

# Natural Gas Pipelines and New Jersey

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Patty Cronheim – ReThink Energy NJ Outreach Coordinator





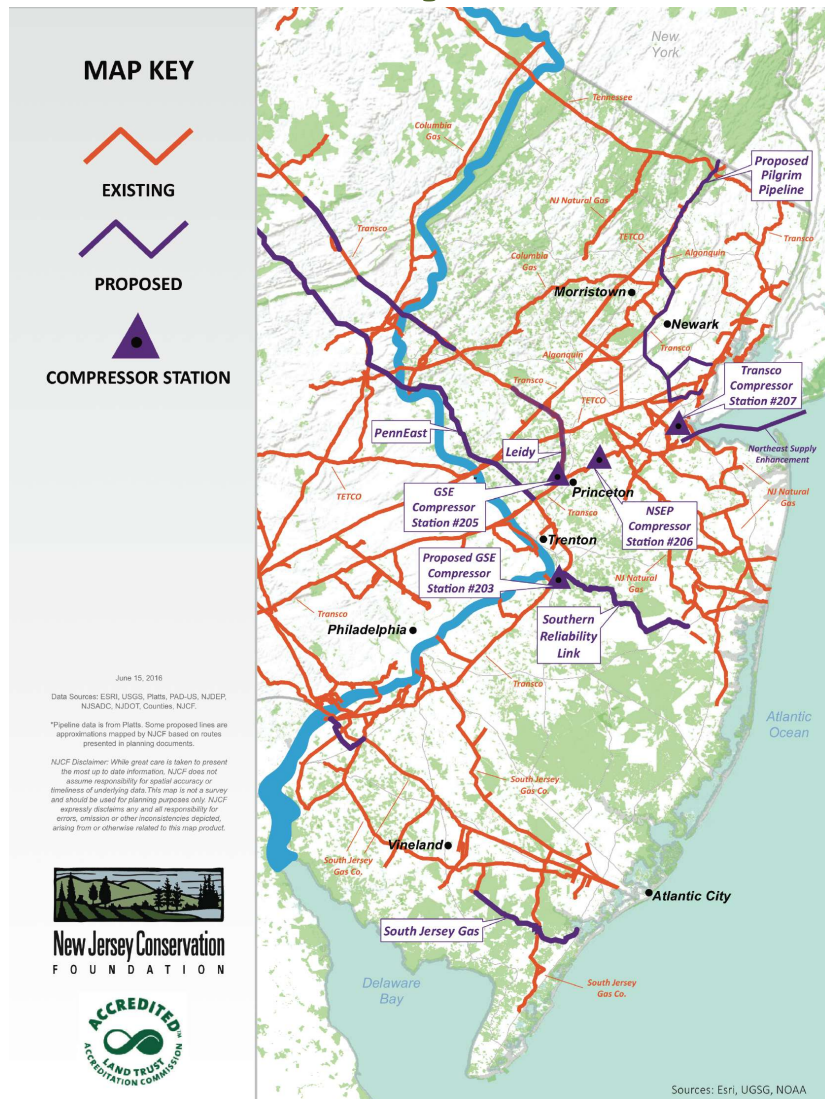
## Campaign Mission

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.**



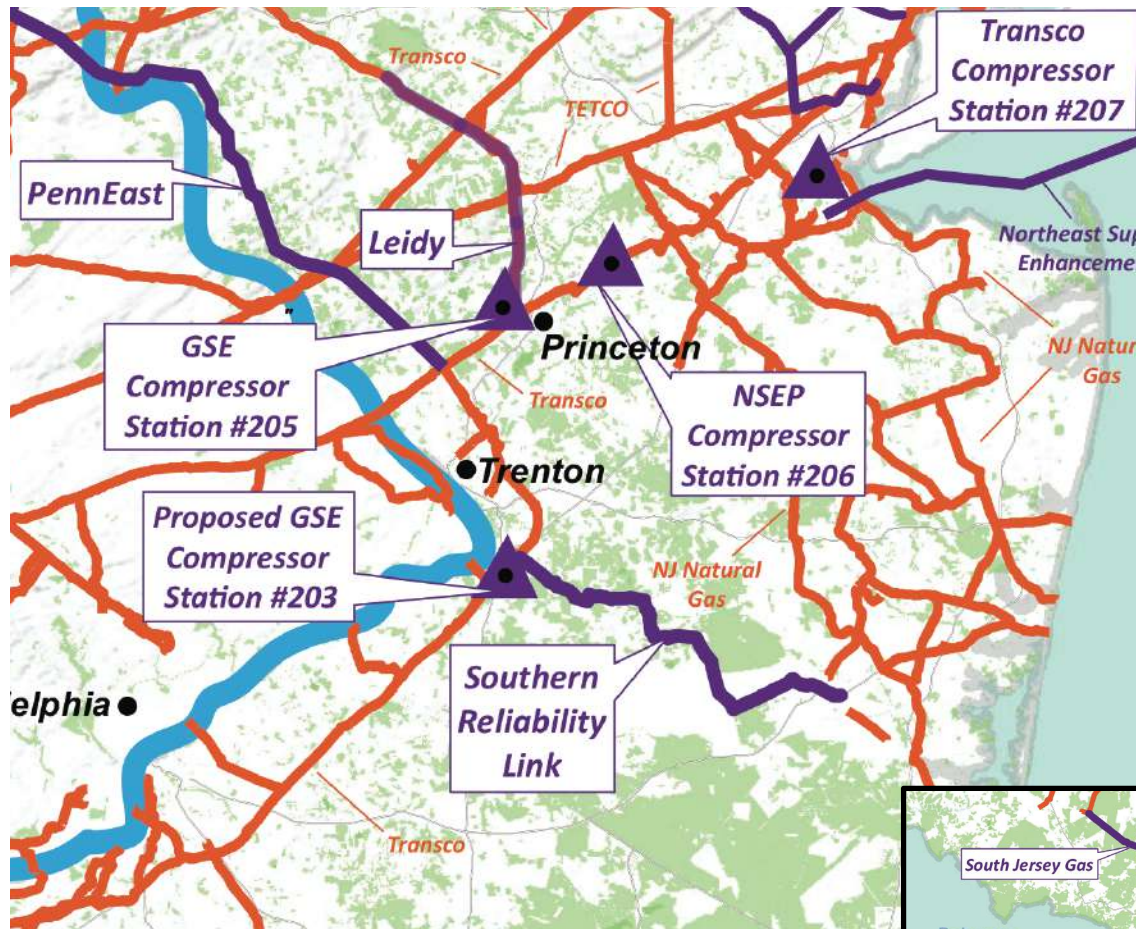
# Pipeline Overdevelopment

## Pipelines Existing and Proposed

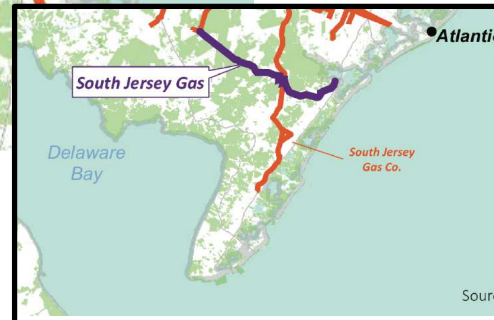


- New Jersey has **five major interstate pipelines** and **1,500 miles of pipelines**
- Research shows no **NJ** need for new pipelines
- 6 new proposed projects

# Proliferation of Proposed Pipelines



PennEast  
Garden State Expansion  
Southern Reliability Link  
South Jersey Gas  
**Northeast Supply  
Enhancement Project**  
&  
Pilgrim Oil





# ***NJ at Risk: Too Reliant on Natural Gas***

## **Risks to Consumers**

Increased  
Rates  
And Costs



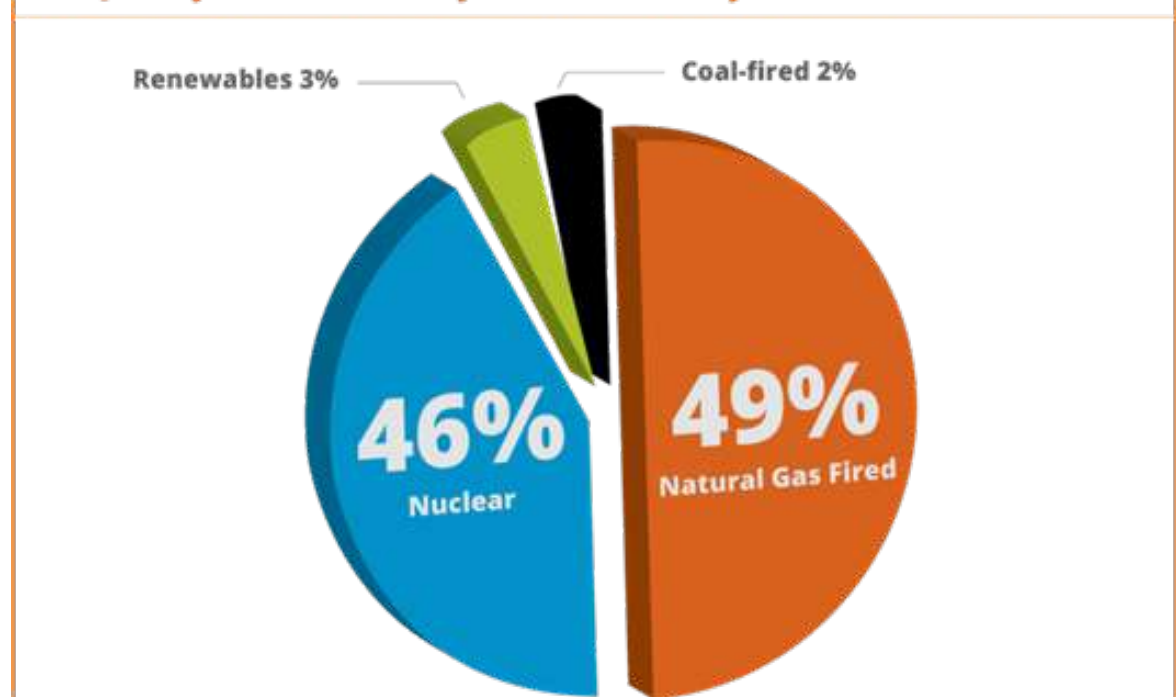
Health  
Safety



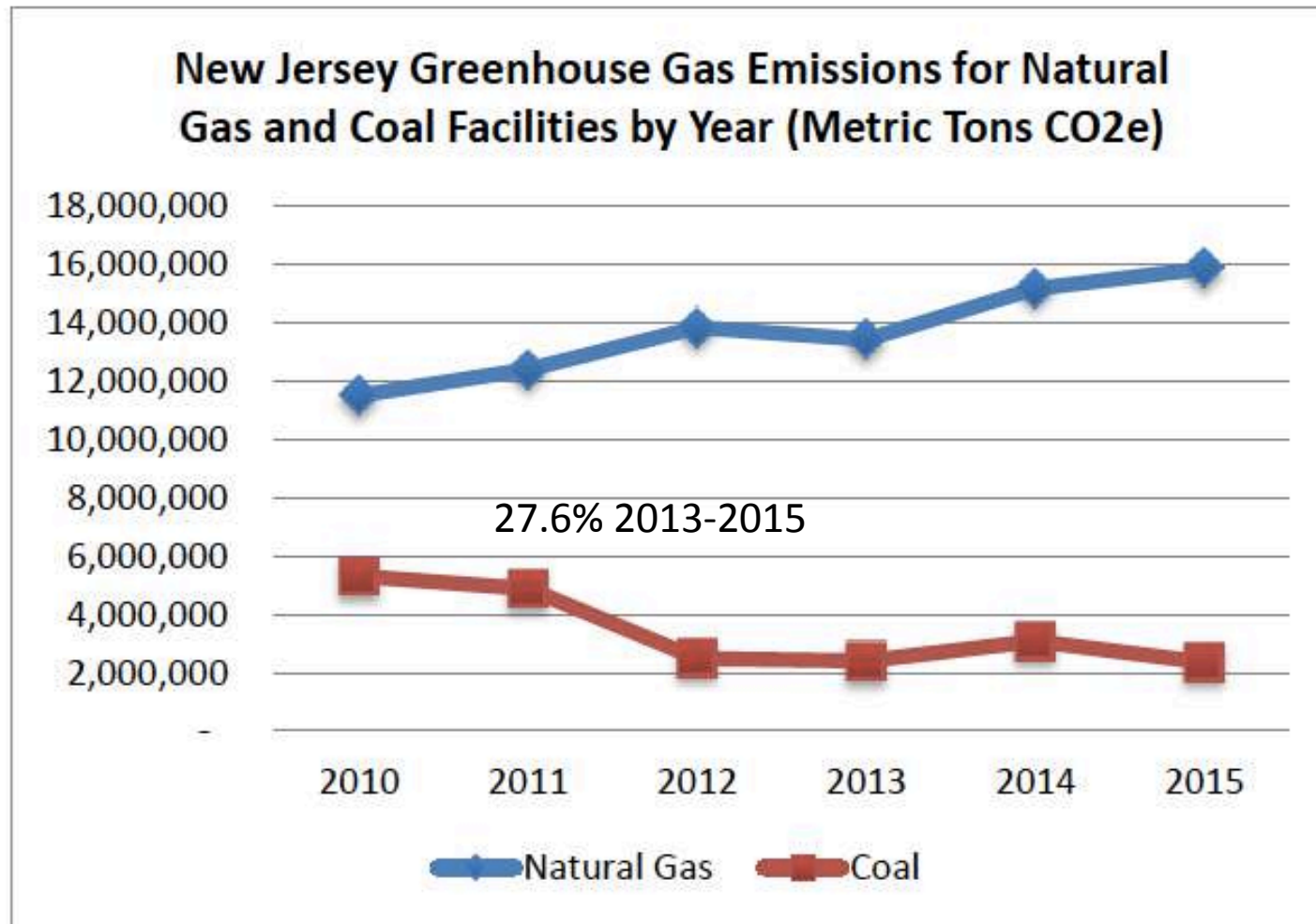
Climate  
Change



*New Jersey Net Electricity Generation by Source (EIA; 2015 data)*

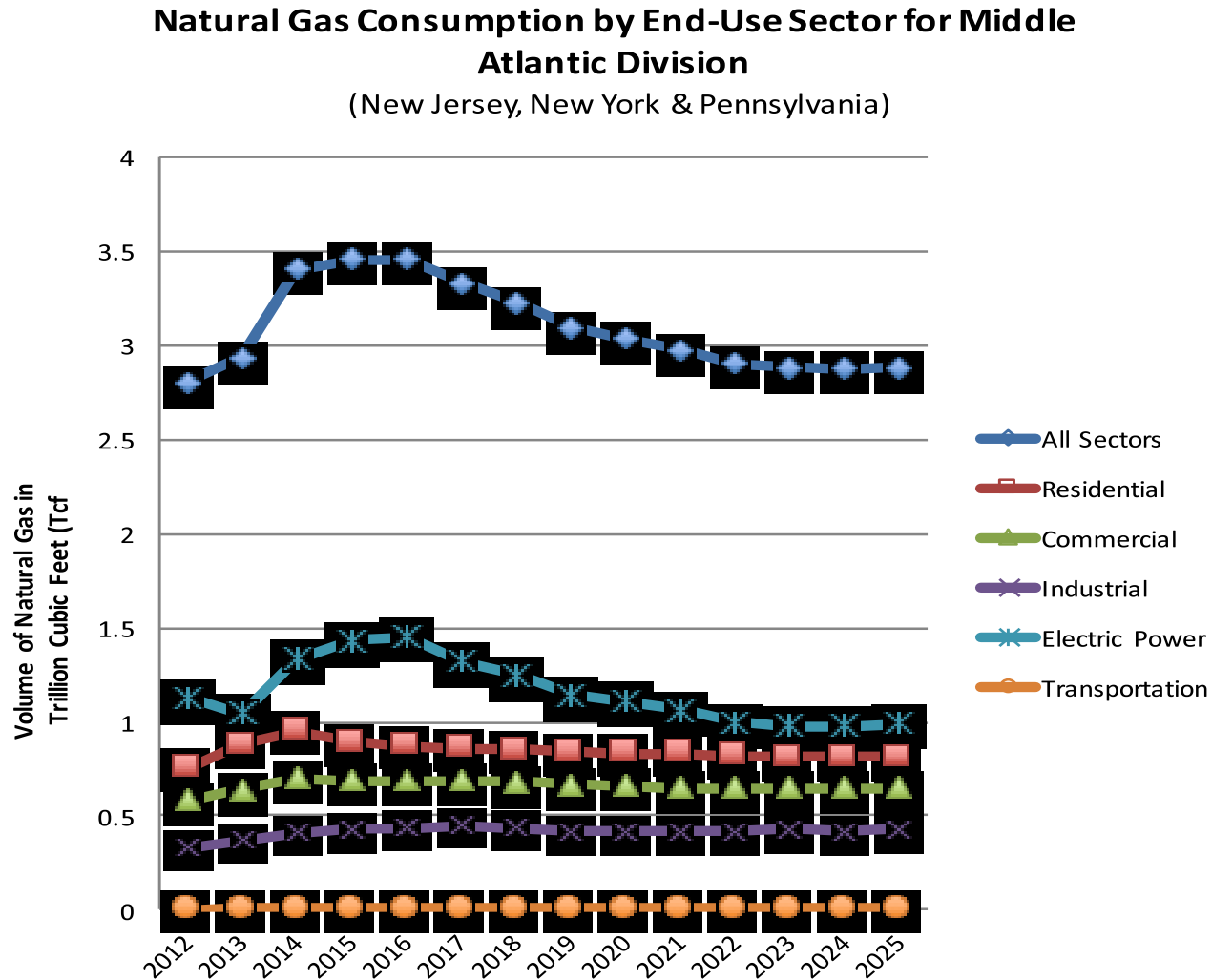


# ***NJ Gas Emissions*** **27.6%**



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

## Demand for Natural Gas will Decline in Region

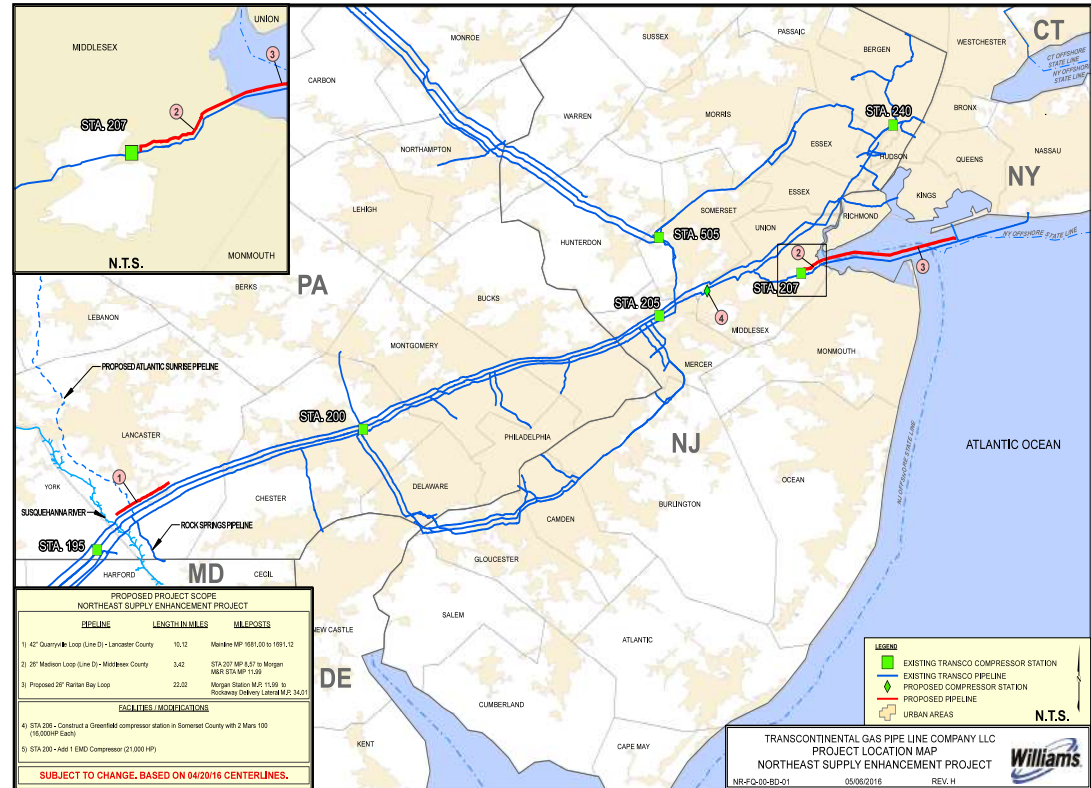


# What is the NESE?

## Williams Northeast Supply Enhancement Project:

**Docket #CP17-101-000**

- New pipeline segments in PA & NJ
- 23 miles of 26-inch pipe across the Raritan Bay (offshore)
- New Gas fired 32,000 horsepower Compressor Station in Franklin Township, NJ sent through 26,000 HP Old Bridge station #207
- Gas delivery of 400 million cu./Day to national Grid - solely for NYC
- NO NJ benefit



STAGE: FERC – Awaiting DEIS

NJDEP – Water permit applications to NJDEP have begun



# What Gets Emitted?

## Definitely

Noise

GHG

Nitrogen Oxides, Particulate  
Matter, Carbon Monoxide,  
Volatile Organic Compounds,  
Hazardous Air Pollutants  
(formaldehyde, benzene, etc)-

Radon

## Likely or possible

Mercury, (radioactive) Lead,  
Chromium

## Secondary formation

**Ozone**



## — Williams “Environmental Assessment” —

”...the expansion of Compressor Station 207, including the installation of additional blowdown facilities, **may result in additional fugitive emissions or blowdowns of transmission-quality natural gas.** Though it is **not possible to fully determine the amount of blowdowns** due to future maintenance or emergencies, an estimate of these fugitive emissions are presented below in table B-12.

Table B-12 Fugitive and Blowdown Emissions Compressor Station 207							
Source		Total Site Emissions (tons/year)					
NOx		CO	SO2	Total PM	VOC	HAPs	GHG
Fugitives and blowdowns	-	-	-	-	6.22	0.00	4,245

# *Toxic Air Pollutants, Tons/Year*

**Table 9.2-16**  
**Compressor Station 206 Emission Rates**

Source ID	NO <sub>x</sub>		CO		SO <sub>2</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
E1001	5.19	22.74	12.98	56.86	0.70	3.07	4.32	18.92	4.32	18.92
E1002	5.19	22.74	12.98	56.86	0.70	3.07	4.32	18.92	4.32	18.92

Key:

- CO = Carbon monoxide
- lb/hr = Pounds per hour
- NO<sub>x</sub> = Oxides of nitrogen
- PM<sub>10</sub> = Particulate matter less than or equal to 10 microns in diameter
- PM<sub>2.5</sub> = Particulate matter less than or equal to 2.5 microns in diameter
- SO<sub>2</sub> = Sulfur dioxide
- tpy = Tons per year

NED “Titan” + 2 Mars engines:

Equipment	Tons per Year							
	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC <sup>2</sup>	GHG <sup>3</sup>	HAPs <sup>4</sup>
<b>Total</b>	<b>66.60</b>	<b>86.17</b>	<b>25.02</b>	<b>11.96</b>	<b>11.96</b>	<b>22.42</b>	<b>215,460</b>	<b>4.20</b>

# Health is not part of review

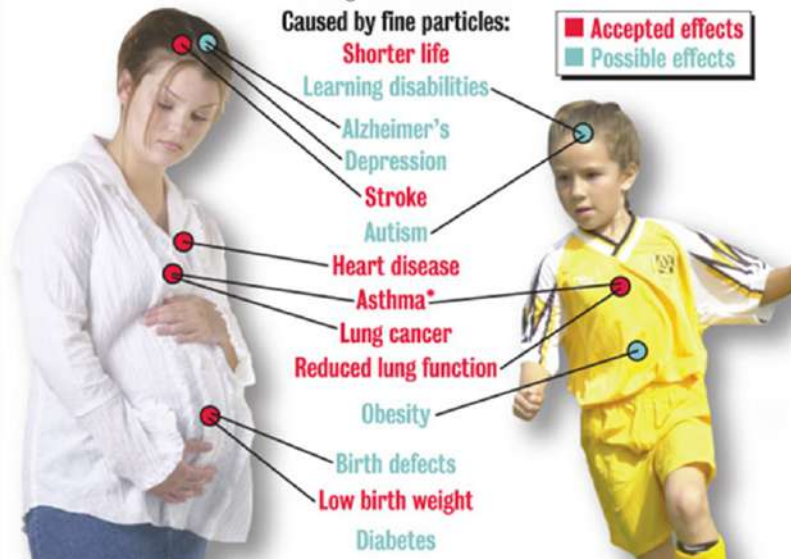


Resolution #17-002  
3/15/2017

## RESOLUTION REQUEST THE FEDERAL ENERGY REGULATORY COMMISSION TO CONDUCT A HEALTH IMPACT ASSESSMENT OF THE PROPOSED WILLIAMS TRANSCO COMPRESSOR AT TRAP ROCK QUARRY IN FRANKLIN TOWNSHIP

### POLLUTION MATTERS

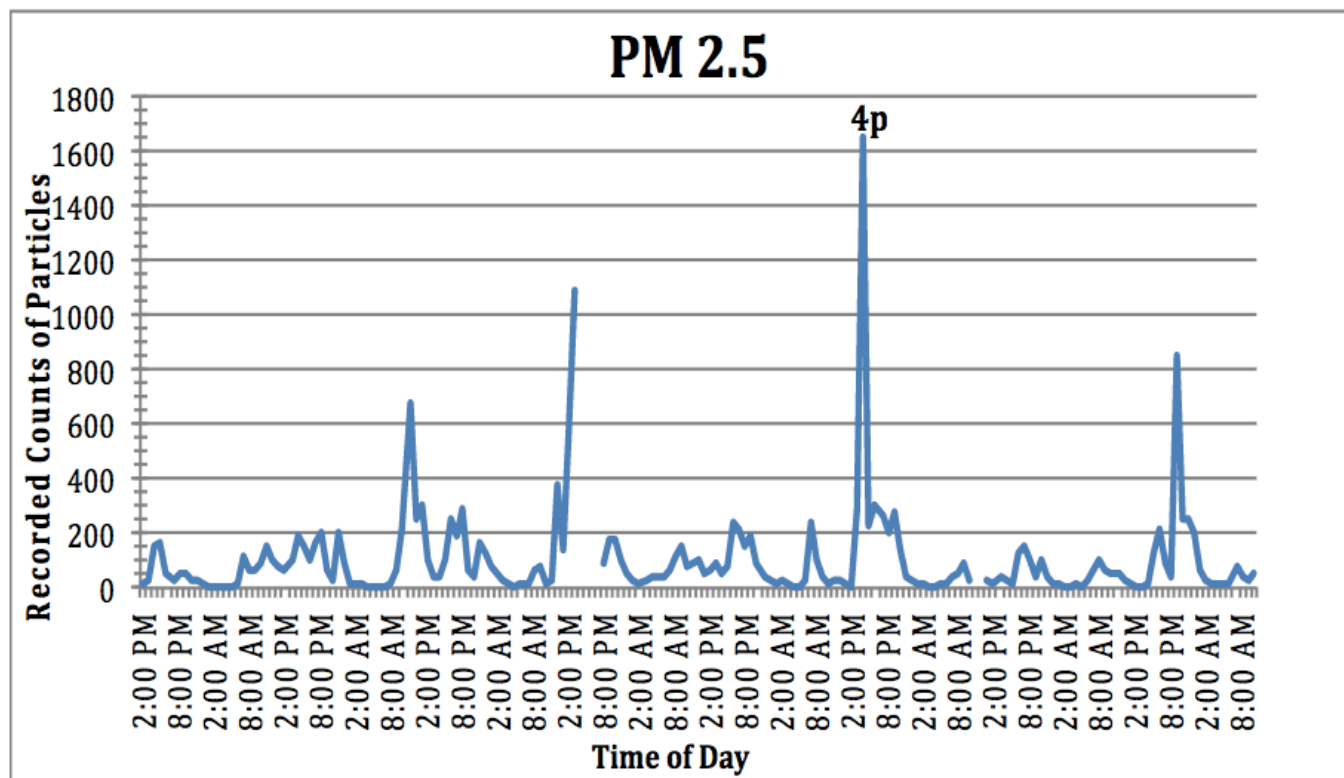
Thousands of studies have shown how air pollution can harm people, causing heart attacks, lung problems and other ailments, and shortening lives. New research is finding possible links between certain pollutants and autism, birth defects and childhood obesity, among other conditions.



Most At risk population is a  
**LARGE** group of population

- Children
- Mothers
- Older people
- Immuno-compromised

## Peak Exposures V. Averaging



### Gov't Regs Inadequate

“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

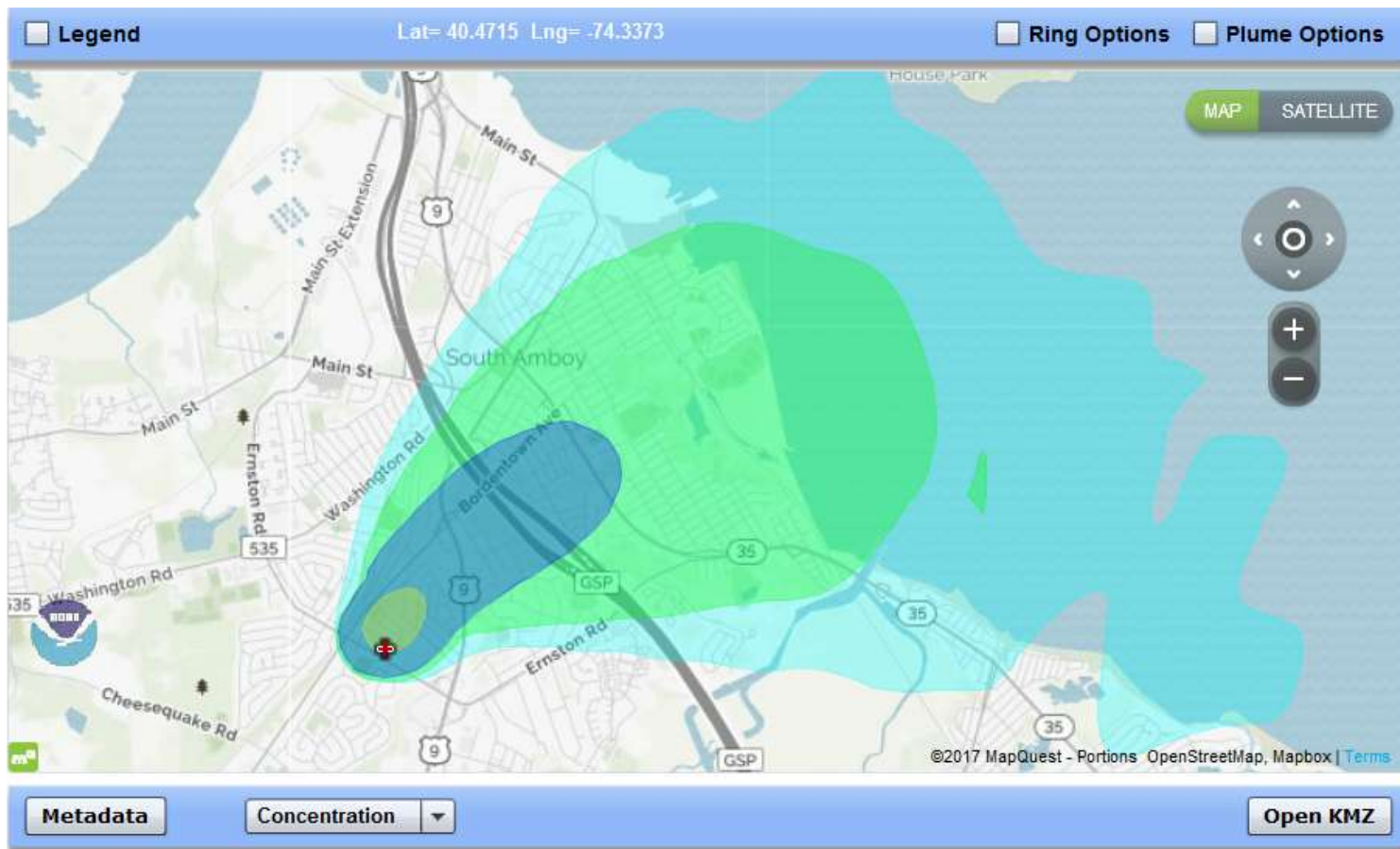




# Where does Pollution Go?

NOAA results of release set to the coordinates provided: 40.45774, -74.30246

**June 1, 2017 Noon**





**June 15, 2017, 8 AM**

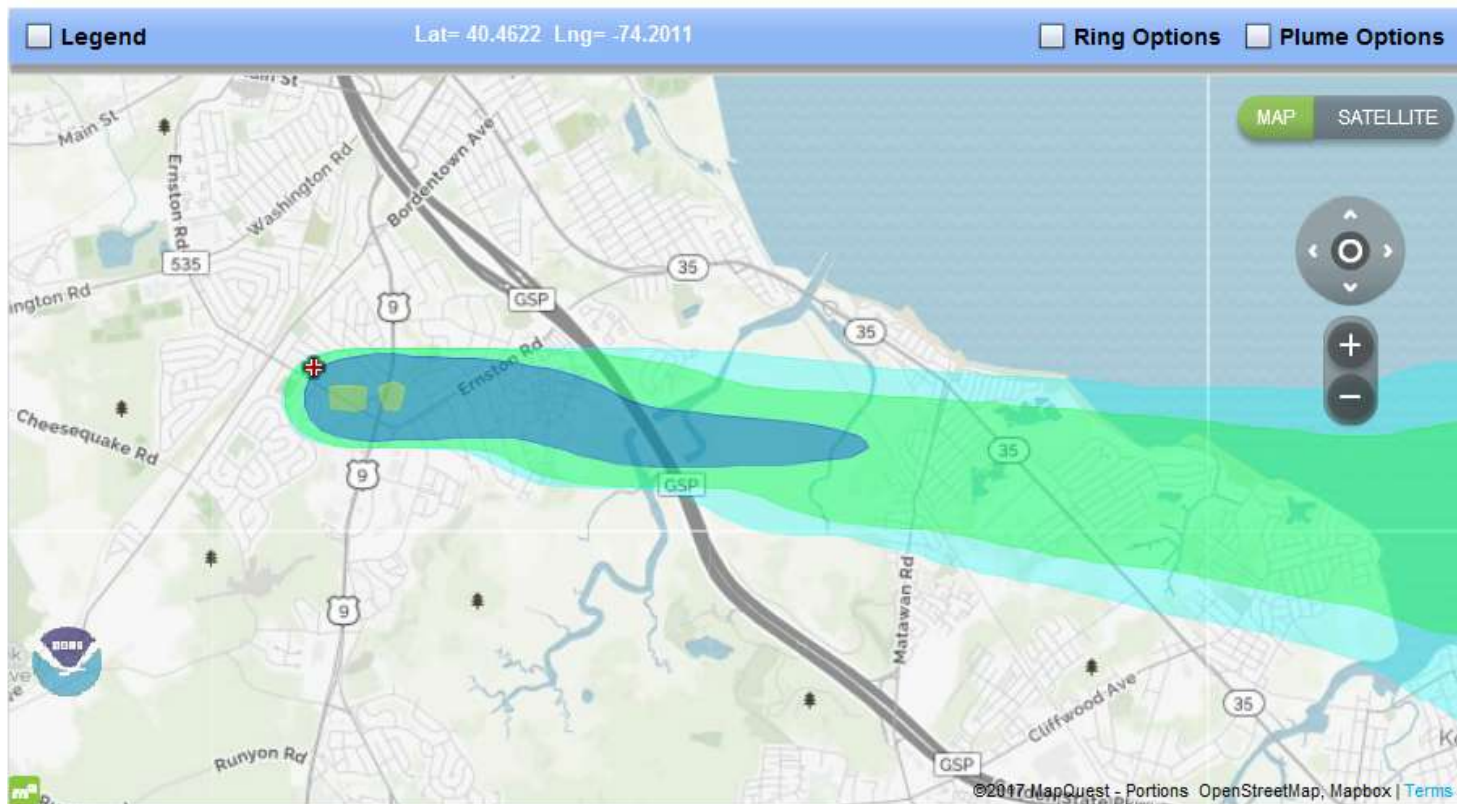




# Where does Pollution Go?

Model results (maps) show the direction that gas releases and leaks would have traveled on a given day, based upon historical weather patterns

**June 1, 2017, 8pm**



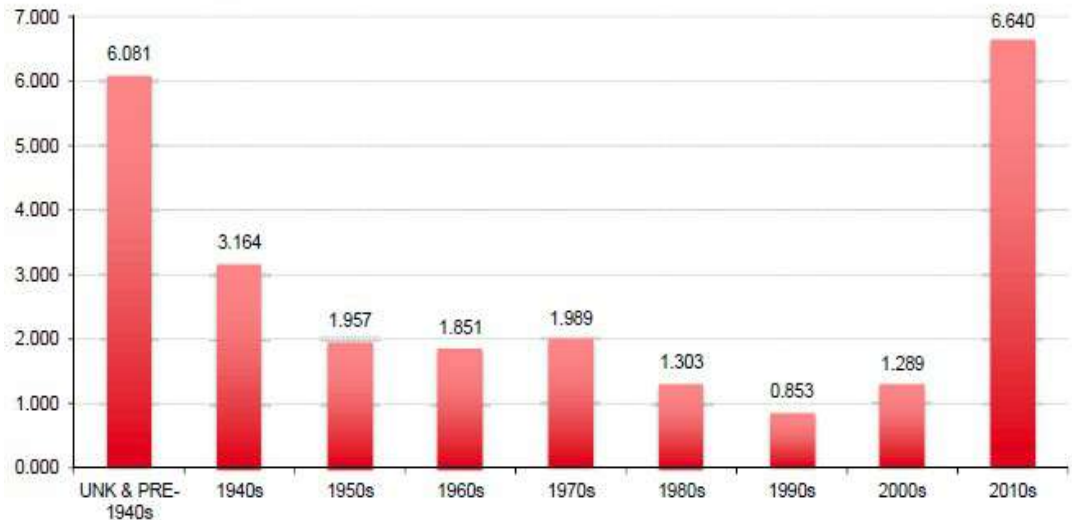


# Gas Pipeline Incidents Spike

“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



Average number of annual incidents over 2005-2013 per 10,000 miles of onshore gas transmission pipe by decade of pipe installation



As of March 2015.

Sources: U.S. Pipeline and Hazardous Materials Safety Administration, 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

# *Increased Transco Compression Risk to NJ Pipelines?*

## NEWS

### Spectra Energy says rapid corrosion, other factors led to Salem pipeline explosion



DEBRA ERDLEY | Tuesday, Sept. 13, 2016, 6:09 p.m.



“The gas is a little warmer there, given that **it is closer to the compression station.**”

“Based on research and engineering practice, we would expect to see corrosion of 2 to 3 percent a year in the worst case. **What we saw was upwards of 10-15 percent a year, or about five times** what conservative engineering estimates would be based on,”

- Andy Drake, vice president of operations for Spectra Energy

<http://triblive.com/news/adminpage/11129387-74/company-spectra-officials>



# **NESE – All Risk No Benefit for NJ**

## **How Safe is the Safety Net?**

- **Poor Oversight & Transparency**
  - ❖ 135 mandated PHMSA inspectors for > 2 MILLION miles
  - ❖ “Far too much regulatory control in the hands of operators”
- **Unanswered Transco Questions (Asked by South Brunswick and Franklin Township Committees)**
  - ❖ % Vintage welds
  - ❖ **Physical limits of the existing Transco system in NJ? What velocity?**
  - ❖ Maintenance reports – No transparency

<sup>xviii</sup> 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>

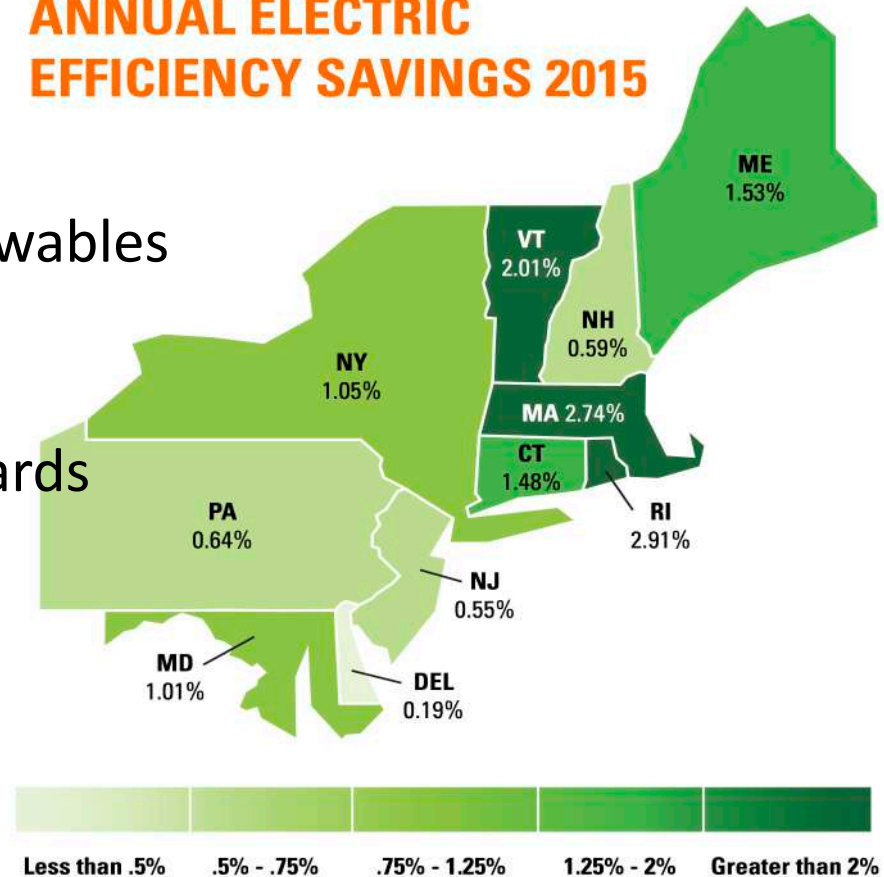
[http://www.nytimes.com/2011/09/10/business/energy-environment/agency-struggles-to-safeguard-pipeline-system.html?\\_r=0&adxnnl=1&adxnnlx=1356109104-tW2WXXtNnLUkj2cjzS3lg](http://www.nytimes.com/2011/09/10/business/energy-environment/agency-struggles-to-safeguard-pipeline-system.html?_r=0&adxnnl=1&adxnnlx=1356109104-tW2WXXtNnLUkj2cjzS3lg)

# A Better Way

## Lower demand & Increase Renewables

- Clean Energy Master Plan
- Energy Efficiency and Renewables
- Utility Incentives
- Rejoin RGGI – With Safeguards
- Offshore wind
- Utility solar

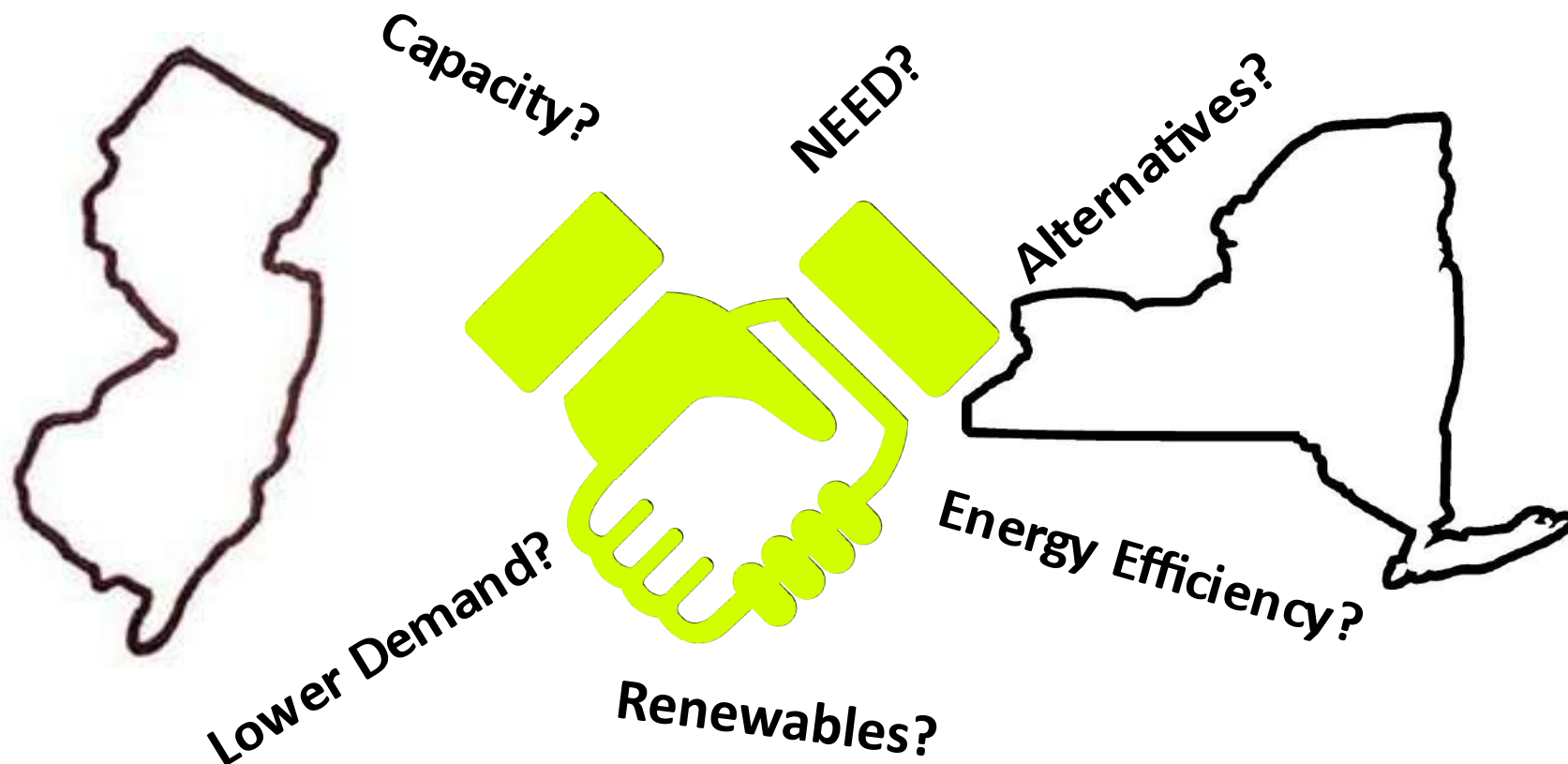
### ANNUAL ELECTRIC EFFICIENCY SAVINGS 2015



# ***Solutions = Good Relationships***

## **Asking the Essential Questions!**

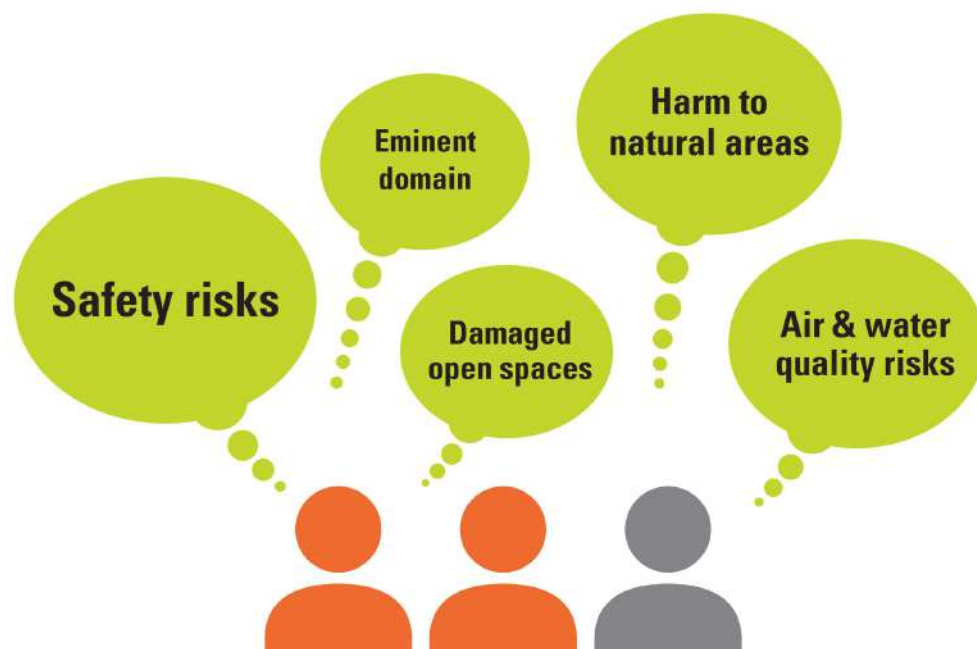
Is a pipeline really needed to address the problem?  
What other alternatives exist?



# What NJ Wants Now

2016 NJ Voters Polling

**2 out of 3 New Jerseyans think pipelines threaten our state**



**New Jerseyans want a clean energy future**

*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.*





*Going Renewable Can't Wait.*

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