has been utilized for natural
gas vehicles and infrastructure.**

Get your piece.

Sum it up: Embrace the change ahead?

- Educate
 - Ourselves & Others
- Embrace
 - Natural Gas as fuel of the future
- Empower
 - Ourselves & Others



Natural Gas Fuel for the future!

Thank You for your time!

SWN
Southwestern Energy®



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Southwestern Energy®

$\frac{R^2}{A} \rightarrow V^+$