The Disturbing Truth About natural Gas and NJ

rethink energy now nj

www.RethinkEnergyNJ.org

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Campaign Mission

We empower New Jersey citizens by informing them about the **need for a swift transition to clean, efficient and renewable energy, with reduced reliance on fossil fuels and pipelines** that threaten our preserved lands, water, environment, public health and communities. We **promote environmentally sound planning and siting for renewable energy infrastructure**.

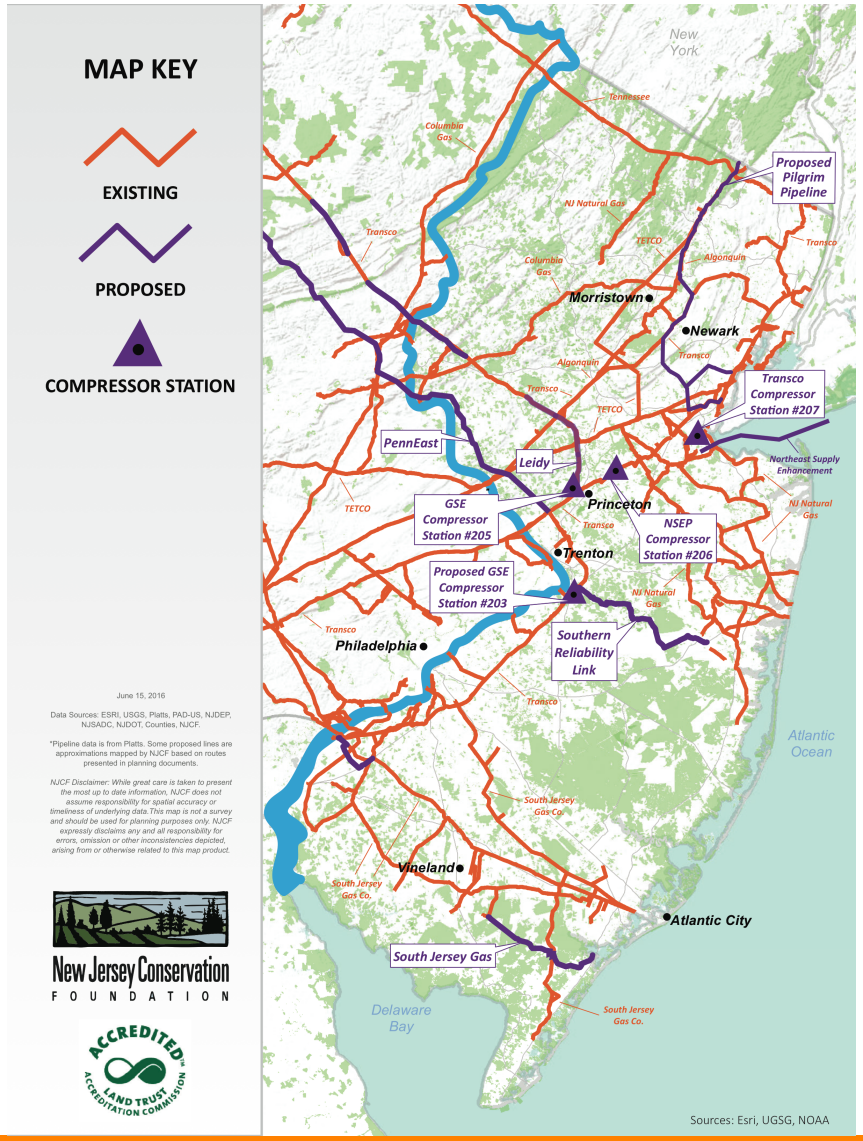
New Jersey Conservation Foundation

Stony Brook Millstone Watershed Association

Pinelands Preservation Alliance

Pipeline Overdevelopment

Pipelines Existing and Proposed



- New Jersey has **five major interstate pipelines** and **1,500 miles of pipelines** crisscrossing the state.
- Research analysis of gas flows and contracts reveal no justifiable need for new pipelines
- 63% of natural gas that came into state in 2014 was exported out of state.

What is the NSEP?

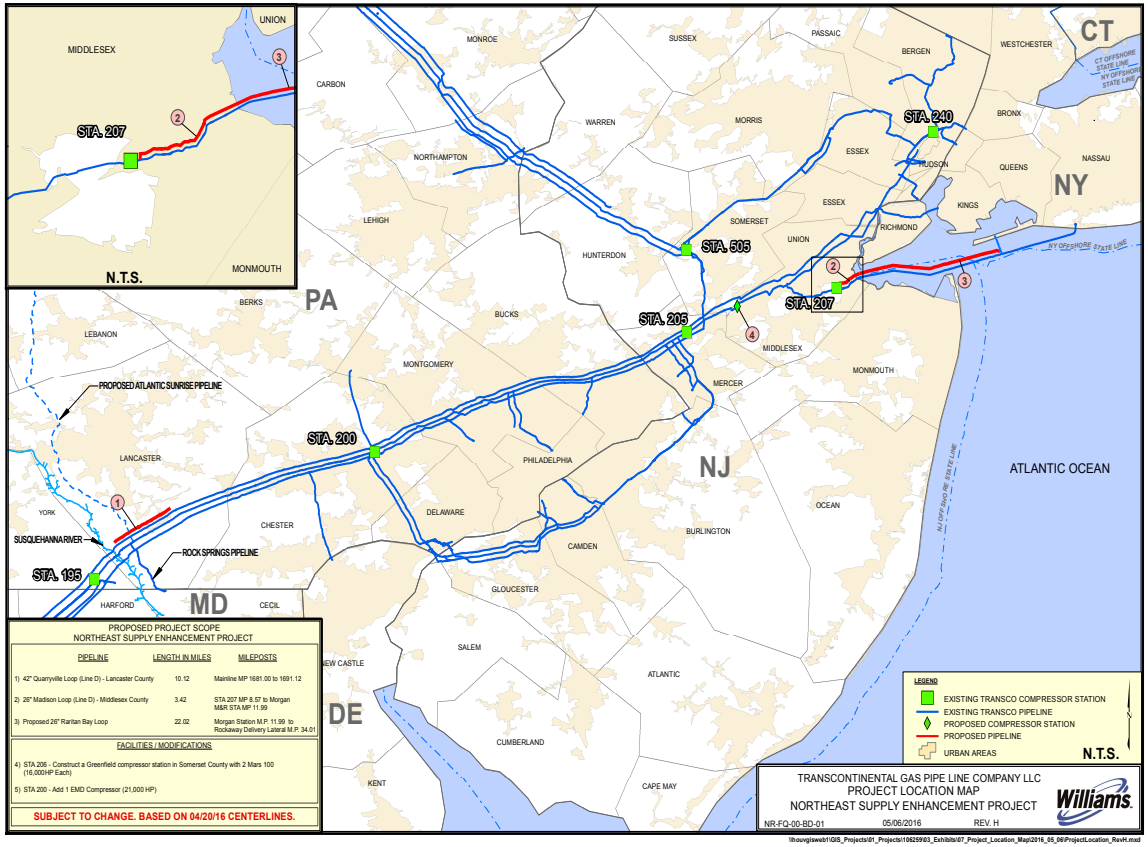
Williams Northeast Supply Enhancement Project:

- New pipeline segments in PA, NJ,
- and across the Raritan Bay

- New Gas fired Compressor Station in Franklin Township

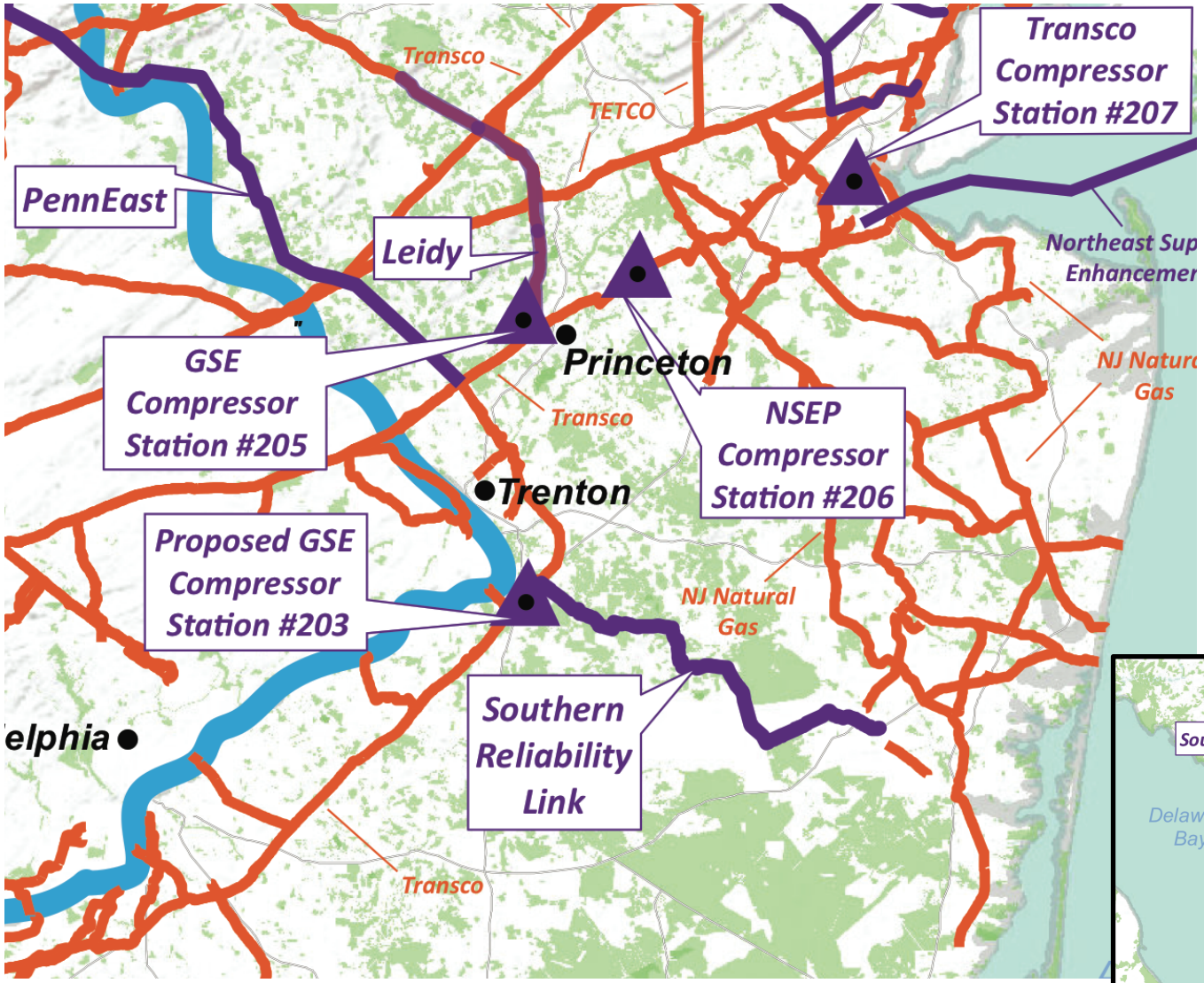
- Gas delivery solely for NYC

- No NJ benefit

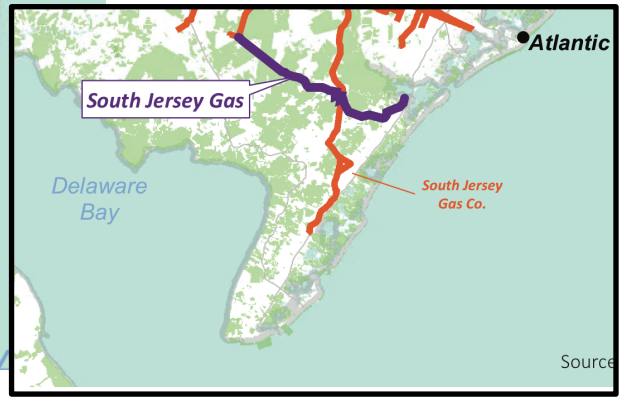


STAGE: FERC Pre-File Scoping Period Just Closed

Proliferation of Pipelines



NESE
PennEast
GSE
SRL
South Jersey Gas
&
Pilgrim Oil



This Or That?

Compressor Station Releases

Causes

Blowdowns - Up to 60m {~200ft}

- Scheduled
- Accidental – e.g., valve escapes

Fugitives – Uncontrolled or under-controlled release

- Equipment leaks, e.g., rotating seals
- Evaporative sources

Accidents

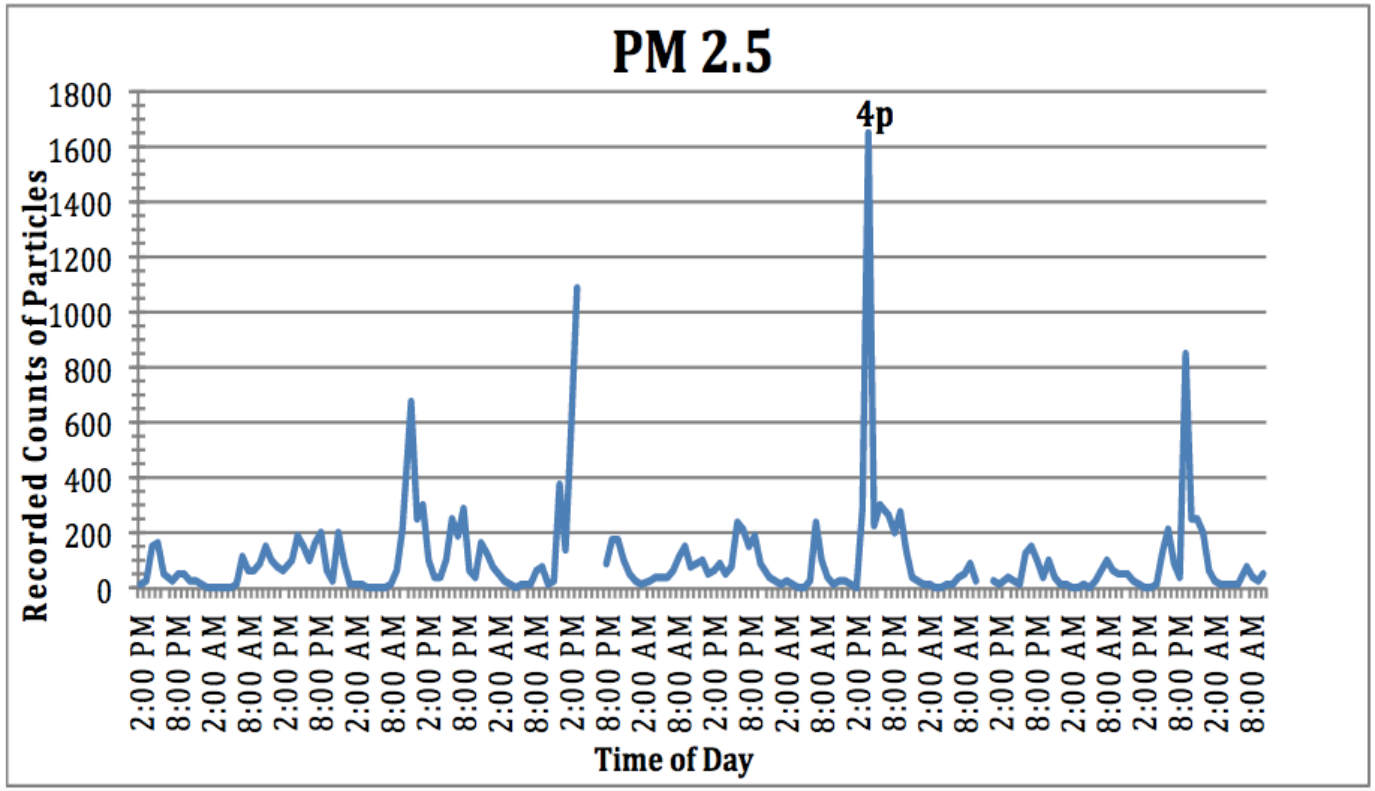
Most releases are unpredictable in time, magnitude and impact

EPA measurement protocols dilute emissions measure in time and space

They do not account for local or short-term releases

SWPA-EHP / EPA Macey et al 2014

Peak Exposures V. Averaging



"The problem with 24-hour averaging and the averaging over the four-month study period is that short-term peak levels are often more dangerous, and it is these high levels that are lost in averaging."

NESE would be built in a area that is already ozone compromised

Southwest Pennsylvania Environmental Health Project Technical Reports April 2016

Risks to Our Health & Safety

The facts about gas pipelines and Compressor Stations

NATURAL GAS IS A DIRTY FOSSIL FUEL
In 2014, natural gas-fired electric generation plants in New Jersey emitted 15 million of tons of CO_2 (an increase of 17%).

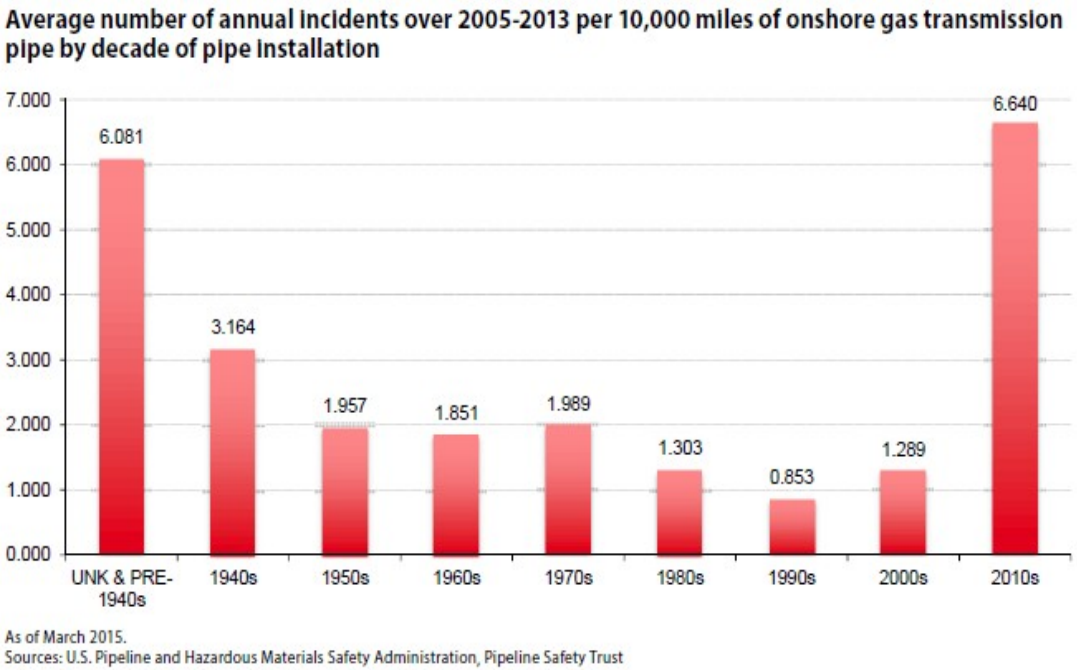
Gas pipeline accidents are at record levels and members of the public are usually the first ones to identify pipeline leaks and accidents.

*Provided by PHMSA Department of Transportation "Pipeline Facts'

Compressor stations regularly emit:
Toxic VOCs, Fine Particulates, and radioactive materials
Many are known carcinogens that result in disease such as respiratory conditions, cancer, and cardiovascular conditions.

Gas Pipeline Incidents Spike

"We're trying to put so many new miles of pipeline in the ground so fast that **people aren't doing construction … the way they ought to,"** - Carl Weimer, Director of the Pipeline Safety Trust



New Pipelines Failing MOST

As U.S. rushes to build gas lines, **failure rate of new pipes has spiked**.

- Sarah Smith, SNL Financial -- 9/9/15

RISK INDEX OF GAS PIPELINES
2010-2014

Number of individuals who were injured in gas pipeline incidents: **272**

Number of individuals who were evacuated in gas pipeline incidents: 10,620

Percent of gas pipeline incidents reported with fatalities: **7.3%**

Percent of gas pipeline incidents reported on private property: **50.9%**

Percent of incidents reported on operator-owned property: **2.1%**

Percent of incidents where gas ignited: 61.8%

Percent of incidents with gas explosions: 25%

Percent of incidents reported that were from unintentional release of gas : 83%

Total cost of all gas pipeline incidents (nominal dollars): $**163,594,674**

Total amount operators paid for costs of pipeline incidents : $**91,100,000**

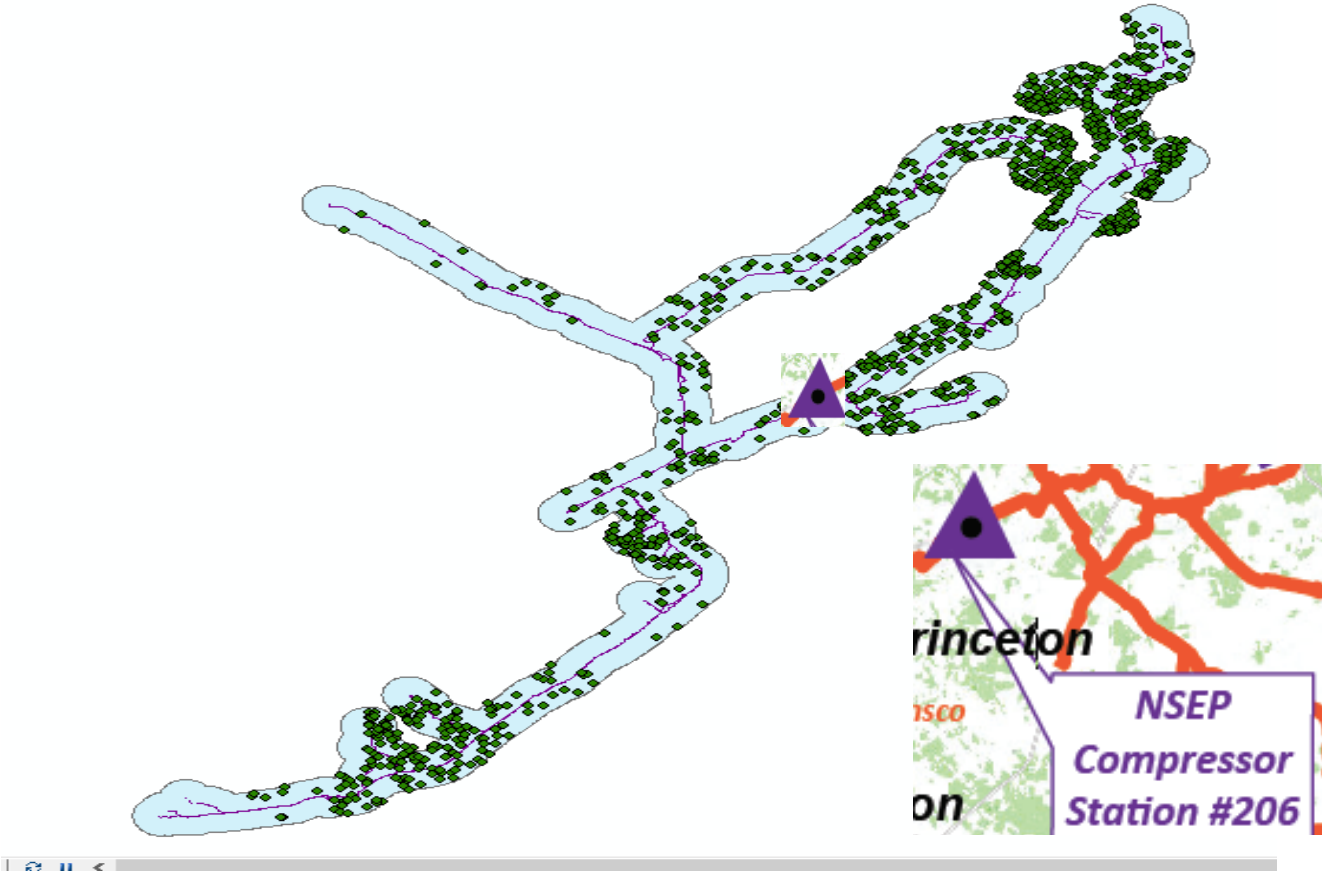
Amount per dollar paid by industry to cover costs of pipeline incidents: $0.56

Source: PHMSA Incident Reports-2010-2014

School Safety

Schools near Transco transmissions lines and compressor stations

A Section of Transco Line in New Jersey and schools within 2 miles



Position of Compressor station not exact

Schools Near NESE

Name	Community	Dist. from NSEP (in mi.)
Chittick Elementary School	East Brunswick	0.05
Memorial Elementary School	East Brunswick	0.08
Irwin Elementary School	East Brunswick	0.10
Solomon Schechter Day School	East Brunswick	0.28
Woodrow Wilson Elementary School	New Brunswick	0.05
Constable Elementary School	Kendall Park	0.10
Cambridge Elementary School	Kendall Park	0.31
World 4 Kids School	Franklin Park	.91
Franklin Park School	Franklin Park	1.31
Montgomery Upper Middle School	Skillman	0.34
Village Elementary School	Skillman	0.38
Branchburg Central Middle School	Somerville	0.55
Stony Brook School	Somerville	.19
Islamic Society of Central Jersey	South Brunswick	1.5
Learning Experience Pre-school	Princeton	0.39

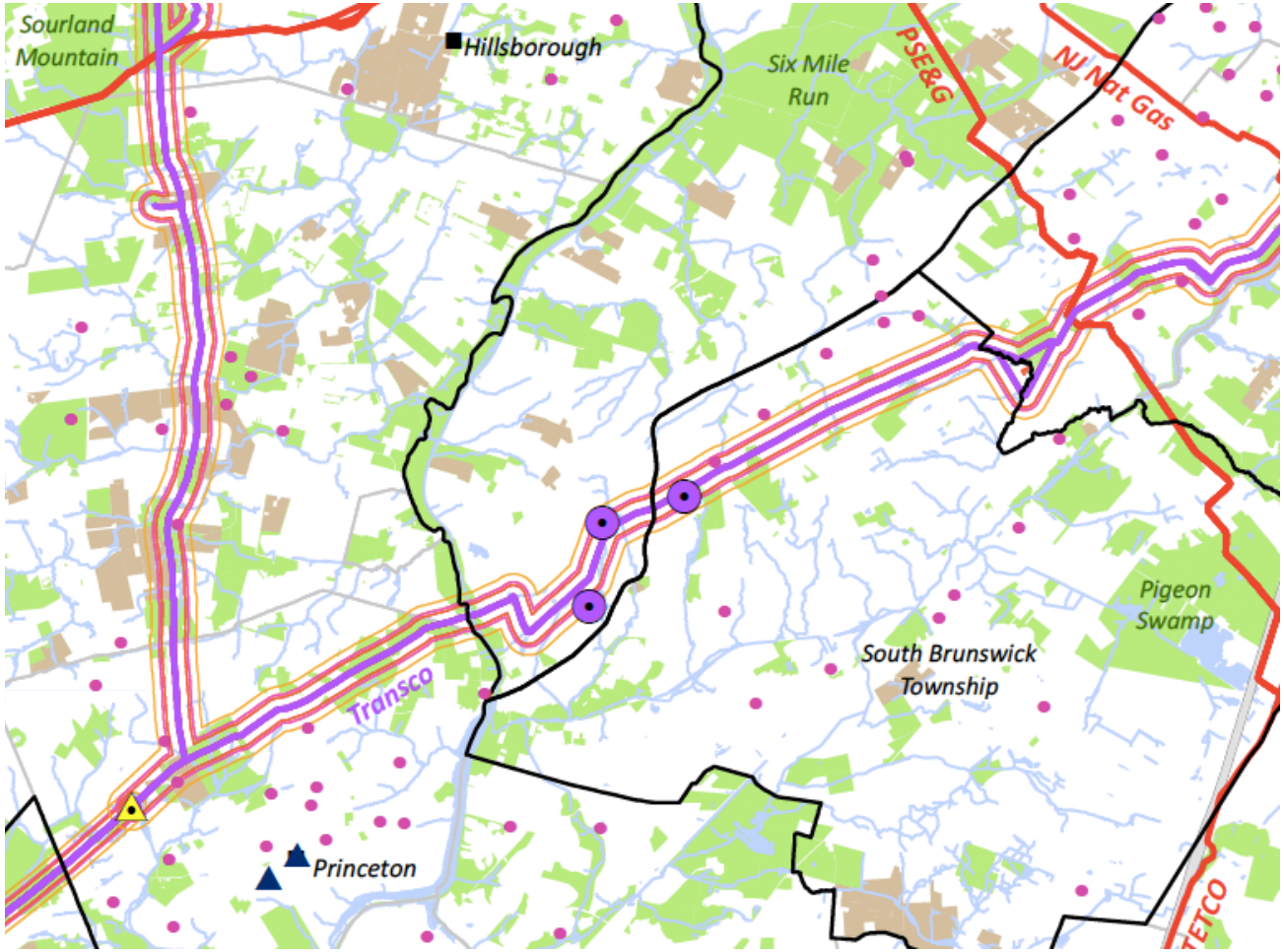
Pipeline Safety Risks

Potential Impact Radius Of NESE

50% mortality in 30 seconds 643 ft – **first line**

PIR 50% mortality at 60 seconds 814 ft - **second line**

Blister burns in 40 seconds 1288 ft – **third line**



Does Faster Gas Increase Risk?

Could faster gas flow have contributed to Westmoreland pipeline blast?

- Shortly after the explosion, PHMSA identified two areas of accelerated exterior pipeline corrosion related to flaws in the coating material applied to pipe welds.
- IN 2014 FERC approved the compressor upgrades from 46,400 to 71,900 horsepower **without requiring Texas Eastern to provide the public with gas flow velocity data.**
- There are **no federal regulations** limiting gas flow velocity – Should there should be?

Williams on their GSE application:
Design and flow data?
"Privileged"

POWERSOURCE
ENERGY NEWS. IN CONTEXT.
Pittsburgh Post-Gazette

'Class Location' Safety Rules

Federal Regulations of Pipelines least safe

NEW JERSEY SAFETY STANDARDS HIGHER THAN FEDERAL

All natural gas pipelines constructed in New Jersey after March 2, 2009, shall meet the design standards for a Class 4 pipeline location, as set forth in 49 CFR 192.5, 192.609 and 192.611."

***INTER*STATE PIPELINES ARE EXEMPT**

AND… Sometimes IN-State pipelines choose to be as well!
Aka – 2 Pinelands Pipelines

§ 14:7-1.3 Classification of pipeline locations

NESE – All Risk No Benefit

How Safe is the Safety Net?

- **Poor Oversight &Transparency**

❖ 135 mandated PHMSA inspectors for 2,147,113 miles

❖ "Far too much regulatory control in the hands of operators"

- **Unanswered Questions**

❖ % Vintage welds

❖ physical limits of the existing Transco system in NJ MAOP & velocity

❖ Maintenance reports

Real Solution: Lower demand – short & long term

- Increased Renewables

NJ needs Sound Renewable Energy Policy

- Increased Energy Efficiency

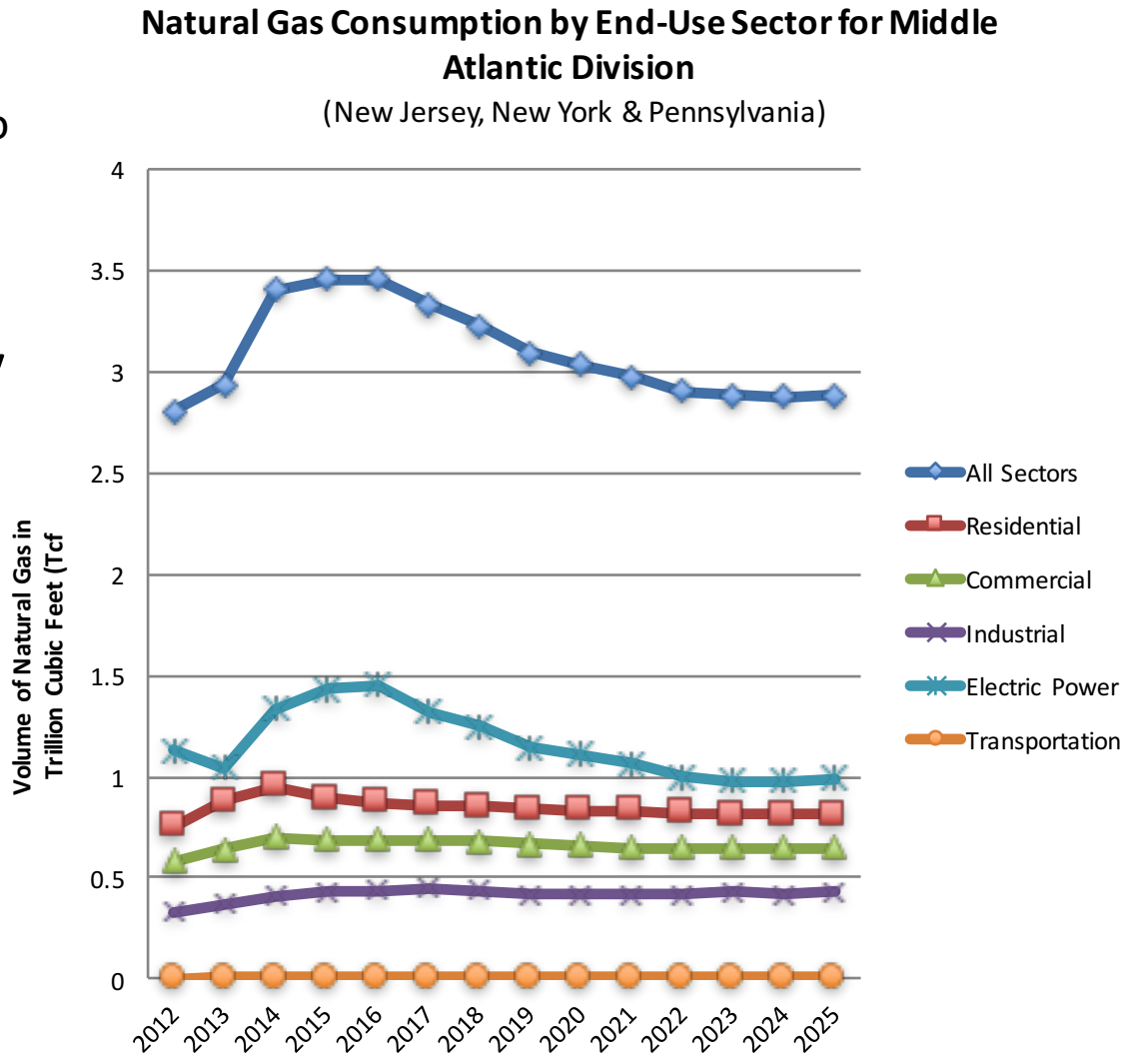
NJ EE has fallen from 8th to 24th in last 7 years

[xviii] *The 2016 State Energy Efficiency Scorecard*, September 2016, ACEEE and NRDC – April 2016 decoupling map by state, https://www.nrdc.org/experts/samantha-williams/evidence-decoupling-spurs-energy-efficiency-investment

*http://www.nytimes.com/2011/09/10/business/energy-environment/agency-struggles-to-safeguard-pipeline-system.html?_r=0&adxnnl=1&adxnnlx=1356109104-tW2WXXtNnLIJkj2cjzS3Ig

Demand for Natural Gas will Decline in Region

- Natural gas demand is projected to remain flat or decline overall until 2025 for our region *(EIA projection includes PA and NY)*
- Investments in **energy efficiency** would decrease consumption even further
- EPA estimates that consumption can decline at 1.5% each year. Other states in the Northeast are achieving 2-3% reductions each year.
- NJ is achieving about **.25 to .5% per year ***



NJ at Risk: Too Reliant on Natural Gas

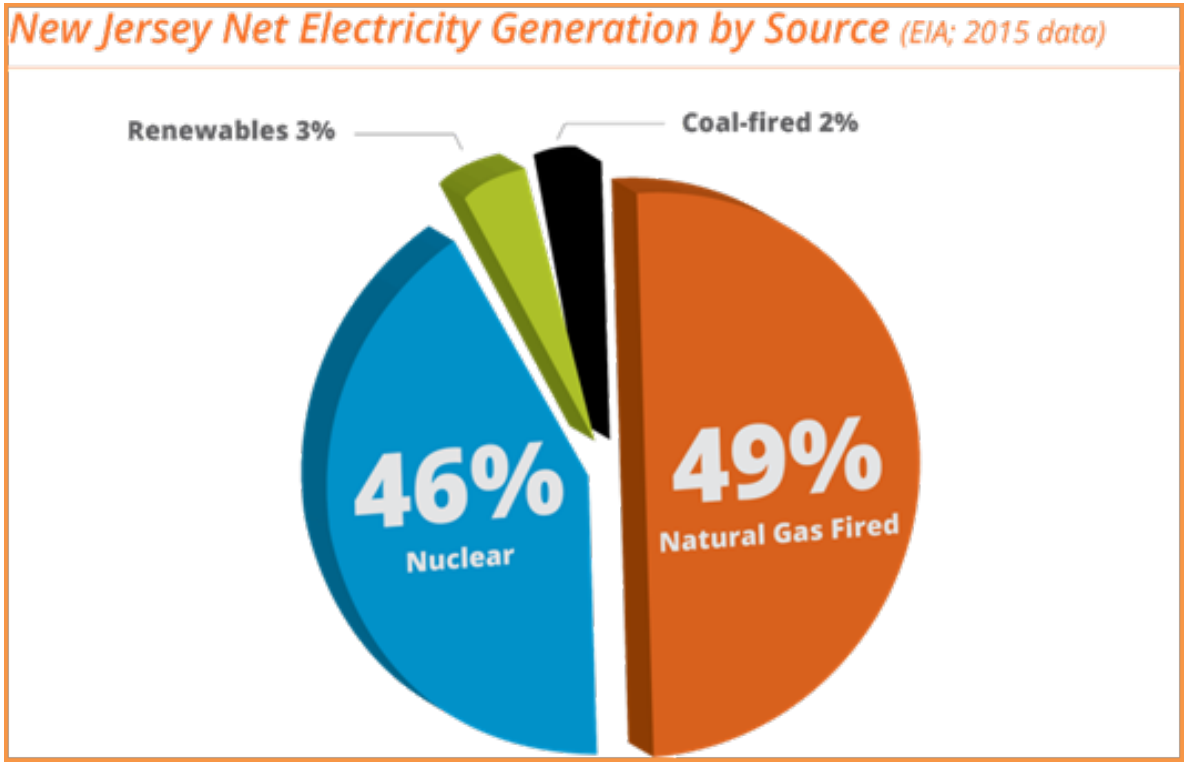
Only way to lower GHG is to lower Natural Gas

Risks to Consumers

Increased Rates And Costs

Health Safety

Climate Change

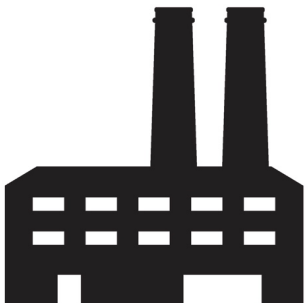


New Jersey is moving in the wrong direction

Emissions are up

+27.6%

2013 to 2015[1]



[1] Total reported emissions in New Jersey from EPA's "New Jersey direct GHG emissions of selected gases reported by sector"

NJ Emissions from Gas ⬆ 27.6% 2013-2015

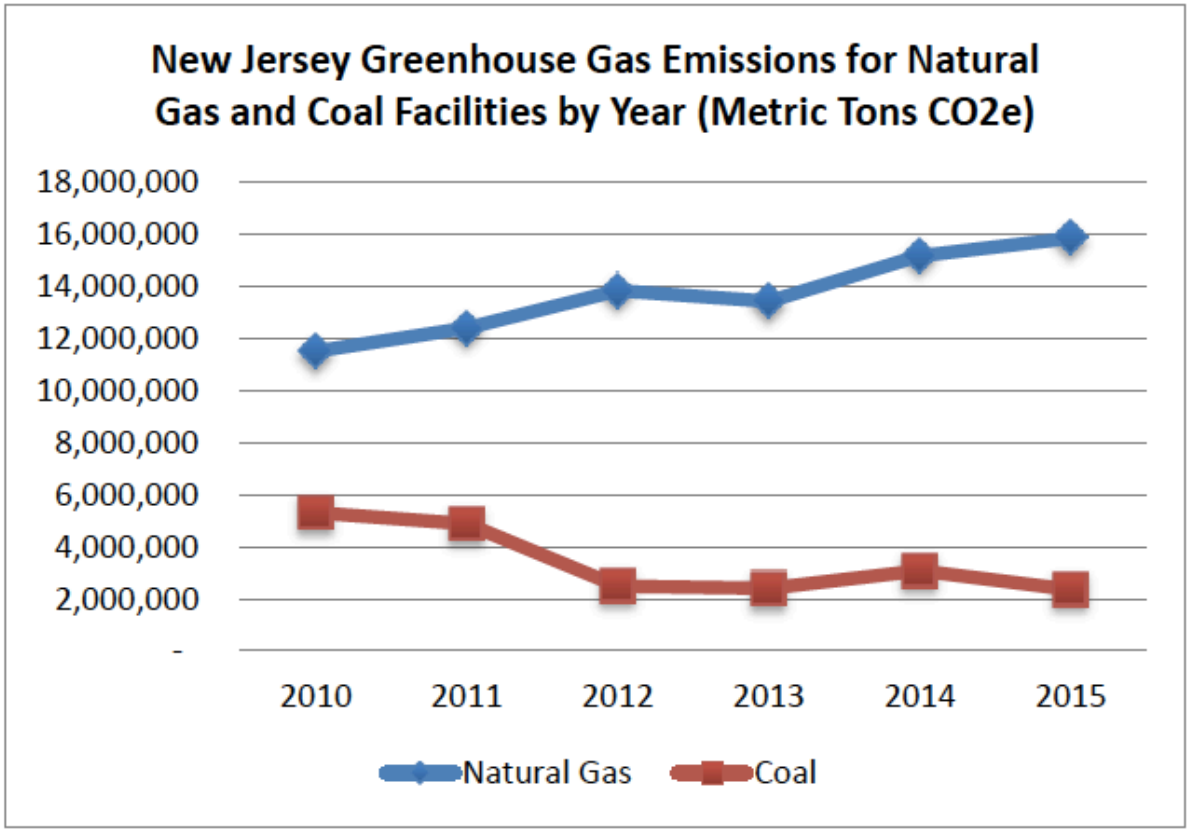


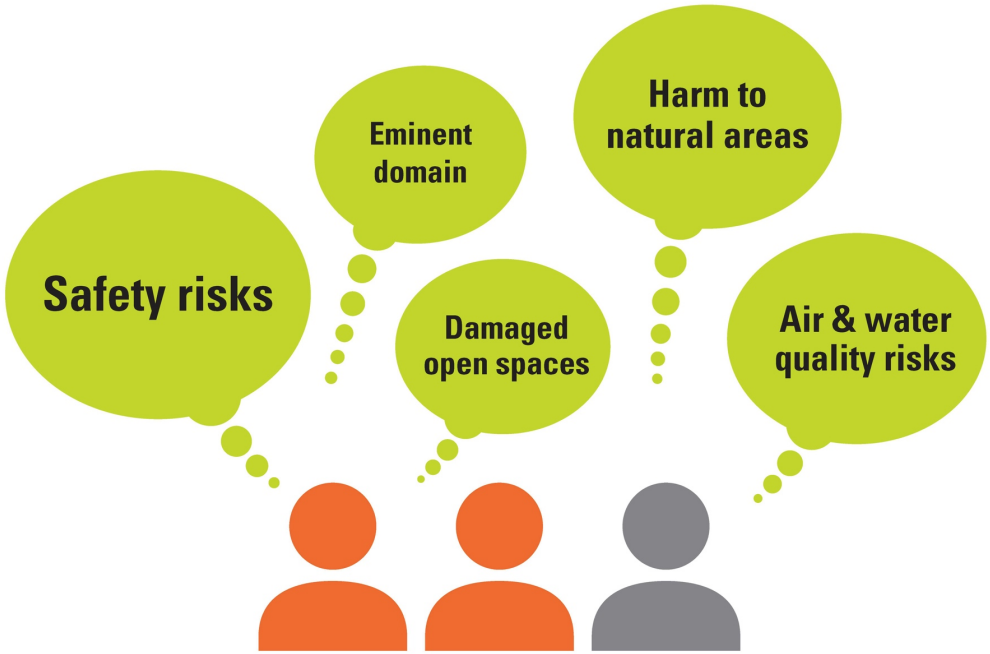
Figure 5. Emissions from natural gas-fired generation jumped in 2014 and 2015 (Source: EPA)

And…

- Methane is 84X more potent Greenhouse gas than CO2 over 20 year period
- 24X more potent over 100 year period

2016 NJ Voters Polling

2 out of 3 New Jerseyans think pipelines threaten our state

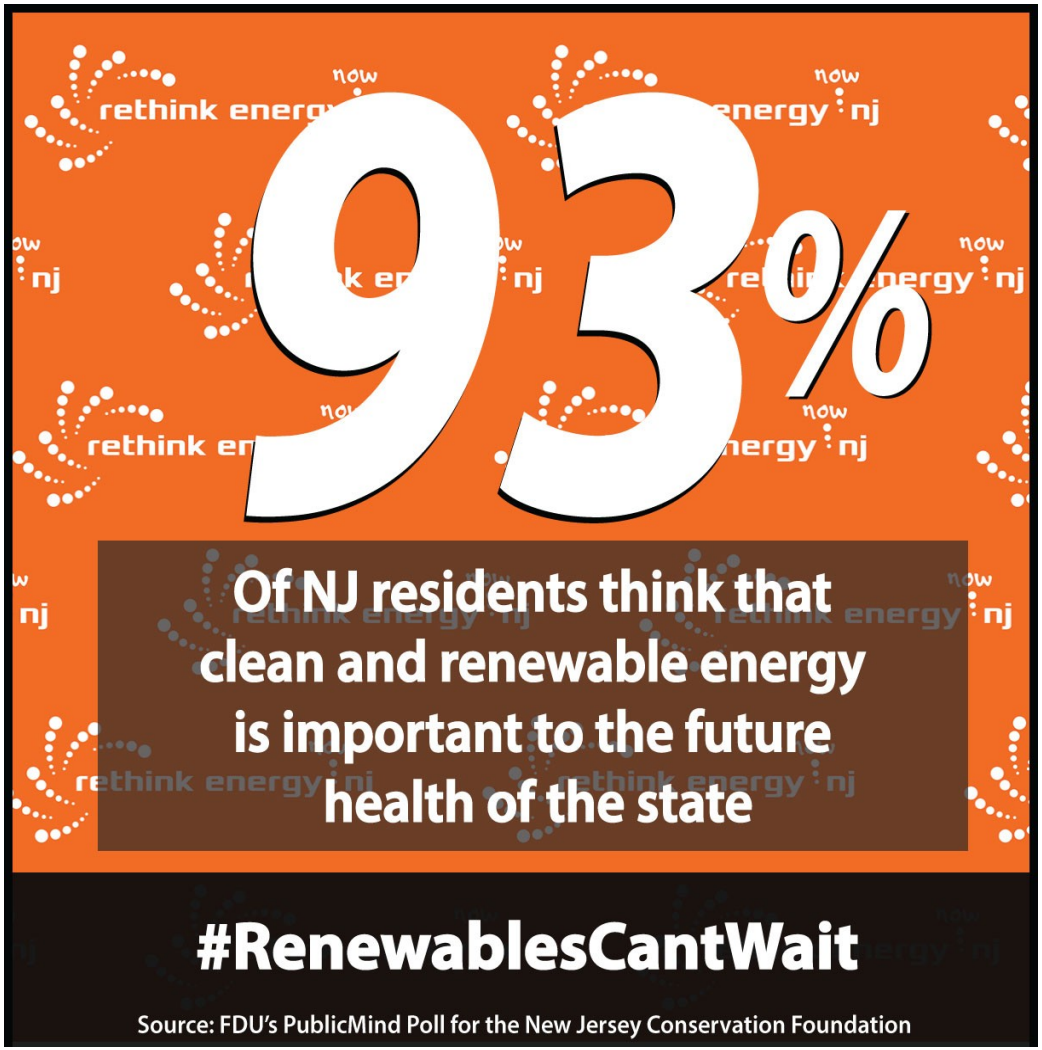


New Jerseyans want a clean energy future

2 out of 3 New Jerseyans think the state is moving too slowly toward renewable energy.

3 out of 4 New Jerseyans want higher renewable energy goals.

What NJ Residents Want



79% believe the state needs to invest in clean and renewable energy over pipelines

87% are concerned about the safety risks associated with ruptures, leaks, or explosions of pipelines

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Going Renewable Can't Wait.

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