

Presentation to Transportation and Climate Initiative Technical Workshop

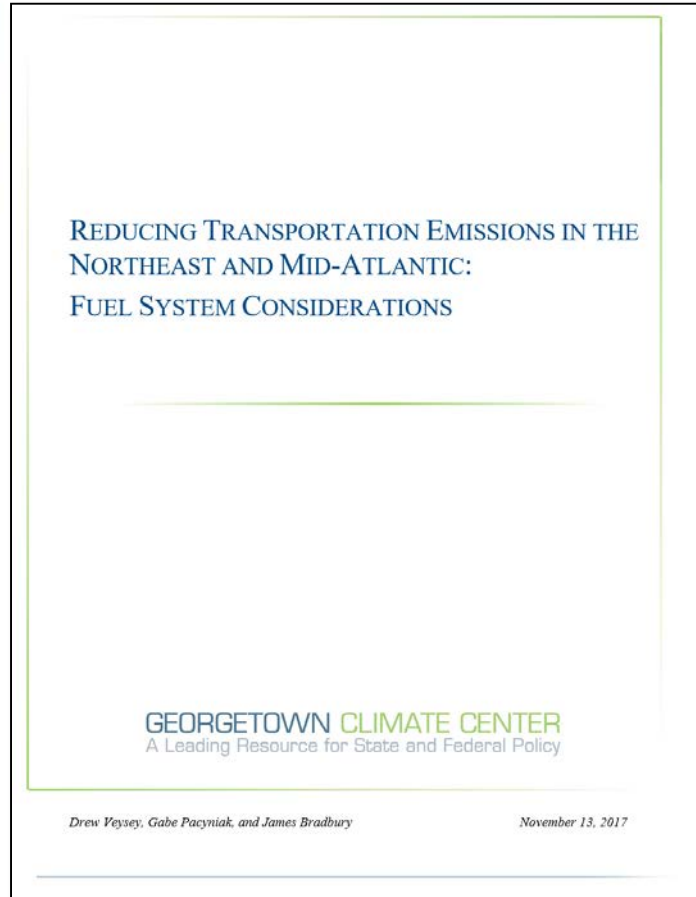
Fuel System Considerations in the TCI Region

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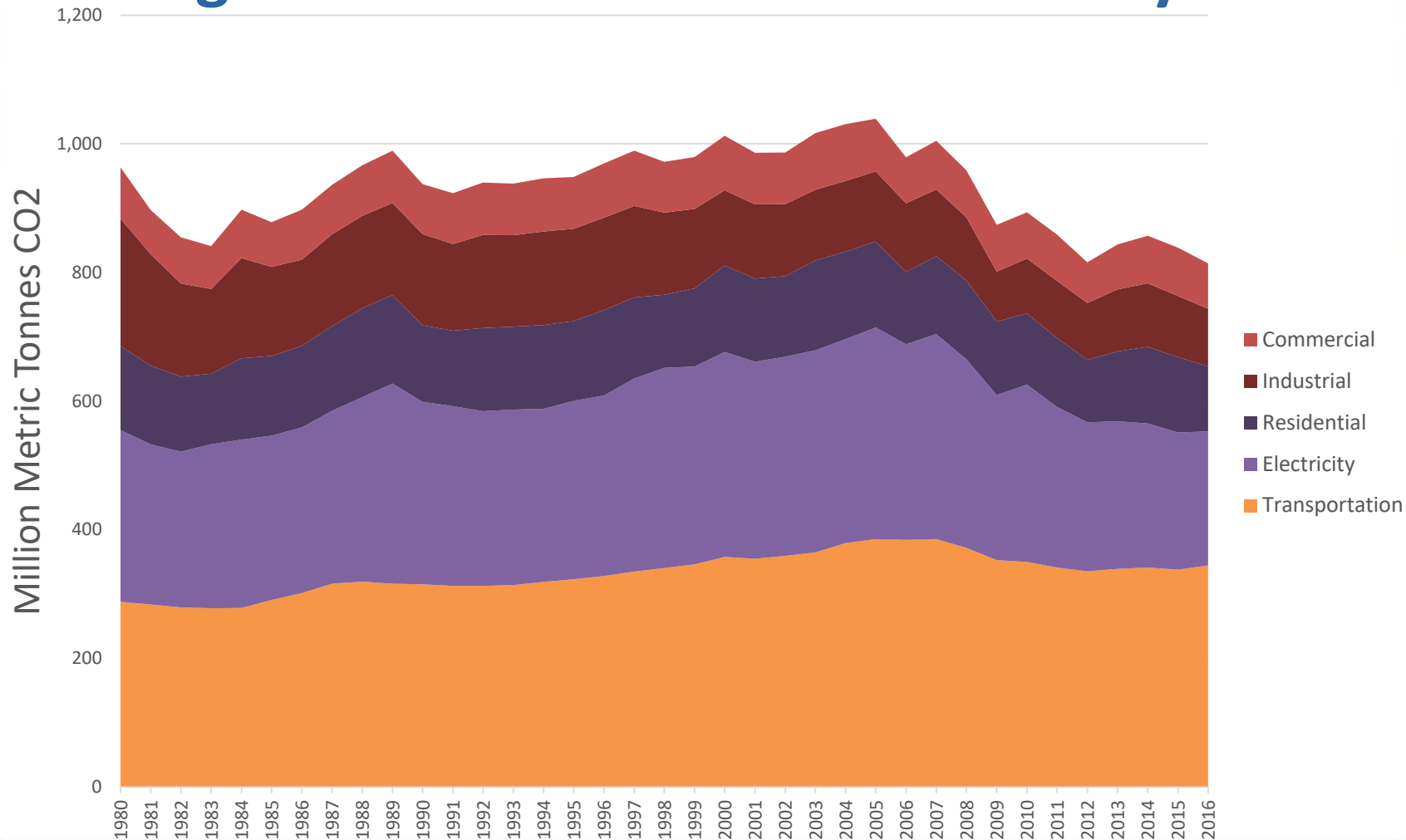
April 30, 2019

Georgetown's Analysis Focused on How a Cap-and-Invest Program for Transportation Might Work



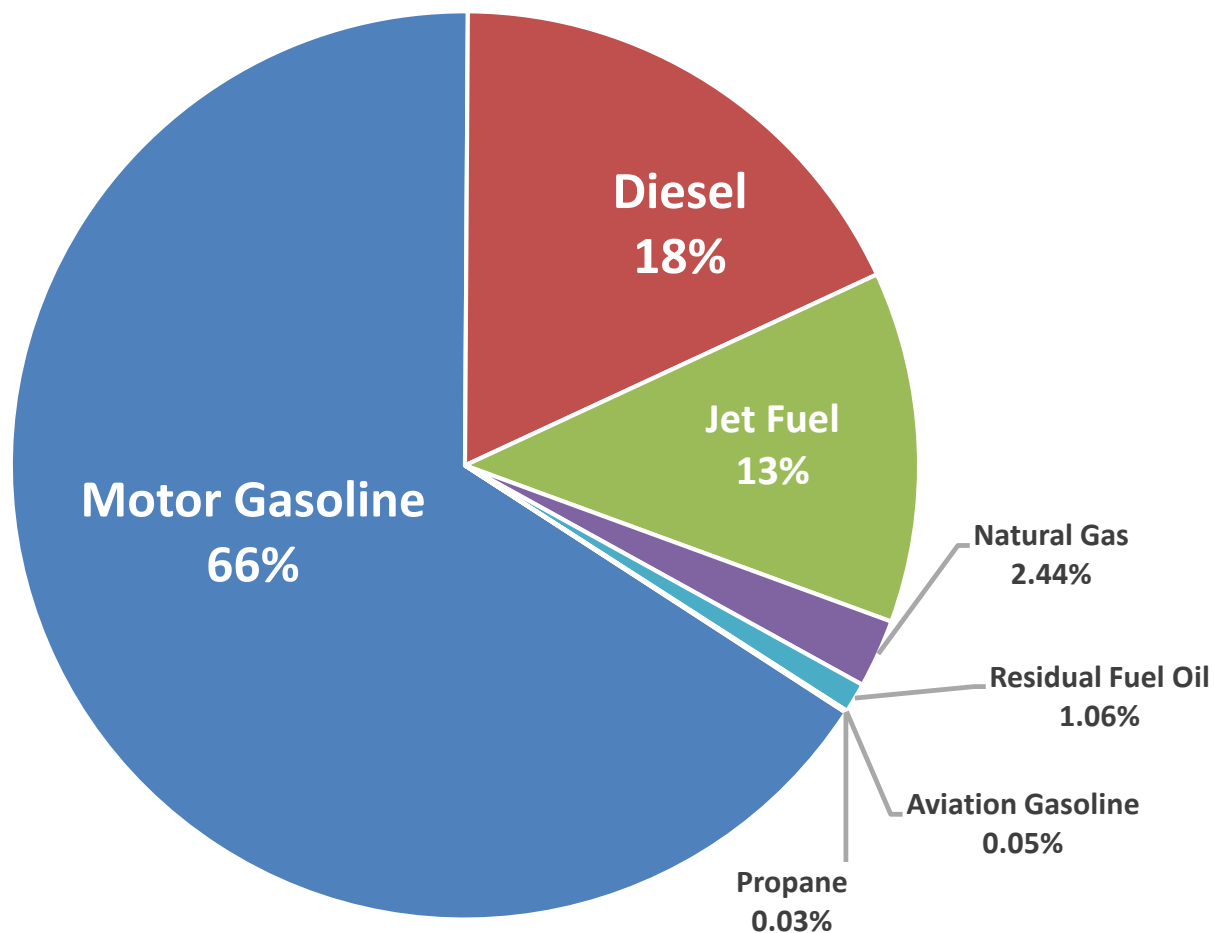
- Which fuels would be included?
- Which entities would have a compliance obligation?

TCI Region Carbon Dioxide Emissions by Sector



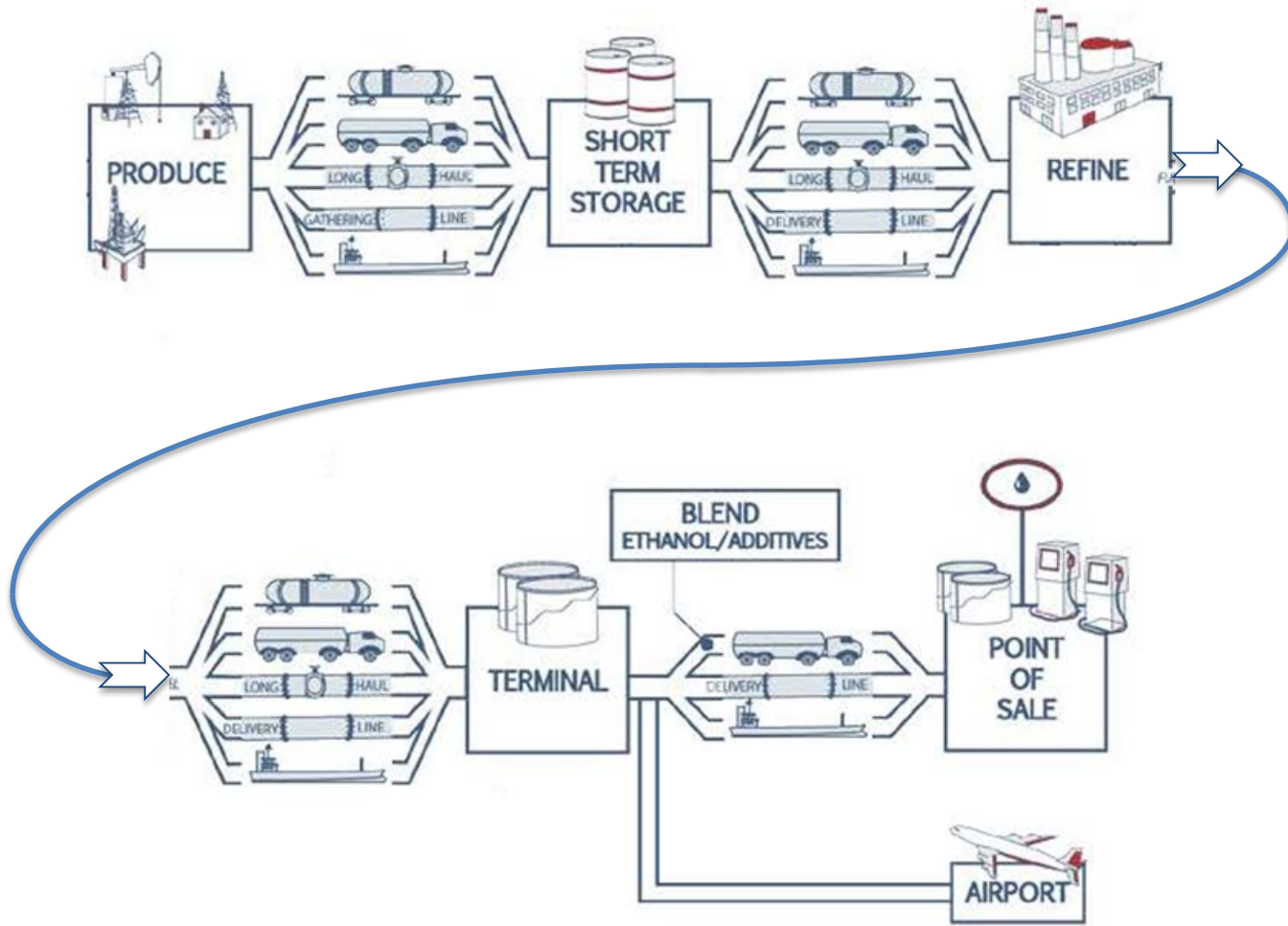
Source: EIA State Energy Data System

TCI Transportation Energy by Fuel Type



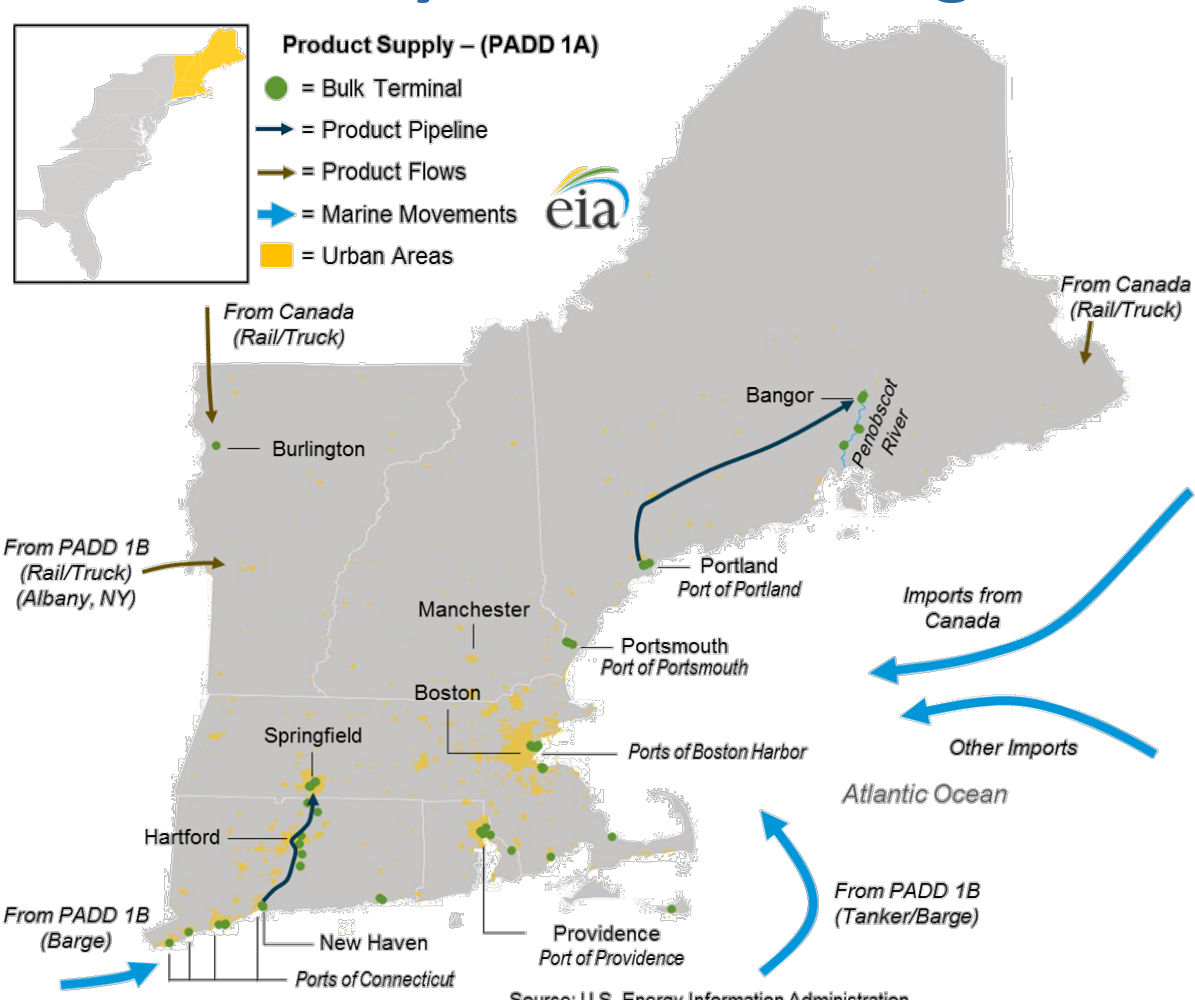
Source: EIA State Energy Data System

Petroleum Fuel Supply Chain



Source: American Petroleum Institute

TCI Fuel System: New England



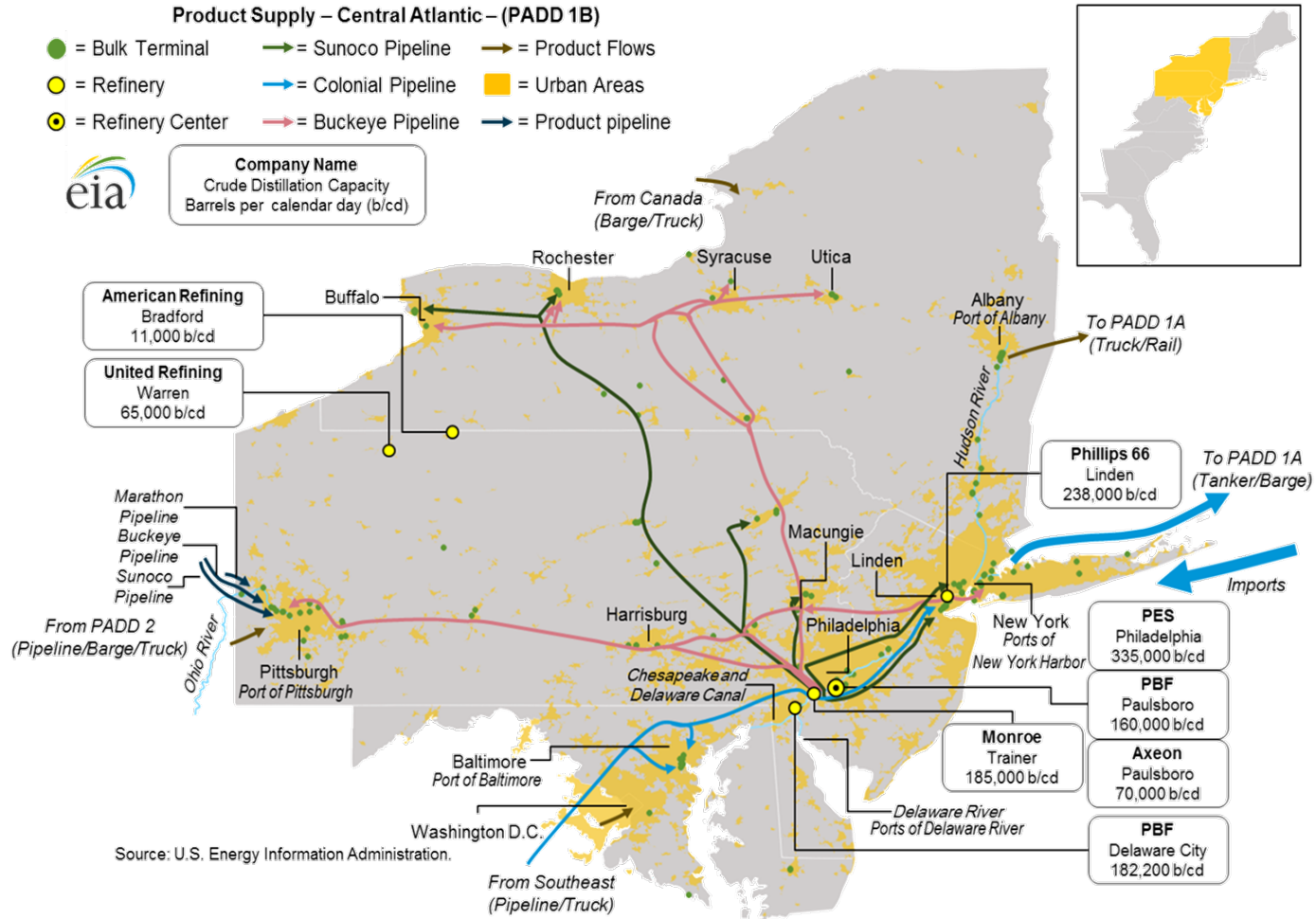
TCI Fuel System: Central Atlantic

Product Supply – Central Atlantic – (PADD 1B)

- = Bulk Terminal
- = Refinery
- = Refinery Center
- = Sunoco Pipeline
- = Colonial Pipeline
- = Buckeye Pipeline
- = Product Flows
- = Product pipeline
- = Urban Areas



Company Name
Crude Distillation Capacity
Barrels per calendar day (b/cd)



Source: U.S. Energy Information Administration.

TCI Fuel System: Virginia

Product Supply Southeast – (PADD 1C)

● = Bulk Terminal

● = Refinery

→ = Product Pipeline

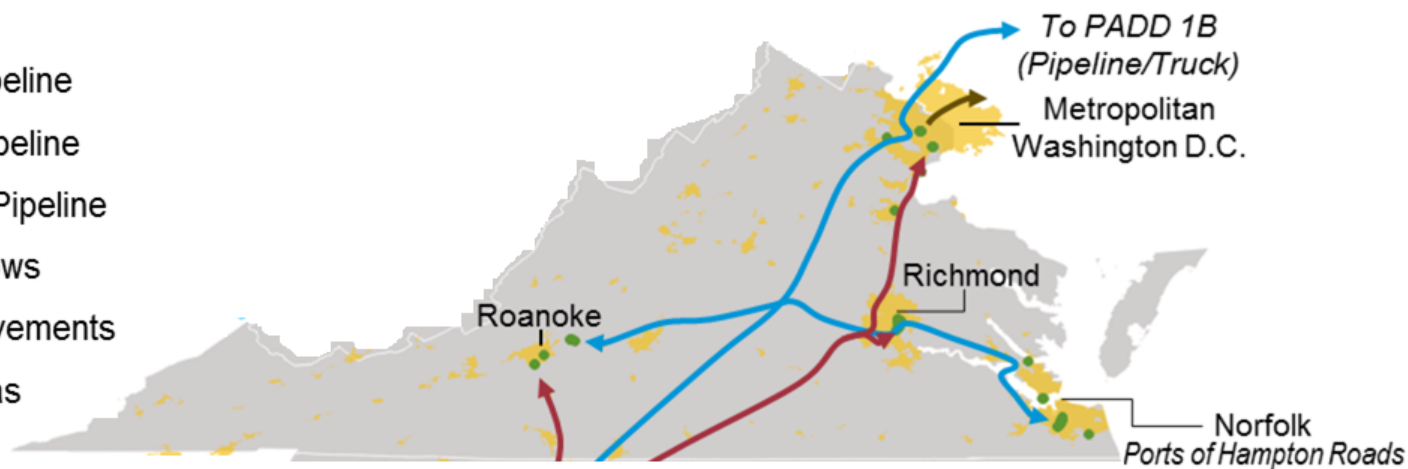
→ = Colonial Pipeline

→ = Plantation Pipeline

→ = Product Flows

→ = Marine Movements

■ = Urban Areas



Recommended Fuel Coverage

Finished Motor Gasoline and On-Road Diesel

Why?

- Largest portions of transportation GHGs (>82%)
- Can readily limit the scope to transportation only (e.g., fuels for other sectors like natural gas or home heating oil are not covered)
- Using default emissions factors, simple to estimate combustion emissions based on volumes of fuel sold
- Availability of tracking data, plus existing regulatory programs
- Jet fuel and others could be added later, if desired

Determining the point of regulation for a cap and invest program for transportation emissions

Important Considerations for a Point of Regulation

1. Technical feasibility
2. Higher upstream means covering a fewer number of larger sources
3. Targeted coverage, minimize misreporting and miscounting
4. Avoid regulating activities outside state boundaries
5. Build on existing programs, reporting requirements and industry practices
6. Consistent approaches simplify compliance for companies that operate in multiple jurisdictions
7. Manageable program administration workload

Options That Can Be Dismissed Easily

- Crude oil at point of extraction
 - Not much in the region
 - Exceedingly difficult to determine its end use
- Retail fuel stations
 - 10,000s of entities
- Individual vehicles at point of combustion
 - Millions of entities



Narrows it down to Three Options

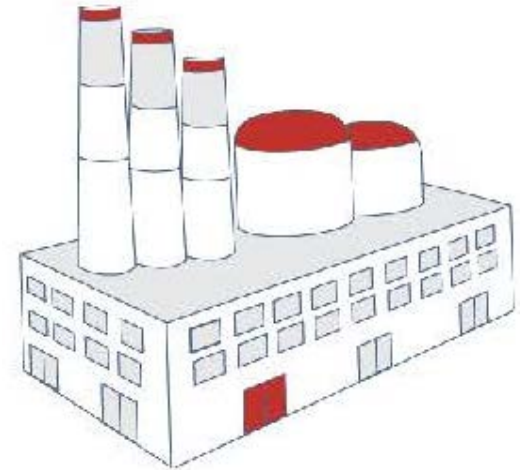
- A. Refiners and Importers
- B. State Fuel Taxation Entities
- C. EIA Prime Suppliers

Option A: Refiners and Importers

Oil refineries, and entities importing fuels into the TCI region through pipeline, barge, railcar, and truck

Characteristics:

- Not one single database
- Most fuel consumed in the region is produced outside the region
- Oil refineries operate in global market for petroleum products
- Large entities



Seven refineries in the region:

Delaware (DE); Bayway, Paulsboro(NJ); Bradford, Philadelphia, Trainer, Warren (PA)

Option B: State Fuel taxation entities

Characteristics:

- The *federal* fuel excise tax is usually assessed at the bulk terminal rack
- Each of the 13 TCI jurisdictions have a motor fuel excise tax
- Entities subject to *state* fuel excise taxes vary widely
 - Some small: local distributor
 - Some large: like federal tax
- Could build on existing reporting, regulatory, and tracking mechanisms
 - But, mostly confidential business information



Option C: EIA Prime Suppliers

Defined as: "A firm that produces, imports, or transports selected petroleum products across State boundaries and local marketing areas, and sells the product to local distributors, local retailers, or end users."

Characteristics:

- Report volumes of fuel on a monthly basis to EIA (Form EIA-782C)
- Only 195 Prime Suppliers in the United States, and about 100 that report for any of the 13 TCI jurisdictions
- Reporting is mandatory
- Most Prime Suppliers are large companies that supply fuel to multiple states

eia U.S. Energy Information Administration		OMB No. 1905-0174 Expiration Date: xx/xx/xxxx Burden: 2.1 hours
FORM EIA-782C MONTHLY REPORT OF PRIME SUPPLIER SALES OF PETROLEUM PRODUCTS SOLD FOR LOCAL CONSUMPTION		
<small>This report is mandatory under the Federal Energy Administration Act of 1974 (Public Law 93-275). Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. Title 18 USC 1001 makes it a criminal offense for any person knowingly and willfully to make to any agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction. See Instructions for further details on the sanctions and the provisions concerning the confidentiality of information submitted on this form.</small>		
PART 1. RESPONDENT IDENTIFICATION DATA	PART 2. SUBMISSION INFORMATION	
<small>If any Respondent Identification Data has changed since the last report, enter an "X" in the box.</small>	<small>Due Date: A completed form must be filed by the 20th calendar day following the end of the report month.</small>	
REPORT PERIOD: <input type="checkbox"/> Month <input type="checkbox"/> Year	How to Submit Forms: Instructions: http://www.eia.gov/survey/formeia_782c/instructions.pdf	
EIA ID NUMBER: _____	Exclusionary List: https://www.eia.gov/survey/formeia_782c/exclusion_list.pdf	
Company Name: _____	Secure File Transfer option available at: https://nigpon.eia.doe.gov/gisou/securefiles	
Doing Business as: _____	Electronic Transmission: For the PC Electronic Data Reporting Option (PEDRO) software, call (202) 556-9556.	
Contact Name: _____	Fax: (202) 566-0772	
Phone No.: _____ Ext: _____	Mail to: Oil & Gas Survey U.S. Department of Energy (E-25) Bell Franklin Station PO Box 279 Washington, DC 20044-0279	
Physical Address: _____ (e.g., Street Address, Bldg, Floor, Suite)	Questions? Call: 1-800-628-0812	
Mailing Address: _____ (e.g., PO Box, RR)		
City: _____ State: _____ Zip: _____		
Fax No.: _____		
Email address: _____		
DATE OF THIS REPORT: <input type="checkbox"/> Mo <input type="checkbox"/> Day <input type="checkbox"/> Year		
Number of States for which you are reporting: <input type="checkbox"/>		
Type of Report (Check One): <input type="checkbox"/> Original <input type="checkbox"/> Revision to Report Dated: <input type="checkbox"/> Mo <input type="checkbox"/> Day <input type="checkbox"/> Year		
PART 3. TYPE OF OPERATIONS		
Type of Entity (Check One):		
1 <input type="checkbox"/> Refiner/Gas Plant Operator	3 <input type="checkbox"/> Reseller/Retailer	
2 <input type="checkbox"/> Reseller	4 <input type="checkbox"/> Reseller	
Which of the following best describes this firm at the end of this report period? (Check one)		
1 <input type="checkbox"/> In operation	3 <input type="checkbox"/> Sold or leased to another firm. See PART 3 of the instructions.	
2 <input type="checkbox"/> Temporarily or seasonally inactive	4 <input type="checkbox"/> Permanently ceased operation. See PART 3 of the instructions.	
Comments: (To separate one comment from another, press ALT+ENTER)		

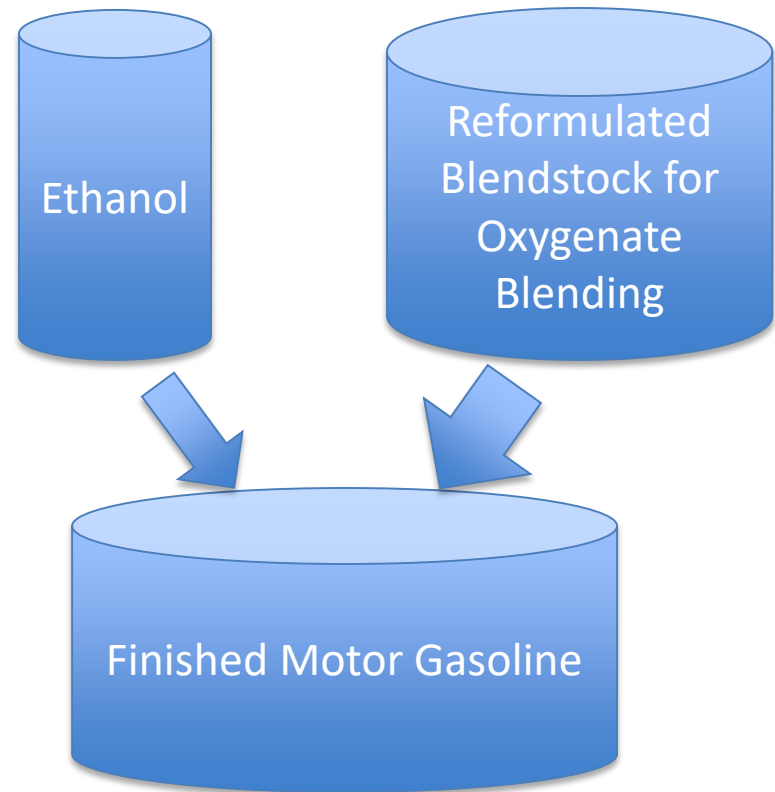
Advantages of using Prime Suppliers as the point of regulation

1. State-based definition
2. Entities exist in every state
3. Consistent across states
4. Higher in the supply chain than many state points of taxation
5. Typically larger companies than those assessed by state taxes
6. Based on reporting requirement designed to avoid double counting
7. More adaptable:
 - Relatively easy to expand coverage to more fuel types
 - States could join (or leave) with less disruption to the program

Building on the EIA Prime Supplier report

Reporting requirements to add:

1. Fuel components:
blendstock, ethanol,
biodiesel, etc
2. Measures to reduce under-
reporting and misreporting



Data sources to bolster the information in the Prime Supplier report

- *EPA Greenhouse Gas Reporting Program* - information on refineries as well as importers/distributors
- *EPA fuel sulfur program* - information on where custody of a batch of fuel is transferred
- *EPA Renewable Fuels program* - information about where final motor gasoline is created by blending
- *EIA-821 Annual Fuel Oil and Kerosene Sales Report*
- State taxation records
- 3rd party market information brokers

Summary

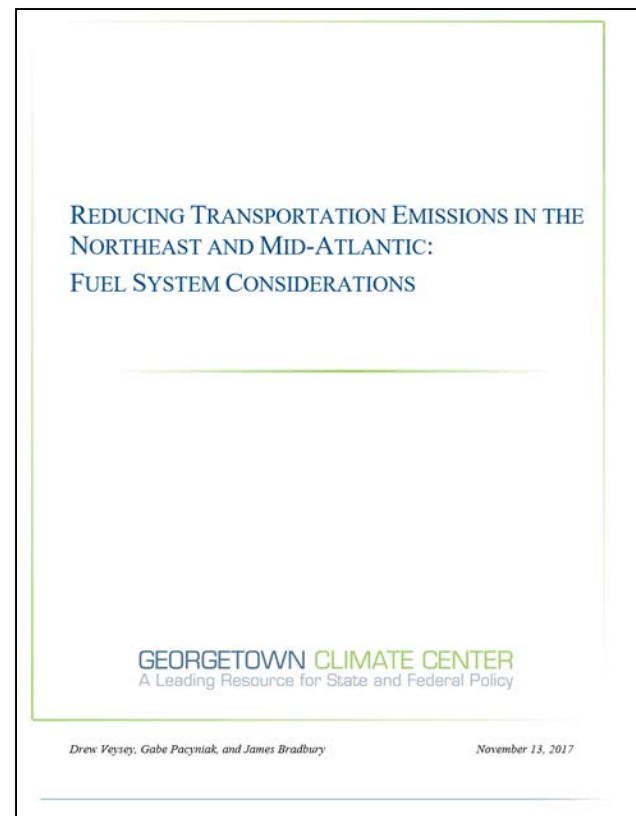
Recommendations:

- Cover finished motor gasoline and on-road diesel
- Use Prime Suppliers as the point of regulation, with some additional information used to strengthen reporting

Next steps:

- The TCI Technical Analysis Workgroup is exploring details (final decisions have not been made)

More details in Georgetown paper →



Thank you!

For more information, please find the paper here:

<https://www.georgetownclimate.org/reports/reducing-transportation-emissions-in-the-northeast-and-mid-atlantic-fuel-system-considerations.html>

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