

# **Mark Warner's NJ Energy Flow Data: 2012**

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**Tab 1. Model Inputs and Calculations**

ALL DATA ARE FOR 2012 UNLESS OTHERWISE NOTED		Yellow Background = Hard Input Parameter from EIA, PJM, or CEP data sources				
		Green Background = Calculated Result				
		Purple Background = Inferred input from intermediate calculation/data				
Primary Energy Consumption						
On-Site Fuel Use By Sector	Fuel Consumed	Units	Conversion	Fuel Energy	Units	EIA Code
<b>Residential</b>						
Nat Gas	191,371	Million Cu-Ft.	1.02788	196,706	B-BTUs	NGRCP
Distillate Fuel Oil	4,202	Thousand Barrels	5.82556	24,479	B-BTUs	DFRCP
LPG	1,067	Thousand Barrels	3.83505	4,092	B-BTUs	LGRCF
Kerosene	11	Thousand Barrels	5.45454	60	B-BTUs	KSRCP
Renewable: Wood	457	Thousand Cords	19.99344	9,137	B-BTUs	WDRCP
Renewable: Geothermal (heat)		N/A	N/A	446	B-BTUs	GERCB
<b>Total: Residential On-Site Fuel Use:</b>				<b>234,920</b>		
<b>Commercial</b>						
Natural Gas	174,641	Million Cu-Ft.	1.02788	179,510	B-BTUs	NGCCP
Coal	0	Thousand Short Tons	24.50000	0	B-BTUs	CLCCP
Distillate Fuel Oil	1,891	Thousand Barrels	5.82602	11,017	B-BTUs	DFCCP
Residual Fuel Oil	43	Thousand Barrels	6.25581	269	B-BTUs	RFCCP
LPG	361	Thousand Barrels	3.83934	1,386	B-BTUs	LGCCP
Kerosene	3	Thousand Barrels	4.66667	14	B-BTUs	KSCCP
Ethanol	7	Thousand Barrels	3.71429	26	B-BTUs	ENCCP
Motor Gasoline	65	Thousand Barrels	5.24615	341	B-BTUs	MGCCP
Renewable: Wood		N/A	N/A	1,289	B-BTUs	WDCCB
Renewable: Waste		N/A	N/A	2,682	B-BTUs	WSCCB
Renewable: Geothermal (heat)		N/A		0	B-BTUs	GECCB
<b>Total: Commercial On-Site Fuel Use:</b>				<b>196,534</b>		

<b>Industrial</b>						
Natural Gas	54,785	Million Cu-Ft.	1.02787	56,312	B-BTUs	NGICP
Coal	0	Thousand Short Tons	23.40000	0	B-BTUs	CLICP
Distillate Fuel Oil	1,901	Thousand Barrels	5.82483	11,073	B-BTUs	DFICP
Residual Fuel Oil	272	Thousand Barrels	6.29004	1,711	B-BTUs	RFICP
LPG	365	Thousand Barrels	3.46575	1,265	B-BTUs	LGICP
Kerosene	15	Thousand Barrels	5.53333	83	B-BTUs	KSICP
Ethanol	111	Thousand Barrels	3.48649	387	B-BTUs	ENICP
Motor Gasoline	985	Thousand Barrels	5.21624	5,138	B-BTUs	MGICP
Aviation Gasoline	0	Thousand Barrels	4.6	0	B-BTUs	ABICP
Petroleum Coke (assumed to be used as energy)	4,292	Thousand Barrels	6.023765	25,854	B-BTUs	PCICP
Miscellaneous Petroleum (assumed used as energy)	873	Thousand Barrels	5.793814	5,058	B-BTUs	MSICP
Other Petroleum (assumed used as energy)	12,556	Thousand Barrels	5.981602	75,105	B-BTUs	POICP
Renewable: Wood		N/A		3,397	B-BTUs	WDICB
Renewable: Waste		N/A		512	B-BTUs	WSICB
Renewable: Geothermal (heat)		N/A		0	B-BTUs	GEICB
Non--Energy: Still Gas (assumed used as feedstock)	6,936	Thousand Barrels	N/A	N/A	B-BTUs	SGICP
Non-Energy: Asphalt and Road Oil (feedstock)	4,709	Thousand Barrels	N/A	N/A	N/A	ARICP
Non-Energy: Lubricants (feedstock)	1,189	Thousand Barrels	N/A	N/A	N/A	LUICP
Non-Energy: Waxes (feedstock)	70	Thousand Barrels	N/A	N/A	N/A	WXICP
Non-Energy: Special Napthas (feedstock)	96	Thousand Barrels	N/A	N/A	N/A	SNICP
Non-Energy: Unfinished Oils (feedstock)	290	Thousand Barrels	N/A	N/A	N/A	UOICP
<b>Total: Industrial On-Site Fuel Use (energy only):</b>				<b>185,895</b>		

<b>Industrial On-Site Electricity Generation</b>	
% Of On-Site Fuel Used For Electricity Generation:	37.00%
Effective Efficiency Of Electricity Generation:	11.30%
Onsite Fuel Dedicated To Onsite Generation (B-BTUs):	68,781
Electricity Generated Onsite (B-BTUs):	7,772
Note: Source - EIA MECS national profile for 2010, same %'s applied to NJ	
Note: See "Other Data" tab for sources and detailed calculations	
Note: Most of the generation is CHP, steam is primary output	

Electricity Generation	Primary Supply (Physical Units)			====>	Primary Supply (Energy Units)			Delivered (Generated) Electricity				
	Consumption	Fuel Units	EIA Code		Conversion	Consumption	Energy Units	EIA Code	Generation	Energy Units	EIA Code	% Efficiency
<b>Centralized Generation (In-State)</b>												
Nuclear	N/A	N/A		N/A	346,962	B. BTUs	NUEGB	112,976	B. BTUs	NUEGP		32.6%
Nat Gas and other gases	226,469	Million Cu-Ft.	NGEIP	1.031108	233,514	B. BTUs		96,512	B. BTUs	EIA NJ Profile		41.3%
Coal	1,007	Th. Short Tons	CLEIP	25.411122	25,589	B. BTUs		6,474	B. BTUs	EIA NJ Profile		25.3%
Distillate Fuel Oil	43	Th. Barrels	DFEIP	5.8837209	253	B. BTUs		242	B. BTUs	EIA NJ Profile		70.1%
Residual Fuel Oil	15	Th. Barrels	RFEIP	6.133333	92	B. BTUs			B. BTUs	EIA NJ Profile		
Renewable: Wood	N/A	N/A		N/A	0	B. BTUs	WDEIB	0	B. BTUs	EIA NJ Profile		N/A
Renewable: Waste (MSW)	N/A	N/A		N/A	12,301	B. BTUs	WSEIB	2,158	B. BTUs	EIA NJ Profile		17.5%
Renewable: Other Biomass and Landfill Gas	N/A	N/A		N/A	10,974	B. BTUs	EIA NJ Profile	3,292	B. BTUs	EIA NJ Profile		30.0%
Renewable - Hydro	N/A	N/A		N/A	102	B. BTUs	HYEGB	36	B. BTUs	HYEGP		35.3%
Renewable - Solar (grid)	N/A	N/A			2,420	B. BTUs	See below	726	B. BTUs	See below		
Renewable - Wind (grid)	N/A	N/A			0.137	B. BTUs	See below	0.041	B. BTUs	PJM Data		
<b>Total Centralized In-State Generation:</b>					632,207	B. BTUs		222,416	B. BTUs			

<b>Imported PJM Electricity (See "other data" tab for PJM data sources)</b>			
Total Consumed Electricity (Instate & Imported):	256,536	B-BTUs	ESTXB
Derived Imported Electricity:	34,120	B-BTUs	Note: EIA data inconsistent (ESLIB), used total (ESTXB) minus instate production to infer net import
Assumed PJM Fleet Efficiency:	0.30		
Derived PJM Primary Energy Used (for NJ import):	113,733	B-BTUs	
PJM Fossil Fuel Fraction (63.4%, 2006 PJM Data):	72,107	B-BTUs	See "Other Data" Tab
PJM Non-Fossil Fuel Fraction (36.6%, 2006 PJM Data):	41,626	B-BTUs	See "Other Data" Tab
% of NJ Delivered Electricity Imported From PJM	13.3%		
% of Physical Supply For Electricity From Within PJM	15.2%		

<b>Solar Calculation (In-State)</b>	Distributed	Grid Supply
Capacity As Of EO 2011 (KW):	454,394	110,429
Capacity Installed In 2012 (KW):	305,854	111,491
Effective Capacity (KW):	637,906	177,324
Estimated Production 2012 (MWHrs):	765,488	212,788
Estimated Production 2012 (B-BTUs):	2,612	726
Equivalent Primary Supply @ 30% (B-BTUs):	8,707	2,420

Distributed Solar Generation Summary				
	Market Share	Primary	Delivered	
Residential	16.3%	1,419.2	425.7	B-BTUs
Commercial	83.7%	7,287.3	2,186.2	B-BTUs

Note: NJ-CEP data does not break out commercial and industrial, so report everything as commercial  
Source: NJ-CEP solar project list, sorted and calculated by application segment and completion date

Consolidated Summary For InfoGraphic	Primary	Generated	
<b>In-state Generation</b>			
Grid Solar	2,420	726	B-BTUs
Grid Wind	0.137	0.041	B-BTUs
Large Hydro	102	36	B-BTUs
Wood & Waste	23,275	5,450	B-BTUs
Nuclear	346,962	112,976	B-BTUs
Fuel Oil	345	242	B-BTUs
Coal	25,589	6,474	B-BTUs
Natural Gas	233,514	96,512	B-BTUs
<b>Utility Power Distribution By Segment</b>			
	<b>B-BTUs</b>	<b>%</b>	<b>EIA Code</b>
Residential	97,798	38.1%	ESRCB
Commercial	131,273	51.2%	ESCCB
Industrial	26,485	10.3%	ESICB
Transportation	980	0.4%	ESACB
Total:	256,536		

<b>Notes On Electricity Generation Data</b>	
(1) "Wood and Waste" includes biomass, wood, MSW, landfill gas	
(2) Fuel Oil combines distillate and residual oils	
(3) Natural Gas includes associated fossil-fuel gases	

Fueled Transportation	Primary Energy Consumption					
	Fuel Cons.	Units	Conversion	Fuel Energy	Units	EIA Code
<b>Fuel Use By Fuel Type</b>						
Gasoline	94,861	Thousand Barrels	5.21898	495,078	Billion BTUs	MGACP
Bio-Fuel: Ethanol	10,743	Thousand Barrels	3.46858	37,263	Billion BTUs	ENACP
Natural Gas	4,794	Million Cu-Ft.	1.02759	4,926	Billion BTUs	NGACP
LP (mostly non-Highway, forklifts, etc)	114	Thousand Barrels	3.83333	437	Billion BTUs	LGACP
Distillate Fuel Oil (Vehicle or Road Diesel)	20,331	Thousand Barrels	5.82510	118,430	Billion BTUs	DFACP
Residual Fuel Oil (Diesel - Mostly Marine)	6,407	Thousand Barrels	6.28734	40,283	Billion BTUs	RFACP
Aviation Gasoline	64	Thousand Barrels	5.07813	325	Billion BTUs	AVACP
Jet Fuel (Kerosene)	31,611	Thousand Barrels	5.66996	179,233	Billion BTUs	JFACP
Non-Energy: Lubricants	511	Thousand Barrels	6.06458	3,099	Billion BTUs	LUACP

Fuel Distribution By Fuel Type and Vehicle Class					
Light	Heavy	Trains	Ships	Planes	
0.94839	0.03749	0.00000	0.01239	0.00174	
1.00000					
0.00000	1.00000				
	1.00000				
0.06202	0.81172	0.07984	0.04644	0.00000	
			1.00000		
				1.00000	
				1.00000	

Note: See "other data" tab for sources of fuel-use by vehicle class

<b>Fuel Use By Vehicle Class (primarily road use)</b>	<b>Light</b>	<b>Heavy</b>	<b>Trains</b>	<b>Ships</b>	<b>Planes</b>	
Gasoline	469,526.0	18,558.4		6,133.6	863.2	B-BTUs
Bio-Fuel: Ethanol	37,263.0					B-BTUs
Natural Gas	0.0	4,926.3				B-BTUs
LP		437.0				
Distillate Fuel Oil (Road Diesel)	7,344.5	96,132.3	9,455.2	5,499.8		B-BTUs
Residual Fuel Oil (Marine Diesel)				40,283.0		B-BTUs
Aviation Gasoline					325.0	B-BTUs
Jet Fuel					179,233.0	B-BTUs

<b>Consumption Activity</b>		
Highway Vehicle Miles Traveled (VMT) - 2012	74,225	Million Miles
Vehicles Miles Traveled (VMT) - 2012	74,000	Million Miles
NJ Population - 2012	8,867,749	People
NJ GDP - 2012	438.2	Billions of 2005-\$
Heating Degree-Days (2012)	4,220.0	Deg-F
Cooling Degree-Days (2012)	930.0	Deg-F
<a href="http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/state_transportation_statistics/state_transportation_statistics_2014/index.html/chapter5/table5-3">http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/state_transportation_statistics/state_transportation_statistics_2014/index.html/chapter5/table5-3</a>		
Rutgers NJ GHG Inventory (Issued April 2015)		

In-State Electricity Generation (Retail sales)	67.0	TWhrs
Imported Electricity (from PJM)	8.0	TWhrs
Total Retail Electricity Consumption - 2012	75.0	TWhrs

Vehicle Registrations - 2012		
Passenger Cars (private and non-private)	3,931	Th. Vehicles
Other Passenger Vehicles (Pickups, SUVs, MCs, buses)	2,932	Th. Vehicles
Short-Haul Trucks (Vans)	715	Th. Vehicles
Long-Haul Trucks (Tractors)	43	Th. Vehicles
Other Light Trucks (including off-road)	9	Th. Vehicles
<a href="http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/state_transportation_statistics/state_transportation_statistics_2014/index.html/chapter5/table5-1">http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/state_transportation_statistics/state_transportation_statistics_2014/index.html/chapter5/table5-1</a>		
Includes motorcycles, buses, pickups, and SUVs		

<b>General Notes</b>					
1) Other biomass (BMGCP) not included, since EIA data is unclear where or how it is consumed					
2) Missing information about what fraction of on-site fuel is consumed for cogen (with wholesale electricity export) or onsite electricity generation					



**Tab 2. Model Outputs**

Model Outputs (matching format of infographic)			
Emission Factors (converts mass of primary supply to CO2 emissions)			
	<b>Pounds</b>		
	<b>Of CO2</b>		
<b>Fuel Type</b>	<b>Per B-BTU</b>	<b>Source</b>	
Coal (average)	210,200	(1)	
Road/Vehicle Diesel and Heating Oil	161,300	(1)	
Residual Oil (marine)	173,700	(1)	
Other Petroleum	160,100	(1)	
Gasoline	157,200	(1)	
Propane	139,000	(1)	
Natural Gas	117,000	(1)	
Kerosene	159,400	(1)	
Pet Coke	225,100	(1)	
Municipal Solid Waste	199,900	(2)	
Jet Fuel	156,300	(1)	
Aviation Gasoline	152,600	(1)	
Liquid Biofuel: Ethanol	127,332	(3) 19% less than gasoline net impact	
Wood and Wood Waste:	221,900	(2)	
Sources:			
(1) EIA	<a href="http://www.eia.gov/environment/emissions/co2_vol_mass.cfm">http://www.eia.gov/environment/emissions/co2_vol_mass.cfm</a>		
(2) EIA	<a href="http://www.mwcog.org/uploads/committee-documents/vlZeWV420070820112319.pdf">http://www.mwcog.org/uploads/committee-documents/vlZeWV420070820112319.pdf</a>		
(3) DOE	<a href="http://www.afdc.energy.gov/vehicles/flexible_fuel_emissions.html">http://www.afdc.energy.gov/vehicles/flexible_fuel_emissions.html</a>		

**Preliminary Calculations**

<b>Total Primary Energy Use (B-BTUs)</b>		
Onsite Fuel Use:	617,349	27.5%
In-State Electricity:	640,914	28.5%
Imported Electricity:	113,733	5.1%
Transportation:	875,980	39.0%
<b>Total:</b>	<b>2,247,976</b>	
<b>Fossil Fuel (B-BTUs)</b>		
Total Coal:	25,589	1.1%
Total NatGas:	670,968	29.8%
Total: LPG	7,180	0.3%
Total: Fuel Oil	48,894	2.2%
Total: Kerosene	157	0.0%
Total: Gasoline	500,557	22.3%
Total: Vehicle Diesel	118,430	5.3%
Total: Marine Diesel	40,283	1.8%
Total: Jet Fuel	179,233	8.0%
Total: Aviation Gasoline	325	0.0%
Total: Misc. Petroleum	106,017	4.7%
In-State Fossil:	1,697,633	
Total: PJM Fossil Fuel	72,107	3.2%
Total Fossil Fuel:	1,769,740	78.7%

<b>PJM Generation (w/o NJ fleet) 2012</b>		
PJM Fuel Type	%	CO2 (pounds)
Methane (LFG)	0.003186	42,399,945
Coal	0.457258	10,931,515,852
Natural Gas	0.170286	2,265,948,217
Hydro	0.008905	0
Nuclear	0.333809	0
Distillate Fuel Oil	0.000206	3,779,294
Petroleum Coke	0.001426	36,506,953
Residual Fuel Oil	0.001891	37,360,800
Solar	0	0
Waste	0.004142	94,162,044
Wind	0.017553	0
Wood	0.001382	34,874,215
<b>Total</b>		<b>13,446,547,319</b>

Percentages come from "Other Data" tab, PJM supply mix table (w/o NJ)

<b>Non-Fossil Fuel (B-BTUs)</b>		
Grid Solar	2,420	0.1%
Grid RE Other	0.137	0.0%
Large Hyrdo	102	0.0%
Central W&W	23,275	1.0%
Bio-Fuel: Ethanol	37,676	1.7%
Nuclear	346,962	15.4%
Dist. Solar	8,707	0.4%
Dist. W&W	17,017	0.8%
Dist. Geothermal	446	0.0%
In-State Non-Fossil:	436,605	
PJM Non-Fossil Fuel	41,626	1.9%
Total Non-Fossil Fuel:	478,231	0.212739
<b>Total Energy (B-BTUs)</b>		
Total In-State:	2,134,238	94.9%
Total Out-Of State:	113,733	5.1%
<b>Total Primary Energy:</b>	<b>2,247,971</b>	B-BTUs
<b>Fossil Fuel Fraction:</b>	<b>78.7%</b>	



Primary Energy				Delivered Energy		E-Factor	Discount	CO2 Emissions (pounds)		CO2 (MMT)
		P-C-NG	179,510	D-C-NG	179,510	117,000	1.00	E-C-NG	21,002,668,956	9.547
		P-C-FO	11,286	D-C-FO	11,286	161,300	1.00	E-C-FO	1,820,432,416	0.827
		P-C-LP	1,386	D-C-LP	1,386	139,000	1.00	E-C-LP	192,653,991	0.088
		P-C-KE	14	D-C-KE	14	159,400	1.00	E-C-KE	2,231,602	0.001
		P-C-MG	341	D-C-MG	341	157,200	1.00	E-C-MG	53,605,202	0.024
		P-C-CL	0	D-C-CL	0	210,200	1.00	E-C-CL	0	0.000
		P-C-DW	3,971	D-C-DW	3,971	221,900	1.00	E-C-DW	881,164,900	0.401
		P-C-BF	26	D-C-BF	26	127,332	1.00	E-C-BF	3,310,632	0.002
		P-C-UP	131273	D-C-UP	131,273	N/A	N/A	E-D-UP		0.000
		P-C-DS	7,287	D-C-DS	2,186	0	1.00	E-C-DS	0	0.000
		P-C-GE	0	D-C-GE	0	N/A	N/A	E-C-GE		0.000
		P-C-TE	335,094	D-C-TE	335,094			E-C-TE	23,956,067,699	10.889
		P-I-NG	56,312	D-I-NG	56,312	117,000	1.00	E-I-NG	6,588,506,610	2.995
		P-I-FO	12,784	D-I-FO	12,784	161,300	1.00	E-I-FO	2,062,041,631	0.937
		P-I-LP	1,265	D-I-LP	1,265	139,000	1.00	E-I-LP	175,834,978	0.080
		P-I-KE	83	D-I-KE	83	159,400	1.00	E-I-KE	13,230,192	0.006
		P-I-CL	0	D-I-CL	0	210,200	1.00	E-I-CL	0	0.000
		P-I-MP	106,017	D-I-MP	106,017	192,600	1.00	E-I-MP	20,418,872,989	9.281
		P-I-MG	5,138	D-I-MG	5,138	157,200	1.00	E-I-MG	807,693,653	0.367
		P-I-DW	3,909	D-I-DW	3,909	221,900	1.00	E-I-DW	867,407,100	0.394
		P-I-BF	387	D-I-BF	387	127,332	1.00	E-I-BF	49,277,477	0.022
		P-I-AG	0	D-I-AG	0	152,600	1.00	E-I-AG	0	0.000
		P-I-UP	26485	D-I-UP	26,485	N/A	1.00	E-I-UP		0.000
		P-I-DS	0	D-I-DS	0	0	1.00	E-I-DS	0	0.000
		P-I-GE	0	D-I-GE	0	N/A	N/A	E-I-GE		0.000
		P-I-TE	212,380	D-I-TE	212,380			E-I-TE	30,982,864,631	14.083

Primary Energy				Delivered Energy		E-Factor	Discount	CO2 Emissions (pounds)		CO2 (MMT)
		P-L-MG	469,526	D-L-MG	469,526	157,200	1.00	E-L-MG	73,809,489,143	33.550
		P-L-BF	37,263	D-L-BF	37,263	127,332	1.00	E-L-BF	4,744,772,050	2.157
		P-L-VD	7,344	D-L-VD	7,344	161,300	1.00	E-L-VD	1,184,660,545	0.538
		P-L-NG	0	D-L-NG	0	117,000	1.00	E-L-NG	0	0.000
		P-H-VD	96,132	D-H-VD	96,132	161,300	1.00	E-H-VD	15,506,148,025	7.048
		P-H-MG	18,558	D-H-MG	18,558	157,200	1.00	E-H-MG	2,917,376,985	1.326
		P-H-NG	4,926	D-H-NG	4,926	117,000	1.00	E-H-NG	576,374,298	0.262
		P-H-LP	437	D-H-LP	437	139,000	1.00	E-H-LP	60,742,995	0.028
		P-T-VD	9,455	D-T-VD	9,455	161,300	1.00	E-T-VD	1,525,123,576	0.693
		P-S-MD	40,283	D-S-MD	40,283	173,700	1.00	E-S-MD	6,997,157,134	3.181
		P-S-MG	6,134	D-S-MG	6,134	157,200	1.00	E-S-MG	964,205,226	0.438
		P-S-VD	5,500	D-S-VD	5,500	161,300	1.00	E-S-VD	887,117,897	0.403
		P-P-JF	179,233	D-P-JF	179,233	156,300	1.00	E-P-JF	28,014,119,577	12.734
		P-P-AG	325	D-P-AG	325	152,600	1.00	E-P-AG	49,595,000	0.023
		P-P-MG	863	D-P-MG	863	157,200	1.00	E-P-MG	135,691,953	0.062
		P-T-UP	980	D-T-UP	980	N/A	N/A	E-T-UP		0.000
		P-V-RP	0	D-V-RP	0	N/A	N/A	E-V-RP		0.000
		P-V-CP	0	D-V-CP	0	N/A	N/A	E-V-CP		0.000
		P-V-IP	0	D-V-IP	0	N/A	N/A	E-V-IP		0.000
								E-A-TE	137,372,574,401	62.442
Total Primary Energy - % Fossil Fuel:			78.7%							
In-State Electricity - % Fossil Fuel (Primary):			41.0%							
<b>Total Energy Related CO2 Emissions:</b>									<b>272,262,760,156</b>	<b>Pounds</b>
									<b>123.756</b>	<b>MMT</b>

108.7	MMT Adjusted for Aviation and Marine Methodology difference
99.6	Rutgers 2012 Energy Only, CO2 Only MMT

**Tab 3. EIA Data**

	<b>The following data from EIA SEDS data covering NJ fuel and energy consumption for NJ in 2012 (<a href="http://www.eia.gov/state/seds/">http://www.eia.gov/state/seds/</a>)</b>			
	<b>The field codes in column A are referenced in the "model inputs" tab in every case where this data is used.</b>			
ABICB	Aviation gasoline blending components consumed by the industrial sector.	2012	0 Billion Btu	
ABICP	Aviation gasoline blending components consumed by the industrial sector.	2012	0 Thousand barrels	
ARICB	Asphalt and road oil consumed by the industrial sector.	2012	31247 Billion Btu	
ARICD	Asphalt and road oil price in the industrial sector.	2012	8 Dollars per million Btu	
ARICP	Asphalt and road oil consumed by the industrial sector.	2012	4709 Thousand barrels	
ARICV	Asphalt and road oil expenditures in the industrial sector.	2012	276 Million dollars	
ARTCB	Asphalt and road oil total consumption.	2012	31247 Billion Btu	
ARTCD	Asphalt and road oil average price, all sectors.	2012	8 Dollars per million Btu	
ARTCP	Asphalt and road oil total consumption.	2012	4709 Thousand barrels	
ARTCV	Asphalt and road oil total expenditures.	2012	276 Million dollars	
ARTXB	Asphalt and road oil total end-use consumption.	2012	31247 Billion Btu	
ARTXD	Asphalt and road oil average price, all end-use sectors.	2012	8 Dollars per million Btu	
ARTXP	Asphalt and road oil total end-use consumption.	2012	4709 Thousand barrels	
ARTXV	Asphalt and road oil total end-use expenditures.	2012	276 Million dollars	
AVACB	Aviation gasoline consumed by the transportation sector.	2012	325 Billion Btu	
AVACD	Aviation gasoline price in the transportation sector.	2012	33 Dollars per million Btu	
AVACP	Aviation gasoline consumed by the transportation sector.	2012	64 Thousand barrels	5.078125
AVACV	Aviation gasoline expenditures in the transportation sector.	2012	10 Million dollars	
AVTCB	Aviation gasoline total consumption.	2012	325 Billion Btu	
AVTCD	Aviation gasoline average price, all sectors.	2012	33 Dollars per million Btu	
AVTCP	Aviation gasoline total consumption.	2012	64 Thousand barrels	
AVTCV	Aviation gasoline total expenditures.	2012	10 Million dollars	
AVTXB	Aviation gasoline total end-use consumption.	2012	325 Billion Btu	
AVTXD	Aviation gasoline average price, all end-use sectors.	2012	33 Dollars per million Btu	
AVTXP	Aviation gasoline total end-use consumption.	2012	64 Thousand barrels	
AVTXV	Aviation gasoline total end-use expenditures.	2012	10 Million dollars	
BMTCB	Biomass total consumption	2012	66994 Billion Btu	
CLACB	Coal consumed by the transportation sector.	2012	0 Billion Btu	
CLACD	Coal price in the transportation sector.	2012	0 Dollars per million Btu	
CLACK	Factor for converting coal consumed by the transportation sector from physical units to Btu.	2012	0 Million Btu per short ton	
CLACP	Coal consumed by the transportation sector.	2012	0 Thousand short tons	
CLACV	Coal expenditures in the transportation sector.	2012	0 Million dollars	
CLCCB	Coal consumed by the commercial sector.	2012	0 Billion Btu	
CLCCD	Coal price in the commercial sector.	2012	0 Dollars per million Btu	
CLCCP	Coal consumed by the commercial sector.	2012	0 Thousand short tons	
CLCCV	Coal expenditures in the commercial sector.	2012	0 Million dollars	



CLEIB	Coal consumed by the electric power sector.	2012	25589	Billion Btu	
CLEID	Coal price in the electric power sector.	2012	4	Dollars per million Btu	
CLEIK	Factor for converting coal consumed by the electric power sector from physical units to Btu.	2012	25	Million Btu per short ton	
CLEIP	Coal consumed by the electric power sector.	2012	1007	Thousand short tons	25.411122
CLEIV	Coal expenditures in the electric power sector.	2012	103	Million dollars	
CLHCK	Factor for converting coal consumed by the residential and commercial sectors from physical units	2012	0	Million Btu per short ton	
CLICB	Coal consumed by the industrial sector.	2012	0	Billion Btu	
CLICD	Coal price in the industrial sector.	2012	0	Dollars per million Btu	
CLICP	Coal consumed by the industrial sector.	2012	0	Thousand short tons	
CLICV	Coal expenditures in the industrial sector.	2012	0	Million dollars	
CLKCB	Coal consumed at coke plants (coking coal).	2012	0	Billion Btu	
CLKCD	Coal price at coke plants.	2012	0	Dollars per million Btu	
CLKCK	Factor for converting coal carbonized at coke plants from physical units to Btu.	2012	0	Million Btu per short ton	
CLKCP	Coal consumed at coke plants (coking coal).	2012	0	Thousand short tons	
CLKCV	Coal expenditures at coke plants.	2012	0	Million dollars	
CLOCB	Coal consumed by industrial users other than coke plants.	2012	0	Billion Btu	
CLOCD	Coal price in the industrial sector other than coke plants.	2012	0	Dollars per million Btu	
CLOCK	Factor for converting coal consumed by industrial users other than coke plants from physical units	2012	0	Million Btu per short ton	
CLOCP	Coal consumed by industrial users other than coke plants.	2012	0	Thousand short tons	
CLOCV	Coal expenditures in the industrial sector other than coke plants.	2012	0	Million dollars	
CLOSB	Coal consumed by the industrial sector excluding refinery fuel.	2012	0	Billion Btu	
CLPRB	Coal production.	2012	0	Billion Btu	
CLPRK	Factor for converting coal production from physical units to Btu.	2012	0	Million Btu per short ton	
CLPRP	Coal production.	2012	0	Thousand short tons	
CLRCB	Coal consumed by the residential sector.	2012	0	Billion Btu	
CLRCD	Coal price in the residential sector.	2012	0	Dollars per million Btu	
CLRCP	Coal consumed by the residential sector.	2012	0	Thousand short tons	
CLRCV	Coal expenditures in the residential sector.	2012	0	Million dollars	
CLRFB	Coal consumed as refinery fuel.	2012	0	Billion Btu	
CLTCB	Coal total consumption.	2012	25589	Billion Btu	
CLTCD	Coal average price, all sectors.	2012	4	Dollars per million Btu	
CLTCP	Coal total consumption.	2012	1007	Thousand short tons	
CLTCV	Coal total expenditures.	2012	103	Million dollars	
CLTXB	Coal total end-use consumption.	2012	0	Billion Btu	
CLTXD	Coal average price, all end-use sectors.	2012	0	Dollars per million Btu	
CLTXP	Coal total end-use consumption.	2012	0	Thousand barrels	
CLTXV	Coal total end-use expenditures.	2012	0	Million dollars	
CLXCD	Coal average price for all sectors excluding refinery fuel.	2012	4	Dollars per million Btu	
CLXCV	Coal expenditures for all sectors excluding refinery fuel.	2012	103	Million dollars	
COICB	Crude oil consumed by the industrial sector.	2012	0	Billion Btu	

COICP	Crude oil consumed by the industrial sector.	2012	0	Thousand barrels	
COPRK	Factor for converting crude oil production from physical units to Btu.	2012	0	Million Btu per barrel	
DFACB	Distillate fuel oil consumed by the transportation sector.	2012	118430	Billion Btu	
DFACD	Distillate fuel oil price in the transportation sector.	2012	27	Dollars per million Btu	
DFACP	Distillate fuel oil consumed by the transportation sector.	2012	20331	Thousand barrels	5.8250947
DFACV	Distillate fuel oil expenditures in the transportation sector.	2012	3237	Million dollars	
DFCCB	Distillate fuel oil consumed by the commercial sector.	2012	11017	Billion Btu	
DFCCD	Distillate fuel oil price in the commercial sector.	2012	25	Dollars per million Btu	
DFCCP	Distillate fuel oil consumed by the commercial sector.	2012	1891	Thousand barrels	5.826018
DFCCV	Distillate fuel oil expenditures in the commercial sector.	2012	283	Million dollars	
DFEIB	Distillate fuel oil consumed by the electric power sector.	2012	253	Billion Btu	
DFEID	Distillate fuel oil price in the electric power sector.	2012	23	Dollars per million Btu	
DFEIP	Distillate fuel oil consumed by the electric power sector.	2012	43	Thousand barrels	5.8837209
DFEIV	Distillate fuel oil expenditures in the electric power sector.	2012	6	Million dollars	
DFICB	Distillate fuel oil consumed by the industrial sector.	2012	11073	Billion Btu	
DFICD	Distillate fuel oil price in the industrial sector.	2012	25	Dollars per million Btu	
DFICP	Distillate fuel oil consumed by the industrial sector.	2012	1901	Thousand barrels	5.824829
DFICV	Distillate fuel oil expenditures in the industrial sector.	2012	278	Million dollars	
DFISB	Distillate fuel oil consumed by the industrial sector excluding refinery fuel.	2012	11070	Billion Btu	
DFRCB	Distillate fuel oil consumed by the residential sector.	2012	24479	Billion Btu	
DFRCD	Distillate fuel oil price in the residential sector.	2012	29	Dollars per million Btu	
DFRCP	Distillate fuel oil consumed by the residential sector.	2012	4202	Thousand barrels	5.8255593
DFRCV	Distillate fuel oil expenditures in the residential sector.	2012	728	Million dollars	
DFRFB	Distillate fuel oil consumed as refinery fuel.	2012	3	Billion Btu	
DFTCB	Distillate fuel oil total consumption.	2012	165251	Billion Btu	
DFTCD	Distillate fuel oil average price, all sectors.	2012	27	Dollars per million Btu	
DFTCP	Distillate fuel oil total consumption.	2012	28369	Thousand barrels	
DFTCV	Distillate fuel oil total expenditures.	2012	4532	Million dollars	
DFTXB	Distillate fuel oil total end-use consumption.	2012	164998	Billion Btu	
DFTXD	Distillate fuel oil average price, all end-use sectors.	2012	27	Dollars per million Btu	
DFTXP	Distillate fuel oil total end-use consumption.	2012	28326	Thousand barrels	
DFTXV	Distillate fuel oil total end-use expenditures.	2012	4526	Million dollars	
DKEIB	Distillate fuel oil and kerosene-type jet fuel consumed by the electric power sector.	2012	253	Billion Btu	
DKEID	Distillate fuel oil and kerosene-type jet fuel average price in the electric power sector.	2012	23	Dollars per million Btu	
DKEIP	Distillate fuel oil and kerosene-type jet fuel consumed by the electric power sector.	2012	43	Thousand barrels	
DKEIV	Distillate fuel oil and kerosene-type jet fuel expenditures in the electric power sector.	2012	6	Million dollars	
ELEXB	Electricity exported from the United States.	2012	0	Billion Btu	
ELEXD	Electricity exports average price.	2012	0	Dollars per million Btu	
ELEXP	Electricity exported from the United States.	2012	0	Million kilowatthours	
ELEXV	Electricity exports expenditures.	2012	0	Million dollars	

ELIMB	Electricity imported into the United States.	2012	0 Billion Btu	
ELIMD	Electricity imports average price.	2012	0 Dollars per million Btu	
ELIMP	Electricity imported into the United States.	2012	0 Million kilowatthours	
ELIMV	Electricity imports expenditures.	2012	0 Million dollars	
ELISB	Net interstate flow of electricity and associated losses (negative and positive values).	2012	166913 Billion Btu	
ELISP	Net interstate flow of of electricity.	2012	16284 Million kilowatthours	
ELNIB	Net imports of electricity into the United States.	2012	0 Billion Btu	
ELNIP	Net imports of electricity into the United States.	2012	0 Million kilowatthours	
EMACB	Fuel ethanol, excluding denaturant, consumed by the transportation sector.	2012	37263 Billion Btu	
EMCCB	Fuel ethanol, excluding denaturant, consumed by the commercial sector	2012	26 Billion Btu	
EMFDB	Biomass inputs (feedstock) for the production of fuel ethanol.	2012	0 Billion Btu	
EMICB	Fuel ethanol, excluding denaturant, consumed by the industrial sector.	2012	387 Billion Btu	
EMLCB	Energy losses and co-products from the production of fuel ethanol.	2012	0 Billion Btu	
EMTCB	Fuel ethanol, excluding denaturant, total consumption.	2012	37675 Billion Btu	
ENACP	Fuel ethanol, including denaturant, consumed by the transportation sector.	2012	10743 Thousand barrels	3.4685842
ENCCP	Fuel ethanol, including denaturant, consumed by the commercial sector.	2012	7 Thousand barrels	3.7142857
ENICP	Fuel ethanol, including denaturant, consumed by the industrial sector.	2012	111 Thousand barrels	3.4864865
ENPRP	Fuel ethanol production, including denaturant.	2012	0 Thousand barrels	
ENTCP	Fuel ethanol, including denaturant, total consumption.	2012	10862 Thousand barrels	
ESACB	Electricity consumed by (i.e., sold to) the transportation sector.	2012	980 Billion Btu	
ESACD	Electricity price in the transportation sector.	2012	28 Dollars per million Btu	
ESACP	Electricity consumed by (i.e., sold to) the transportation sector.	2012	287 Million kilowatthours	
ESACV	Electricity expenditures in the transportation sector.	2012	28 Million dollars	
ESCCB	Electricity consumed by (i.e., sold to) the commercial sector.	2012	131273 Billion Btu	
ESCCD	Electricity price in the commercial sector.	2012	37 Dollars per million Btu	
ESCCP	Electricity consumed by (i.e., sold to) the commercial sector.	2012	38474 Million kilowatthours	
ESCCV	Electricity expenditures in the commercial sector.	2012	4910 Million dollars	
ESICB	Electricity consumed by (i.e., sold to) the industrial sector.	2012	26485 Billion Btu	
ESICD	Electricity price in the industrial sector.	2012	30 Dollars per million Btu	
ESICP	Electricity consumed by (i.e., sold to) the industrial sector.	2012	7762 Million kilowatthours	
ESICV	Electricity expenditures in the industrial sector.	2012	789 Million dollars	
ESISB	Electricity sales to the industrial sector excluding refinery use.	2012	25599 Billion Btu	
ESRCB	Electricity consumed by (i.e., sold to) the residential sector.	2012	97798 Billion Btu	
ESRCD	Electricity price in the residential sector.	2012	46 Dollars per million Btu	
ESRCP	Electricity consumed by (i.e., sold to) the residential sector.	2012	28663 Million kilowatthours	
ESRCV	Electricity expenditures in the residential sector.	2012	4523 Million dollars	
ESRFB	Electricity consumed by refineries.	2012	886 Billion Btu	
ESTCB	Electricity total consumption (i.e., sold).	2012	256536 Billion Btu	
ESTCD	Electricity average price, all sectors.	2012	40 Dollars per million Btu	
ESTCP	Electricity total consumption (i.e., sold).	2012	75186 Million kilowatthours	

ESTCV	Electricity total expenditures.	2012	10250	Million dollars	
ESTXB	Electricity total end-use consumption (i.e., sold).	2012	256536	Billion Btu	
ESTXD	Electricity average price, all end-use sectors.	2012	40	Dollars per million Btu	
ESTXP	Electricity total end-use consumption (i.e., sold).	2012	75186	Million kilowatthours	
ESTXV	Electricity total end-use expenditures.	2012	10250	Million dollars	
FFTCB	Fossil fuels, total consumption.	2012	1670464	Billion Btu	
FNICB	Petrochemical feedstocks, naphtha, less than 401o F, consumed by the industrial sector.	2012	0	Billion Btu	
FNICD	Petrochemical feedstocks, naphtha less than 401 F, price in the industrial sector.	2012	0	Dollars per million Btu	
FNICP	Petrochemical feedstocks, naphtha less than 401o F, consumed by the industrial sector.	2012	0	Thousand barrels	
FNICV	Petrochemical feedstocks, naphtha less than 401 F, expenditures in the industrial sector.	2012	0	Million dollars	
FOICB	Petrochemical feedstocks, other oils equal to or greater than 401o F, consumed by the industrial se	2012	0	Billion Btu	
FOICD	Petrochemical feedstocks, other oils equal to or greater than 401o F, price in the industrial sector.	2012	0	Dollars per million Btu	
FOICP	Petrochemical feedstocks, other oils equal to or greater than 401o F, consumed by the industrial se	2012	0	Thousand barrels	
FOICV	Petrochemical feedstocks, other oils equal to or greater than 401o F, expenditures in the industrial	2012	0	Million dollars	
FSICB	Petrochemical feedstocks, still gas, consumed by the industrial sector.	2012	0	Billion Btu	
FSICD	Petrochemical feedstocks, still gas, price in the industrial sector.	2012	0	Dollars per million Btu	
FSICP	Petrochemical feedstocks, still gas, consumed by the industrial sector.	2012	0	Thousand barrels	
FSICV	Petrochemical feedstocks, still gas, expenditures in the industrial sector.	2012	0	Million dollars	
GDPRV	Current-dollar gross domestic product.	2012	508003	Million dollars	
GDPRX	Real gross domestic product.	2012	438173	Million chained (2005) dollars	
GECCB	Geothermal energy consumed by the commercial sector.	2012	0	Billion Btu	
GEEGB	Geothermal energy consumed for electricity generation by the electric power sector.	2012	0	Billion Btu	
GEEGP	Geothermal electricity net generation in the electric power sector.	2012	0	Million kilowatthours	
GEICB	Geothermal energy consumed by the industrial sector.	2012	0	Billion Btu	
GERCB	Geothermal energy consumed by the residential sector.	2012	466	Billion Btu	
GETCB	Geothermal energy, total consumed.	2012	466	Billion Btu	
GETXB	Geothermal energy, total end-use consumption.	2012	466	Billion Btu	
HYCCB	Hydropower consumed by the commercial sector.	2012	0	Billion Btu	
HYCCP	Hydroelectricity net generation in the commercial sector.	2012	0	Million kilowatthours	
HYEGB	Hydropower consumed for electricity generation by the electric power sector.	2012	102	Billion Btu	
HYEGP	Hydroelectricity net generation in the electric power sector.	2012	11	Million kilowatthours	37533.54
HYICB	Hydropower consumed by the industrial sector.	2012	0	Billion Btu	
HYICP	Hydroelectricity net generation in the industrial sector.	2012	0	Million kilowatthours	
HYTCB	Hydropower, total consumed.	2012	102	Billion Btu	
HYTCP	Hydroelectricity, total net generation.	2012	11	Million kilowatthours	
HYTXB	Hydropower, total end-use consumption.	2012	0	Billion Btu	
HYTXP	Hydroelectricity net generation, total end-use sectors.	2012	0	Million kilowatthours	
JFACB	Jet fuel consumed by the transportation sector.	2012	179233	Billion Btu	
JFACD	Jet fuel price in the transportation sector.	2012	23	Dollars per million Btu	
JFACP	Jet fuel consumed by the transportation sector.	2012	31611	Thousand barrels	5.6699567

JFACV	Jet fuel expenditures in the transportation sector.	2012	4122	Million dollars	
JFTCB	Jet fuel total consumption.	2012	179233	Billion Btu	
JFTCD	Jet fuel average price, all sectors.	2012	23	Dollars per million Btu	
JFTCP	Jet fuel total consumption.	2012	31611	Thousand barrels	
JFTCV	Jet fuel total expenditures.	2012	4122	Million dollars	
JFTXB	Jet fuel total end-use consumption.	2012	179233	Billion Btu	
JFTXD	Jet fuel average price, all end-use sectors.	2012	23	Dollars per million Btu	
JFTXP	Jet fuel total end-use consumption.	2012	31611	Thousand barrels	
JFTXV	Jet fuel total end-use expenditures.	2012	4122	Million dollars	
JKACB	Kerosene-type jet fuel consumed by the transportation sector.	2012	179233	Billion Btu	
JKACP	Kerosene-type jet fuel consumed by the transportation sector.	2012	31611	Thousand barrels	
JKTCB	Kerosene-type jet fuel total consumption.	2012	179233	Billion Btu	
JKTCP	Kerosene-type jet fuel total consumption.	2012	31611	Thousand barrels	
JNACB	Naphtha-type jet fuel consumed by the transportation sector.	2012	0	Billion Btu	
JNACP	Naphtha-type jet fuel consumed by the transportation sector.	2012	0	Thousand barrels	
JNTCB	Naphtha-type jet fuel total consumption.	2012	0	Billion Btu	
JNTCP	Naphtha-type jet fuel total consumption.	2012	0	Thousand barrels	
KSCCB	Kerosene consumed by the commercial sector.	2012	14	Billion Btu	
KSCCD	Kerosene price in the commercial sector.	2012	30	Dollars per million Btu	
KSCCP	Kerosene consumed by the commercial sector.	2012	3	Thousand barrels	4.6666667
KSCCV	Kerosene expenditures in the commercial sector.	2012	0	Million dollars	
KSICB	Kerosene consumed by the industrial sector.	2012	83	Billion Btu	
KSICD	Kerosene price in the industrial sector.	2012	25	Dollars per million Btu	
KSICP	Kerosene consumed by the industrial sector.	2012	15	Thousand barrels	5.5333333
KSICV	Kerosene expenditures in the industrial sector.	2012	2	Million dollars	
KSRCB	Kerosene consumed by the residential sector.	2012	60	Billion Btu	
KSRCD	Kerosene price in the residential sector.	2012	30	Dollars per million Btu	
KSRCP	Kerosene consumed by the residential sector.	2012	11	Thousand barrels	5.4545455
KSRCV	Kerosene expenditures in the residential sector.	2012	1	Million dollars	
KSTCB	Kerosene total consumption.	2012	157	Billion Btu	
KSTCD	Kerosene average price, all sectors.	2012	28	Dollars per million Btu	
KSTCP	Kerosene total consumption.	2012	28	Thousand barrels	
KSTCV	Kerosene total expenditures.	2012	4	Million dollars	
KSTXB	Kerosene total end-use consumption.	2012	157	Billion Btu	
KSTXD	Kerosene average price, all end-use sectors.	2012	28	Dollars per million Btu	
KSTXP	Kerosene total end-use consumption.	2012	28	Thousand barrels	
KSTXV	Kerosene total end-use expenditures.	2012	4	Million dollars	
LGACB	LPG consumed by the transportation sector.	2012	437	Billion Btu	
LGACD	LPG price in the transportation sector.	2012	24	Dollars per million Btu	
LGACP	LPG consumed by the transportation sector.	2012	114	Thousand barrels	3.8333333

LGACV	LPG expenditures in the transportation sector.	2012	10 Million dollars	
LGCCB	LPG consumed by the commercial sector.	2012	1386 Billion Btu	
LGCCD	LPG price in the commercial sector.	2012	24 Dollars per million Btu	
LGCCP	LPG consumed by the commercial sector.	2012	361 Thousand barrels	3.8393352
LGCCV	LPG expenditures in the commercial sector.	2012	34 Million dollars	
LGICB	LPG consumed by the industrial sector.	2012	1265 Billion Btu	
LGICD	LPG price in the industrial sector.	2012	30 Dollars per million Btu	
LGICP	LPG consumed by the industrial sector.	2012	365 Thousand barrels	3.4657534
LGICV	LPG expenditures in the industrial sector.	2012	38 Million dollars	
LGISB	LPG consumed in the industrial sector excluding refinery fuel.	2012	1265 Billion Btu	
LGRCB	LPG consumed by the residential sector.	2012	4092 Billion Btu	
LGRCD	LPG price in the residential sector.	2012	37 Dollars per million Btu	
LGRCP	LPG consumed by the residential sector.	2012	1067 Thousand barrels	3.8350515
LGRCV	LPG expenditures in the residential sector.	2012	153 Million dollars	
LGRFB	LPG consumed as refinery fuel.	2012	0 Billion Btu	
LGTCB	LPG total consumption.	2012	7180 Billion Btu	
LGTCD	LPG average price, all sectors.	2012	33 Dollars per million Btu	
LGTCP	LPG total consumption.	2012	1907 Thousand barrels	
LGTCV	LPG total expenditures.	2012	237 Million dollars	
LGTXB	LPG total end-use consumption.	2012	7180 Billion Btu	
LGTXD	LPG average price, all end-use sectors.	2012	33 Dollars per million Btu	
LGTXP	LPG total end-use consumption.	2012	1907 Thousand barrels	
LGTXV	LPG total end-use expenditures.	2012	237 Million dollars	
LOACB	The transportation sector's share of electrical system energy losses.	2012	2031 Billion Btu	
LOCCB	The commercial sector's share of electrical system energy losses.	2012	272121 Billion Btu	
LOICB	The industrial sector's share of electrical system energy losses.	2012	54902 Billion Btu	
LORCB	The residential sector's share of electrical system energy losses.	2012	202729 Billion Btu	
LOTCB	Total electrical system energy losses.	2012	531782 Billion Btu	
LOTXB	Total electrical system energy losses allocated to the end-use sectors.	2012	531782 Billion Btu	
LUACB	Lubricants consumed by the transportation sector.	2012	3099 Billion Btu	
LUACD	Lubricants price in the transportation sector.	2012	72 Dollars per million Btu	
LUACP	Lubricants consumed by the transportation sector.	2012	511 Thousand barrels	6.0645793
LUACV	Lubricants expenditures in the transportation sector.	2012	223 Million dollars	
LUICB	Lubricants consumed by the industrial sector.	2012	7211 Billion Btu	
LUICD	Lubricants price in the industrial sector.	2012	72 Dollars per million Btu	
LUICP	Lubricants consumed by the industrial sector.	2012	1189 Thousand barrels	
LUICV	Lubricants expenditures in the industrial sector.	2012	520 Million dollars	
LUTCB	Lubricants total consumption.	2012	10310 Billion Btu	
LUTCD	Lubricants average price, all sectors.	2012	72 Dollars per million Btu	
LUTCP	Lubricants total consumption.	2012	1700 Thousand barrels	

LUTCV	Lubricants average price, all sectors.	2012	743	Million dollars	
LUTXB	Lubricants total end-use consumption.	2012	10310	Billion Btu	
LUTXD	Lubricants average price, all end-use sectors.	2012	72	Dollars per million Btu	
LUTXP	Lubricants total end-use consumption.	2012	1700	Thousand barrels	
LUTXV	Lubricants total end-use expenditures.	2012	743	Million dollars	
MBICB	Motor gasoline blending components consumed by the industrial sector.	2012	0	Billion Btu	
MBICP	Motor gasoline blending components consumed by the industrial sector.	2012	0	Thousand barrels	
MGACB	Motor gasoline consumed by the transportation sector.	2012	495078	Billion Btu	
MGACD	Motor gasoline price in the transportation sector.	2012	28	Dollars per million Btu	
MGACP	Motor gasoline consumed by the transportation sector.	2012	94861	Thousand barrels	5.2189836
MGACV	Motor gasoline expenditures in the transportation sector.	2012	14049	Million dollars	
MGCCB	Motor gasoline consumed by the commercial sector.	2012	341	Billion Btu	
MGCCD	Motor gasoline price in the commercial sector.	2012	28	Dollars per million Btu	
MGCCP	Motor gasoline consumed by the commercial sector.	2012	65	Thousand barrels	5.2461538
MGCCV	Motor gasoline expenditures in the commercial sector.	2012	9	Million dollars	
MGICB	Motor gasoline consumed by the industrial sector.	2012	5138	Billion Btu	
MGICD	Motor gasoline price in the industrial sector.	2012	28	Dollars per million Btu	
MGICP	Motor gasoline consumed by the industrial sector.	2012	985	Thousand barrels	5.2162437
MGICV	Motor gasoline expenditures in the industrial sector.	2012	145	Million dollars	
MGTCB	Motor gasoline total consumption.	2012	500558	Billion Btu	
MGTCD	Motor gasoline average price, all sectors.	2012	28	Dollars per million Btu	
MGTCP	Motor gasoline total consumption.	2012	95911	Thousand barrels	
MGTCV	Motor gasoline total expenditures.	2012	14204	Million dollars	
MGTPV	Motor gasoline expenditures per capita.	2012	1601	Dollars	
MGTXB	Motor gasoline total end-use consumption.	2012	500558	Billion Btu	
MGTXD	Motor gasoline average price, all end-use sectors.	2012	28	Dollars per million Btu	
MGTXP	Motor gasoline total end-use consumption.	2012	95911	Thousand barrels	
MGTXV	Motor gasoline total end-use expenditures.	2012	14204	Million dollars	
MMTCB	Motor gasoline total consumption excluding fuel ethanol.	2012	462882	Billion Btu	
MSICB	Miscellaneous petroleum products consumed by the industrial sector.	2012	5058	Billion Btu	
MSICD	Miscellaneous petroleum products price in the industrial sector.	2012	32	Dollars per million Btu	
MSICP	Miscellaneous petroleum products consumed by the industrial sector.	2012	873	Thousand barrels	5.7938144
MSICV	Miscellaneous petroleum products expenditures in the industrial sector.	2012	163	Million dollars	
NAICB	Natural gasoline consumed by the industrial sector.	2012	0	Billion Btu	
NAICP	Natural gasoline consumed by the industrial sector.	2012	0	Thousand barrels	
NGACB	Natural gas consumed by the transportation sector.	2012	4928	Billion Btu	
NGACD	Natural gas price in the transportation sector.	2012	14	Dollars per million Btu	
NGACP	Natural gas consumed by the transportation sector.	2012	4794	Million cubic feet	1.0279516
NGACV	Natural gas expenditures in the transportation sector.	2012	2	Million dollars	
NGCCB	Natural gas consumed by (delivered to) the commercial sector (including supplemental gaseous fu	2012	179510	Billion Btu	

NGCCD	Natural gas price in the commercial sector (including supplemental gaseous fuels).	2012	8	Dollars per million Btu	
NGCCP	Natural gas consumed by (delivered to) the commercial sector (including supplemental gaseous fuels).	2012	174641	Million cubic feet	1.0278801
NGCCV	Natural gas expenditures in the commercial sector (including supplemental gaseous fuels).	2012	1484	Million dollars	
NGEIB	Natural gas consumed by the electric power sector (including supplemental gaseous fuels).	2012	233514	Billion Btu	
NGEID	Natural gas price in the electric power sector (including supplemental gaseous fuels).	2012	3	Dollars per million Btu	
NGEIK	Factor for converting natural gas consumed by the electric power sector from physical units to Btu.	2012	1	Thousand Btu per cubic foot	
NGEIP	Natural gas consumed by the electric power sector (including supplemental gaseous fuels).	2012	226469	Million cubic feet	1.031108
NGEIV	Natural gas expenditures in the electric power sector (including supplemental gaseous fuels).	2012	822	Million dollars	
NGICB	Natural gas consumed by (delivered to) the industrial sector (including supplemental gaseous fuels).	2012	56312	Billion Btu	
NGICD	Natural gas price in the industrial sector (including supplemental gaseous fuels).	2012	7	Dollars per million Btu	
NGICP	Natural gas consumed by (delivered to) the industrial sector (including supplemental gaseous fuels).	2012	54785	Million cubic feet	1.0278726
NGICV	Natural gas expenditures in the industrial sector (including supplemental gaseous fuels).	2012	391	Million dollars	
NGISB	Natural gas consumed by the industrial sector excluding refinery fuel (including supplemental gaseous fuels).	2012	51124	Billion Btu	
NGLPB	Natural gas consumed as lease and plant fuel.	2012	0	Billion Btu	
NGLPP	Natural gas consumed as lease and plant fuel.	2012	0	Million cubic feet	
NGMPB	Natural gas marketed production.	2012	0	Billion Btu	
NGMPK	Conversion factor for natural gas marketed production.	2012	0	Thousand Btu per cubic foot	
NGMPP	Natural gas marketed production.	2012	0	Million cubic feet	
NGPZB	Natural gas for pipeline and distribution use.	2012	4731	Billion Btu	
NGPZP	Natural gas for pipeline and distribution use.	2012	4603	Million cubic feet	
NGRCB	Natural gas consumed by (delivered to) the residential sector (including supplemental gaseous fuels).	2012	196706	Billion Btu	1.0278778
NGRCD	Natural gas price in the residential sector (including supplemental gaseous fuels).	2012	10	Dollars per million Btu	
NGRCP	Natural gas consumed by (delivered to) the residential sector (including supplemental gaseous fuels).	2012	191371	Million cubic feet	
NGRCV	Natural gas expenditures in the residential sector (including supplemental gaseous fuels).	2012	2122	Million dollars	
NGRFB	Natural gas consumed as refinery fuel (including supplemental gaseous fuels).	2012	5189	Billion Btu	
NGTCB	Natural gas total consumption (including supplemental gaseous fuels).	2012	670970	Billion Btu	
NGTCD	Natural gas average price, all sectors (including supplemental gaseous fuels).	2012	7	Dollars per million Btu	
NGTCK	Factor for converting natural gas total consumption from physical units to Btu.	2012	1	Thousand Btu per cubic foot	
NGTCP	Natural gas total consumption (including supplemental gaseous fuels).	2012	652060	Million cubic feet	
NGTCV	Natural gas total expenditures (including supplemental gaseous fuels).	2012	4823	Million dollars	
NGTXB	Natural gas total end-use consumption (including supplemental gaseous fuels).	2012	437456	Billion Btu	
NGTXD	Natural gas average price, all end-use sectors (including supplemental gaseous fuels).	2012	9	Dollars per million Btu	
NGTXK	Factor for converting natural gas consumed by all sectors other than electric power from physical units to Btu.	2012	1	Thousand Btu per cubic foot	
NGTXP	Natural gas total end-use consumption (including supplemental gaseous fuels).	2012	425591	Million cubic feet	
NGTXV	Natural gas total end-use expenditures (including supplemental gaseous fuels).	2012	4000	Million dollars	
NGVHB	Natural gas consumed as vehicle fuel.	2012	196	Billion Btu	
NGVHP	Natural gas consumed as vehicle fuel.	2012	191	Million cubic feet	
NNACB	Natural gas consumed by the transportation sector. (Code used in SEDS 2006.)	2012	4928	Billion Btu	
NNCCB	Natural gas consumed by (delivered to) the commercial sector (excluding supplemental gaseous fuels).	2012	179471	Billion Btu	
NNEIB	Natural gas consumed by the electric power sector (excluding supplemental gaseous fuels). (Code used in SEDS 2006.)	2012	233464	Billion Btu	



NNICB	Natural gas consumed by (delivered to) the industrial sector (excluding supplemental gaseous fuel)	2012	56300	Billion Btu	
NNRCB	Natural gas consumed by (delivered to) the residential sector (excluding supplemental gaseous fuel)	2012	196664	Billion Btu	
NNTCB	Natural gas total consumption (excluding supplemental gaseous fuels).	2012	670827	Billion Btu	
NUEGB	Nuclear energy consumed for electricity generation by the electric power sector.	2012	346962	Billion Btu	
NUEGD	Nuclear fuel price in the electric power sector.	2012	0	Dollars per million Btu	
NUEGP	Nuclear electricity net generation in the electric power sector.	2012	33110	Million kilowatthours	112975955
NUEGV	Nuclear fuel expenditures in the electric power sector.	2012	246	Million dollars	
NUETB	Nuclear electric power consumed.	2012	346962	Billion Btu	
NUETD	Nuclear fuel average price, all sectors.	2012	0	Dollars per million Btu	
NUETP	Nuclear electricity, total net generation.	2012	33110	Million kilowatthours	
NUETV	Nuclear fuel total expenditures.	2012	246	Million dollars	
P1ICB	Asphalt and road oil, kerosene, lubricants, and "other petroleum products" consumed by the industrial sector	2012	113646	Billion Btu	
P1ICD	Asphalt and road oil, kerosene, lubricants, and "other petroleum products" average price in the industrial sector	2012	22	Dollars per million Btu	
P1ICP	Asphalt and road oil, kerosene, lubricants, and "other petroleum products" consumed by the industrial sector	2012	18468	Thousand barrels	
P1ICV	Asphalt and road oil, kerosene, lubricants, and "other petroleum products" expenditures in the industrial sector	2012	992	Million dollars	
P1TCB	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" total consumption	2012	117144	Billion Btu	
P1TCD	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" average price	2012	25	Dollars per million Btu	
P1TCP	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" total consumption	2012	19057	Thousand barrels	
P1TCV	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" total expenditures	2012	1229	Million dollars	
P1TXB	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" total consumption	2012	117144	Billion Btu	
P1TXD	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" average price	2012	25	Dollars per million Btu	
P1TXP	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" total consumption	2012	19057	Thousand barrels	
P1TXV	Asphalt and road oil, aviation gasoline, kerosene, lubricants, and "other petroleum products" total expenditures	2012	1229	Million dollars	
P5RFB	Other petroleum products (SG and PC consumed as process fuel and AB, MB, PP, and UO consumed as fuel)	2012	68839	Billion Btu	
PAACB	All petroleum products consumed by the transportation sector.	2012	836885	Billion Btu	
PAACD	All petroleum products average price in the transportation sector.	2012	26	Dollars per million Btu	
PAACP	All petroleum products consumed by the transportation sector.	2012	153899	Thousand barrels	
PAACV	All petroleum products total expenditures in the transportation sector.	2012	22402	Million dollars	
PACCB	All petroleum products consumed by the commercial sector.	2012	13028	Billion Btu	
PACCD	All petroleum products average price in the commercial sector.	2012	25	Dollars per million Btu	
PACCP	All petroleum products consumed by the commercial sector.	2012	2363	Thousand barrels	
PACCV	All petroleum products total expenditures in the commercial sector.	2012	332	Million dollars	
PAEIB	All petroleum products consumed by the electric power sector.	2012	345	Billion Btu	
PAEID	All petroleum products average price in the electric power sector.	2012	23	Dollars per million Btu	
PAEIP	All petroleum products consumed by the electric power sector.	2012	58	Thousand barrels	
PAEIV	All petroleum products total expenditures in the electric power sector.	2012	8	Million dollars	
PAICB	All petroleum products consumed by the industrial sector.	2012	132833	Billion Btu	
PAICD	All petroleum products average price in the industrial sector.	2012	23	Dollars per million Btu	
PAICP	All petroleum products consumed by the industrial sector.	2012	21991	Thousand barrels	
PAICV	All petroleum products total expenditures in the industrial sector.	2012	1486	Million dollars	

PAPRB	Crude oil production (including lease condensate).	2012	0 Billion Btu	
PAPRP	Crude oil production (including lease condensate).	2012	0 Thousand barrels	
PARCB	All petroleum products consumed by the residential sector.	2012	28631 Billion Btu	
PARCD	All petroleum products average price in the residential sector.	2012	30 Dollars per million Btu	
PARCP	All petroleum products consumed by the residential sector.	2012	5280 Thousand barrels	
PARCV	All petroleum products total expenditures in the residential sector.	2012	883 Million dollars	
PATCB	All petroleum products total consumption.	2012	1011722 Billion Btu	
PATCD	All petroleum products average price, all sectors.	2012	26 Dollars per million Btu	
PATCP	All petroleum products total consumption.	2012	183591 Thousand barrels	
PATCV	All petroleum products total expenditures.	2012	25113 Million dollars	
PATXB	All petroleum products total end-use consumption.	2012	1011377 Billion Btu	
PATXD	All petroleum products average price, all end-use sectors.	2012	26 Dollars per million Btu	
PATXP	All petroleum products total end-use consumption.	2012	183533 Thousand barrels	
PATXV	All petroleum products total end-use expenditures.	2012	25105 Million dollars	
PCCCB	Petroleum coke consumed by the commercial sector.	2012	0 Billion Btu	
PCCCD	Petroleum coke price in the commercial sector.	2012	0 Dollars per million Btu	
PCCCP	Petroleum coke consumed by the commercial sector.	2012	0 Thousand barrels	
PCCCV	Petroleum coke expenditures in the commercial sector.	2012	0 Million dollars	
PCEIB	Petroleum coke consumed by the electric power sector.	2012	0 Billion Btu	
PCEID	Petroleum coke price in the electric power sector.	2012	0 Dollars per million Btu	
PCEIP	Petroleum coke consumed by the electric power sector.	2012	0 Thousand barrels	
PCEIV	Petroleum coke expenditures in the electric power sector.	2012	0 Million dollars	
PCICB	Petroleum coke consumed by the industrial sector.	2012	25854 Billion Btu	
PCICD	Petroleum coke price in the industrial sector.	2012	4 Dollars per million Btu	
PCICP	Petroleum coke consumed by the industrial sector.	2012	4292 Thousand barrels	6.0237651
PCICV	Petroleum coke expenditures in the industrial sector.	2012	1 Million dollars	
PCISB	Petroleum coke price in the industrial sector excluding refinery fuel.	2012	321 Billion Btu	
PCRFB	Petroleum coke consumed as refinery fuel.	2012	25533 Billion Btu	
PCTCB	Petroleum coke total consumption.	2012	25854 Billion Btu	
PCTCD	Petroleum coke average price, all sectors.	2012	4 Dollars per million Btu	
PCTCP	Petroleum coke total consumption.	2012	4292 Thousand barrels	
PCTCV	Petroleum coke total expenditures.	2012	1 Million dollars	
PEACD	Primary energy average price in the transportation sector.	2012	26 Dollars per million Btu	
PEACV	Primary energy total expenditures in the transportation sector.	2012	22405 Million dollars	
PECCD	Primary energy average price in the commercial sector.	2012	9 Dollars per million Btu	
PECCV	Primary energy total expenditures in the commercial sector.	2012	1828 Million dollars	
PEEID	Primary energy average price in the electric power sector.	2012	1 Dollars per million Btu	
PEEIV	Primary energy total expenditures in the electric power sector.	2012	1207 Million dollars	
PEICD	Primary energy average price in the industrial sector.	2012	16 Dollars per million Btu	
PEICV	Primary energy total expenditures in the industrial sector.	2012	1879 Million dollars	

PERCD	Primary energy average price in the residential sector.	2012	13	Dollars per million Btu	
PERCV	Primary energy total expenditures in the residential sector.	2012	3061	Million dollars	
PETCD	Primary energy average price, all sectors.	2012	15	Dollars per million Btu	
PETCV	Primary energy total expenditures.	2012	30382	Million dollars	
PETXD	Primary energy average price, all end-use sectors.	2012	21	Dollars per million Btu	
PETXV	Primary energy total end-use expenditures.	2012	29175	Million dollars	
PLICB	Plant condensate consumed by the industrial sector.	2012	0	Billion Btu	
PLICP	Plant condensate consumed by the industrial sector.	2012	0	Thousand barrels	
PMTCB	All petroleum products total consumption excluding fuel ethanol.	2012	974047	Billion Btu	
POICB	Other petroleum products consumed by the industrial sector.	2012	75105	Billion Btu	
POICD	Other petroleum products average price in the industrial sector.	2012	30	Dollars per million Btu	
POICP	Other petroleum products consumed by the industrial sector.	2012	12556	Thousand barrels	5.9816024
POICV	Other petroleum products total expenditures in the industrial sector.	2012	193	Million dollars	
POTCB	Other petroleum products total consumption.	2012	75105	Billion Btu	
POTCD	Other petroleum products average price, all sectors.	2012	30	Dollars per million Btu	
POTCP	Other petroleum products total consumption.	2012	12556	Thousand barrels	
POTCV	Other petroleum products total expenditures.	2012	193	Million dollars	
POTXB	Other petroleum products total end-use consumption.	2012	75105	Billion Btu	
POTXD	Other petroleum products average price, all end-use sectors.	2012	30	Dollars per million Btu	
POTXP	Other petroleum products total end-use consumption.	2012	12556	Thousand barrels	
POTXV	Other petroleum products total end-use expenditures.	2012	193	Million dollars	
PPICB	Pentanes plus consumed by the industrial sector.	2012	0	Billion Btu	
PPICP	Pentanes plus consumed by the industrial sector.	2012	0	Thousand barrels	
REPRB	Renewable energy production.	2012	49861	Billion Btu	
RETCB	Renewable energy total consumption.	2012	87537	Billion Btu	
RFACB	Residual fuel oil consumed by the transportation sector.	2012	40283	Billion Btu	
RFACD	Residual fuel oil price in the transportation sector.	2012	18	Dollars per million Btu	
RFACP	Residual fuel oil consumed by the transportation sector.	2012	6407	Thousand barrels	6.287342
RFACV	Residual fuel oil expenditures in the transportation sector.	2012	748	Million dollars	
RFCCB	Residual fuel oil consumed by the commercial sector.	2012	269	Billion Btu	
RFCCD	Residual fuel oil price in the commercial sector.	2012	18	Dollars per million Btu	
RFCCP	Residual fuel oil consumed by the commercial sector.	2012	43	Thousand barrels	6.255814
RFCCV	Residual fuel oil expenditures in the commercial sector.	2012	5	Million dollars	
RFEIB	Residual fuel oil consumed by the electric power sector.	2012	92	Billion Btu	
RFEID	Residual fuel oil price in the electric power sector.	2012	22	Dollars per million Btu	
RFEIP	Residual fuel oil consumed by the electric power sector.	2012	15	Thousand barrels	6.1333333
RFEIV	Residual fuel oil expenditures in the electric power sector.	2012	2	Million dollars	
RFICB	Residual fuel oil consumed by the industrial sector.	2012	1711	Billion Btu	
RFICD	Residual fuel oil price in the industrial sector.	2012	18	Dollars per million Btu	
RFICP	Residual fuel oil consumed by the industrial sector	2012	272	Thousand barrels	6.2904412

RFICV	Residual fuel oil expenditures in the industrial sector.	2012	30 Million dollars
RFISB	Residual fuel oil consumed by the industrial sector excluding refinery fuel.	2012	1661 Billion Btu
RFRFB	Residual fuel oil consumed as refinery fuel.	2012	51 Billion Btu
RFTCB	Residual fuel oil total consumption.	2012	42356 Billion Btu
RFTCD	Residual fuel oil average price, all sectors.	2012	18 Dollars per million Btu
RFTCP	Residual fuel oil total consumption.	2012	6737 Thousand barrels
RFTCV	Residual fuel oil total expenditures.	2012	786 Million dollars
RFTXB	Residual fuel oil total end-use consumption.	2012	42264 Billion Btu
RFTXD	Residual fuel oil average price, all end-use sectors.	2012	18 Dollars per million Btu
RFTXP	Residual fuel oil total end-use consumption.	2012	6722 Thousand barrels
RFTXV	Residual fuel oil total end-use expenditures.	2012	784 Million dollars
ROPRB	Renewable energy production, other than fuel ethanol.	2012	49861 Billion Btu
SFCCB	Supplemental gaseous fuels consumed by the commercial sector.	2012	39 Billion Btu
SFEIB	Supplemental gaseous fuels consumed by the electric power sector.	2012	50 Billion Btu
SFINB	Supplemental gaseous fuels consumed by the industrial sector.	2012	12 Billion Btu
SFRCB	Supplemental gaseous fuels consumed by the residential sector.	2012	42 Billion Btu
SFTCB	Supplemental gaseous fuels total consumed.	2012	143 Billion Btu
SGICB	Still gas consumed by the industrial sector.	2012	41617 Billion Btu
SGICP	Still gas consumed by the industrial sector.	2012	6936 Thousand barrels
SNICB	Special naphthas consumed by the industrial sector.	2012	502 Billion Btu
SNICD	Special naphthas price in the industrial sector.	2012	30 Dollars per million Btu
SNICP	Special naphthas consumed by the industrial sector.	2012	96 Thousand barrels
SNICV	Special naphthas expenditures in the industrial sector.	2012	15 Million dollars
SOCCB	Photovoltaic and solar thermal energy consumed by the commercial sector (except portion included in SOEGB)	2012	354 Billion Btu
SOEGB	Photovoltaic and solar thermal energy consumed for electricity generation by the electric power sector.	2012	2530 Billion Btu
SOEGP	Photovoltaic and solar thermal electricity net generation in the electric power sector.	2012	266 Million kilowatthours
SOHCB	Distributed photovoltaic and solar thermal energy consumed by the residential, commercial, and industrial sectors.	2012	16968 Billion Btu
SOICB	Photovoltaic and solar thermal energy consumed by the industrial sector (except portion included in SOTCB)	2012	11 Billion Btu
SOTCB	Photovoltaic and solar thermal energy, total consumed.	2012	19864 Billion Btu
SOTXB	Photovoltaic and solar thermal energy, total end-use consumption.	2012	17334 Billion Btu
TEACB	Total energy consumed by the transportation sector.	2012	844824 Billion Btu
TEACD	Total energy average price in the transportation sector.	2012	26 Dollars per million Btu
TEACV	Total energy expenditures in the transportation sector.	2012	22433 Million dollars
TEAPB	Total energy consumption per capita in the transportation sector.	2012	95 Million Btu
TECCB	Total energy consumed by the commercial sector.	2012	600219 Billion Btu
TECCD	Total energy average price in the commercial sector.	2012	20 Dollars per million Btu
TECCV	Total energy expenditures in the commercial sector.	2012	6738 Million dollars
TECPB	Total energy consumption per capita in the commercial sector.	2012	68 Million Btu
TEEIB	Total energy consumed by the electric power sector.	2012	621405 Billion Btu
TEGDS	Energy expenditures as percent of current-dollar GDP.	2012	7 Percent

TEICB	Total energy consumed by the industrial sector.	2012	274440	Billion Btu	
TEICD	Total energy average price in the industrial sector.	2012	18	Dollars per million Btu	
TEICV	Total energy expenditures in the industrial sector.	2012	2668	Million dollars	
TEIPB	Total energy consumption per capita in the industrial sector.	2012	31	Million Btu	
TEPFB	Total energy used as process fuel.	2012	636643	Billion Btu	
TEPRB	Total energy production.	2012	396823	Billion Btu	
TERCB	Total energy consumed by the residential sector.	2012	552393	Billion Btu	
TERCD	Total energy average price in the residential sector.	2012	23	Dollars per million Btu	
TERCV	Total energy total expenditures in the residential sector.	2012	7585	Million dollars	
TERFB	Total energy used as refinery fuel.	2012	74967	Billion Btu	
TERPB	Total energy consumption per capita in the residential sector.	2012	62	Million Btu	
TETCB	Total energy consumption.	2012	2271875	Billion Btu	
TETCD	Total energy average price.	2012	24	Dollars per million Btu	
TETCV	Total energy expenditures.	2012	39425	Million dollars	
TETGR	Total energy consumed per dollar of real gross domestic product.	2012	5	Thousand Btu per chained (2005) dollar	
TETPB	Total energy consumption per capita.	2012	256	Million Btu	
TETPV	Total energy expenditures per capita.	2012	4446	Dollars	
TETXB	Total end-use energy consumption.	2012	2271876	Billion Btu	
TETXD	Total end-use energy average price.	2012	24	Dollars per million Btu	
TETXV	Total end-use energy expenditures.	2012	39425	Million dollars	
TNACB	Total energy consumed by the transportation sector excluding the sector's share of electrical systems.	2012	842793	Billion Btu	
TNCCB	Total energy consumed by the commercial sector excluding the sector's share of electrical systems.	2012	328098	Billion Btu	
TNICB	Total energy consumed by the industrial sector excluding the sector's share of electrical systems.	2012	219538	Billion Btu	
TNRCB	Total energy consumed by the residential sector excluding the sector's share of electrical systems.	2012	349665	Billion Btu	
TNSCB	Total primary energy and electricity consumed.	2012	1635326	Billion Btu	
TNTXB	Total primary energy and electricity consumed by the end-use sectors.	2012	1740094	Billion Btu	
TPOPP	Resident population including Armed Forces.	2012	8868	Thousand	
UOICB	Unfinished oils consumed by the industrial sector.	2012	1689	Billion Btu	
UOICP	Unfinished oils consumed by the industrial sector.	2012	290	Thousand barrels	
USICB	Unfractionated streams consumed by the industrial sector.	2012	0	Billion Btu	
USICP	Unfractionated streams consumed by the industrial sector.	2012	0	Thousand barrels	
WDCCB	Wood consumed by the commercial sector	2012	1289	Billion Btu	
WDEIB	Wood consumed by the electric power sector.	2012	0	Billion Btu	
WDICB	Wood consumed by the industrial sector.	2012	3397	Billion Btu	
WDRCB	Wood consumed by the residential sector.	2012	9137	Billion Btu	
WDRCD	Wood price in the residential sector.	2012	10	Dollars per million Btu	
WDRCP	Wood consumed by the residential sector.	2012	457	Thousand cords	19.993435
WDRCV	Wood expenditures in the residential sector.	2012	55	Million dollars	
WDRSB	Wood consumed in the residential sector at a cost.	2012	5537	Billion Btu	
WDRXB	Wood consumed in the residential sector at no cost.	2012	3600	Billion Btu	

WSCCB	Waste consumed by the commercial sector, total.	2012	2682	Billion Btu	
WSEIB	Waste consumed by the electric power sector.	2012	12301	Billion Btu	
WSICB	Waste energy consumed by the industrial sector, total.	2012	512	Billion Btu	
WWCCB	Wood and waste consumed in the commercial sector.	2012	3971	Billion Btu	
WWCCD	Wood and waste price in the commercial sector.	2012	3	Dollars per million Btu	
WWCCV	Wood and waste expenditures in the commercial sector.	2012	11	Million dollars	
WWCSB	Wood and waste consumed in the commercial sector at a cost.	2012	3464	Billion Btu	
WWCXB	Wood and waste consumed in the commercial sector at no cost.	2012	508	Billion Btu	
WWEIB	Wood and waste consumed by the electric power sector.	2012	12301	Billion Btu	
WWEID	Wood and waste price in the electric power sector.	2012	2	Dollars per million Btu	
WWEIV	Wood and waste expenditures in the electric power sector.	2012	27	Million dollars	
WWICB	Wood and waste consumed in the industrial sector, total.	2012	3909	Billion Btu	
WWICD	Wood and waste price in the industrial sector.	2012	1	Dollars per million Btu	
WWICV	Wood and waste expenditures in the industrial sector.	2012	1	Million dollars	
WWISB	Wood and waste consumed in the industrial sector at a cost.	2012	654	Billion Btu	
WWIXB	Wood and waste consumed in the industrial sector at no cost.	2012	3255	Billion Btu	
WWTCB	Wood and waste total consumed.	2012	29319	Billion Btu	
WWTCD	Wood and waste average price, all sectors.	2012	4	Dollars per million Btu	
WWTCV	Wood and waste total expenditures.	2012	96	Million dollars	
WWTXB	Wood and waste total end-use consumption.	2012	17017	Billion Btu	
WWTXD	Wood and waste average price, all end-use sectors.	2012	7	Dollars per million Btu	
WWTXV	Wood and waste total end-use expenditures.	2012	68	Million dollars	
WXICB	Waxes consumed by the industrial sector.	2012	386	Billion Btu	
WXICD	Waxes price in the industrial sector.	2012	34	Dollars per million Btu	
WXICP	Waxes consumed by the industrial sector.	2012	70	Thousand barrels	
WXICV	Waxes expenditures in the industrial sector.	2012	13	Million dollars	
WYCCB	Wind energy consumed by the commercial sector.	2012	0	Billion Btu	
WYCCP	Wind electricity net generation in the commercial sector.	2012	0	Million kilowatthours	
WYEGB	Wind energy consumed for electricity generation by the electric power sector.	2012	110	Billion Btu	
WYEGP	Wind electricity net generation in the electric power sector.	2012	12	Million kilowatthours	
WYICB	Wind energy consumed by the industrial sector.	2012	0	Billion Btu	
WYICP	Wind electricity net generation in the industrial sector.	2012	0	Million kilowatthours	
WYTCB	Wind energy, total consumed.	2012	110	Billion Btu	
WYTCP	Wind electricity, total net generation.	2012	12	Million kilowatthours	
WYTXB	Wind energy, total end-use consumption.	2012	0	Billion Btu	
WYTXP	Wind energy, total end-use net generation.	2012	0	Million kilowatthours	

Tab 4. Other Data

Electricity Supply Mix Data (from PJM)				
Generation Units are in thousands of GATS certificates (each representing a MWhR)				
	2012 PJM Gen	NJ Gen	Non-NJ Gen	Non-NJ %
Methane	2291.166	0	2291.166	0.003186346
Coal	330691.695	1897	328794.695	0.457257924
Natural Gas	149036.053	26591	122445.053	0.170285505
Hydro	6414.553	11	6403.553	0.008905482
Nuclear	273137.947	33110	240027.947	0.333809159
Distillate Fuel Oil	172.049	23.91543744	148.1335626	0.000206011
Petroleum Coke	1025.362	0	1025.362	0.001425981
Residual Fuel Oil	1368.862	9.004273193	1359.857727	0.001891167
Solar	234.424	266	-31.576	-4.3913E-05
Waste	4152.61	1174.503627	2978.106373	0.004141681
Wind	12633.476	12	12621.476	0.017552807
Wood	993.629	0	993.629	0.001381849
<b>Total</b>	<b>782151.826</b>	<b>63094.42334</b>	<b>719057.4027</b>	<b>1</b>
<p style="text-align: right;">PJM (w/O NJ) Fossil Fuel Fraction: 0.634252934</p>				
<b>Note: these percentages are used to compute the fuel mix for electricity imported into NJ (minus the NJ fleet)</b>				

Fuel Use By Vehicle Class
This information is from: <a href="http://cta.ornl.gov/data/chapter2.shtml">http://cta.ornl.gov/data/chapter2.shtml</a>

*As data about alternative fuel use become available, an attempt is made to incorporate them into this table. Sometimes assumptions must be made in order to use the data. Please see Appendix A for a description of the methodology used to develop these data. See Table 1.17 for transportation petroleum use in thousand barrels per day.*

**Table 2.5**  
**Domestic Consumption of Transportation Energy by Mode and Fuel Type, 2012<sup>a</sup>**  
**(trillion Btu)**

	Gasoline	Diesel fuel	Liquefied petroleum gas	Jet fuel	Residual fuel oil	Natural gas	Electricity	Total <sup>b</sup>
<b>HIGHWAY</b>	<b>15,493.3</b>	<b>5,755.4</b>	<b>67.8</b>	-	-	<b>19.4</b>	<b>0.6</b>	<b>21,336.6</b>
<b>Light vehicles</b>	<b>14,904.2</b>	<b>408.5</b>	<b>48.5</b>			-	<sup>c</sup>	<b>15,361.2</b>
Cars	7,080.5	40.2						7,120.6
Light trucks <sup>d</sup>	7,762.6	368.4	48.5					8,179.4
Motorcycles	61.1							61.1
<b>Buses</b>	<b>8.7</b>	<b>171.1</b>	-			<b>19.4</b>	<b>0.6</b>	<b>199.8</b>
Transit	1.6	68.0	-			19.4	0.6	89.7
Intercity		31.9						31.9
School	7.1	71.2						78.3
<b>Medium/heavy trucks</b>	<b>580.4</b>	<b>5,175.8</b>	<b>19.3</b>	-	-	-	-	<b>5,775.5</b>
Class 3-6 trucks	534.0	724.6	19.1					1,277.7
Class 7-8 trucks	46.4	4,451.2	0.2					4,497.8
<b>NONHIGHWAY</b>	<b>222.0</b>	<b>831.7</b>	-	<b>2,064.5</b>	<b>686.8</b>	<b>750.7</b>	<b>318.2</b>	<b>4,874.0</b>
<b>Air</b>	<b>27.4</b>	-	-	<b>2,064.5</b>	-	-	-	<b>2,091.9</b>
General aviation	27.4			201.4				228.8
Domestic air carriers				1,418.9				1,418.9
International air carriers <sup>e</sup>				444.2				444.2
<b>Water</b>	<b>194.7</b>	<b>305.9</b>			<b>686.8</b>			<b>1,187.4</b>
Freight		255.8			686.8			942.6
Recreational	194.7	50.1						244.8
<b>Pipeline</b>	-	-	-	-	-	<b>750.7</b>	<b>246.2</b>	<b>997.0</b>
<b>Rail</b>	-	<b>525.9</b>	-	-	-	-	<b>72.0</b>	<b>597.8</b>
Freight (Class I)		504.0						504.0
Passenger		21.8					72.0	93.8
Transit		-					47.6	47.6
Commuter		13.0					18.7	31.7
Intercity		8.7					5.7	14.4
<b>TOTAL HWY &amp; NONHWY<sup>b</sup></b>	<b>15,715.3</b>	<b>6,587.1</b>	<b>67.8</b>	<b>2,064.5</b>	<b>686.8</b>	<b>770.2</b>	<b>318.8</b>	<b>26,210.6</b>



<b>Source:</b>								
See Appendix A for Energy Use Sources.								
<sup>a</sup> Civilian consumption only. Totals may not include all possible uses of fuels for transportation (e.g., snowmobiles).								
<sup>b</sup> Totals may not sum due to rounding.								
<sup>c</sup> Data on electricity of light vehicles are not available.								
<sup>d</sup> Two-axle, four-tire trucks.								
<sup>e</sup> One half of fuel used by domestic carriers in international operation.								

	Gas	Diesel	NG
light	0.948388	0.062015	0
heavy	0.037486	0.811723	1
ships	0.012389	0.046439	
rail	0	0.079838	
air	0.001744	0	
	1.000006	1.000015	

<b>NJ In-State Electricity Generation By Fuel Type</b>	
The following EIA data is used to quantify NJ electricity generation by fuel type	

**Table 5. Electric Power Industry Generation by Primary Energy Source, 1990-2012**  
**New Jersey**

megawatthours

Item	2012	2011	2010	2009	2008	2007	2006	1990
<b>Total Electric Industry</b>	<b>65,263,408</b>	<b>64,694,096</b>	<b>65,682,494</b>	<b>61,811,239</b>	<b>63,674,789</b>	<b>62,671,245</b>	<b>60,700,139</b>	<b>39,968,833</b>
Coal	1,897,475	4,155,097	6,417,891	5,099,868	9,028,491	10,210,670	10,861,925	7,057,820
Hydroelectric	10,755	24,407	18,119	32,081	25,773	20,909	35,436	31,351
Natural Gas	28,284,904	25,201,075	24,902,230	20,624,990	20,751,755	18,752,332	15,668,374	6,914,325
Nuclear	33,110,224	33,606,447	32,771,305	34,327,954	32,194,798	32,010,376	32,567,885	23,770,387
Other	632,551	643,573	575,255	520,308	559,390	488,994	568,551	0
Other Biomass	964,821	876,111	816,317	928,206	881,736	823,166	900,792	246,058
Other Gas	142,181	139,175	106,333	169,635	158,826	160,549	110,265	0
Petroleum	70,779	165,588	235,079	278,286	325,312	452,771	269,519	2,094,968
Pumped Storage	-166,176	-196,778	-193,772	-201,714	-274,845	-268,934	-298,601	-149,547
Solar	304,326	68,878	21,084	10,707	2,669	0	0	0
Wind	11,568	10,523	12,653	20,918	20,885	20,412	15,991	0
Wood	0	0	0	0	0	0	0	3,471

Other biomass includes agricultural byproducts, landfill gas, biogenic municipal solid waste, other biomass (solid, liquid and gas) and sludge waste.

Other gases includes blast furnace gas, and other manufactured and waste gases derived from fossil fuels.

Other includes non-biogenic municipal solid waste, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, tire-derived fuels, waste heat and miscellaneous technologies.

Note: Totals may not equal sum of components because of independent rounding.

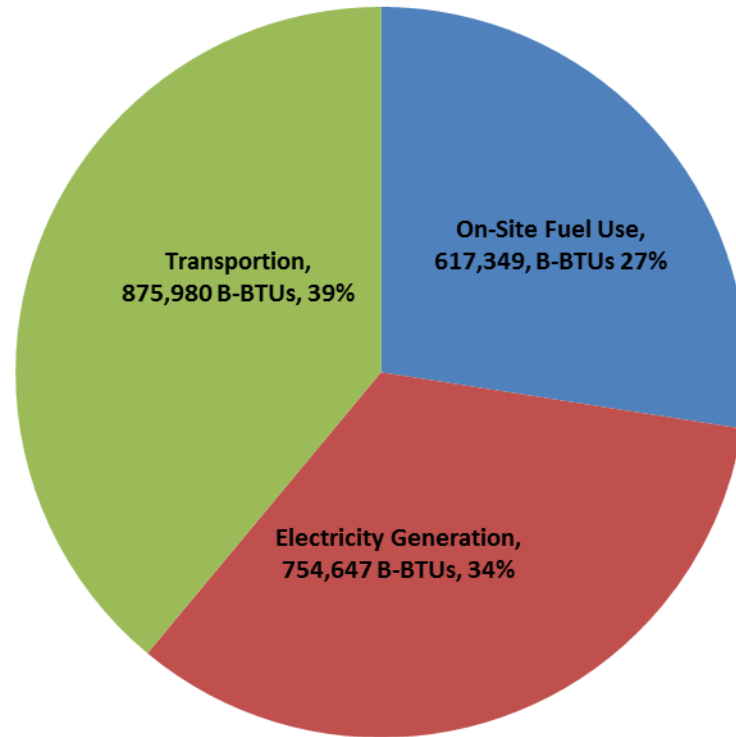
The following "intermediate calculation" consolidates the EIA data noted above into structure used by the model.

2012				
	Primary Suppl	Generation	Generation	Efficiency
	B-BTUs	MWHrs	B-BTUs	%
Coal	25,589	1,897,475	6,474	25.30%
Hydroelectric	102	10,755	37	35.98%
Natural Gas & Other Gas	233,514	28,284,904	96,512	41.33%
Nuclear	346,962	33,110,224	112,977	32.56%
Other (MSW)	12,301	632,551	2,158	17.55%
Other Biomass & LFG	10,974	964,821	3,292	30.00%
Petroleum	345	70,779	242	70.00%
Total:	629,787	64,971,509	221,692	35.20%
			244	
Note: Combine "Natural Gas" and "Other Gases" into "Natural Gas & Other Gases"				
Note: For NJ, "Other" means Municipal Solid Waste as fuel for generation.				
Note: Other Biomass includes Landfill Gas, and is probably dominated by LFG today				
Note: Ignore pumped hydro				
Note: Ignore solar and wind data, use local NJ (CEP) or PJM data instead				
Note: Primary supply for "Biomass and LFG" unknown, so compute input based on generation using an assumed 30% efficiency				

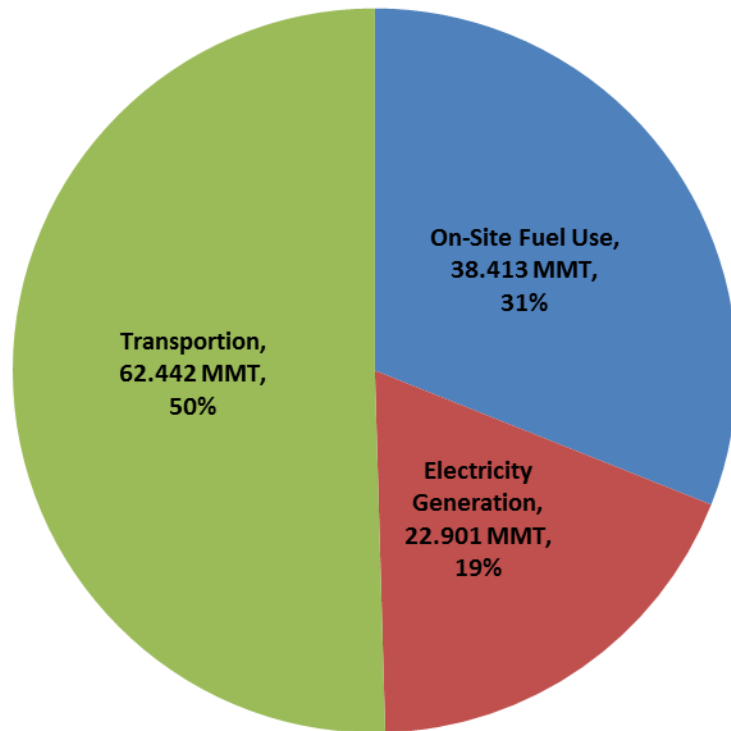
Tab 5. Summary Charts

Primary Energy Use By Major Segment		
	Primary Supply	Units
On-Site Fuel Use	617,349	B-BTUs
Electricity Generation	754,647	B-BTUs
Transportation	875,980	B-BTUs
<b>Total NJ Energy Use (2012):</b>	<b>2,247,976</b>	
Energy-Related CO2 Emissions By Major Segment		
	Co2-Emissions	Units
On-Site Fuel Use	38.413	MMT
Electricity Generation	22.901	MMT
Transportation	62.442	MMT
<b>Total NJ Energy-Related CO2 Emissions (2012):</b>	<b>123.756</b>	MMT

**NJ Primary Energy Use (2012)**  
**(2,247,976 B-BTUs)**



## NJ Energy-Related CO2 Emissions (2012 - 123.756 MMT)



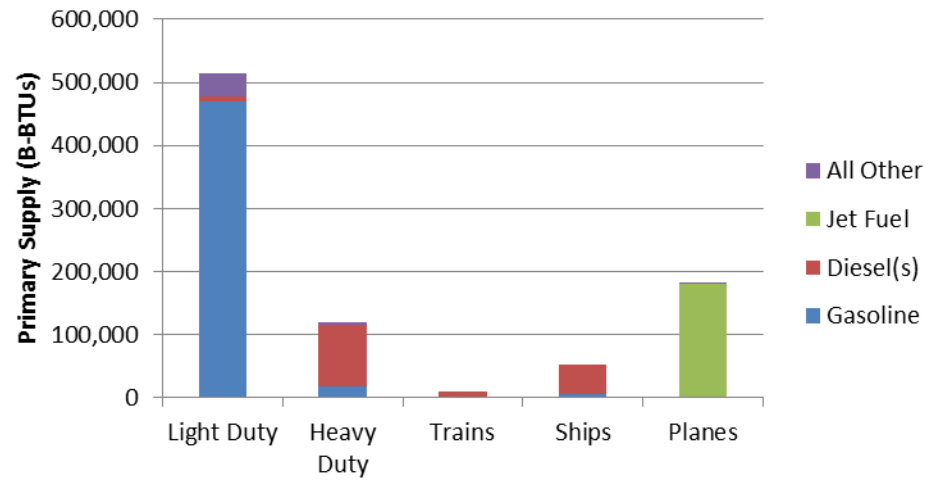
<b>Primary Energy Use By Sub-Segment</b>		
	<b>Primary Supply</b>	<b>Units</b>
Residential On-Site Fuel Use	234,920	B-BTUs
Commercial On-Site Fuel Use	196,534	B-BTUs
Industrial On-Site Fuel Use	185,895	B-BTUs
Residential Electricity Use (primary supply)	287,690	B-BTUs
Commercial Electricity Use (primary supply)	386,163	B-BTUs
Industrial Electricity Use (primary supply)	77,910	B-BTUs
Transportation Electricity Use (primary supply)	2,883	B-BTUs
Transportation - LD Vehicle Fuel Use	514,133	B-BTUs
Transportation - HD Vehicle Fuel Use	120,054	B-BTUs
Transportation - Train Fuel Use	9,455	B-BTUs
Transportation - Ship Fuel Use	51,916	B-BTUs
Transportation - Plane Fuel Use	180,421	B-BTUs
<b>Total NJ Energy Use (2012):</b>	<b>2,247,976</b>	B-BTUs
<b>Energy-Related CO2 Emissions By Sub-Segment</b>		
	<b>CO2 Emissions</b>	<b>Units</b>
Residential On-Site Fuel Use	13.440	MMT
Commercial On-Site Fuel Use	10.889	MMT
Industrial On-Site Fuel Use	14.083	MMT
Residential Electricity Use (primary supply)	8.730	MMT
Commercial Electricity Use (primary supply)	11.719	MMT
Industrial Electricity Use (primary supply)	2.364	MMT
Transportation Electricity Use (primary supply)	0.087	MMT
Transportation - LD Vehicle Fuel Use	36.245	MMT
Transportation - HD Vehicle Fuel Use	8.664	MMT
Transportation - Train Fuel Use	0.693	MMT
Transportation - Ship Fuel Use	4.022	MMT
Transportation - Plane Fuel Use	12.818	MMT
<b>Total NJ Energy-Related CO2 Emissions (2012):</b>	<b>123.756</b>	MMT

Primary Supply Consumption: By Supply Type And End-Use (B-BTUs)									
<b>On-Site Fuel Use</b>	NatGas	Fuel Oil	Petrol	All Others	Total				
Residential	196,706	24,479	0	13,735	234,920				
Commercial	179,510	11,286	0	5,738	196,534				
Industrial	56,312	12,784	106,017	10,782	185,895				
Total:	432,528	48,549	106,017	30,255	617,349				
<b>Electricity Generation</b>	Nuclear	NatGas	Fuel Oil	Coal	W&W&B	Grid S&W&H	Dist. Solar	Imported	Total
Residential	132,271	89,021	132	9,755	8,873	962	1,419	43,358	285,790
Commercial	177,545	119,492	177	13,094	11,910	1,291	7,287	58,199	388,995
Industrial	35,821	24,108	36	2,642	2,403	260	0	11,742	77,012
Transportation	1,325	892	1	98	89	10	0	434	2,850
Total:	346,962	233,514	345	25,589	23,275	2,522	8,707	113,733	754,647
<b>Transportation</b>	Gasoline	Diesel(s)	Jet Fuel	All Other	Total				
Light Duty	469,526	7,344	0	37,263	514,133				
Heavy Duty	18,558	96,132	0	5,363	120,054				
Trains	0	9,455	0	0	9,455				
Ships	6,134	45,783	0	0	51,916				
Planes	863	0	179,233	325	180,421				
Total:	495,081	158,715	179,233	42,951	875,980				



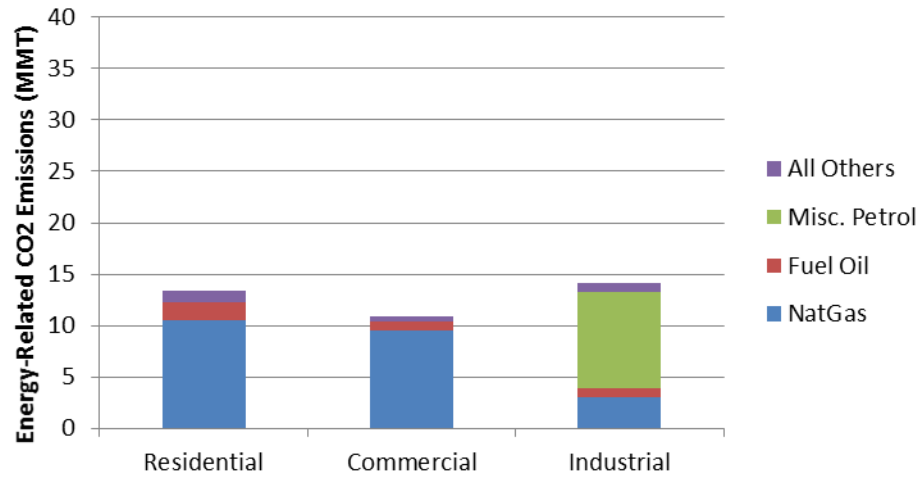


## Transportation

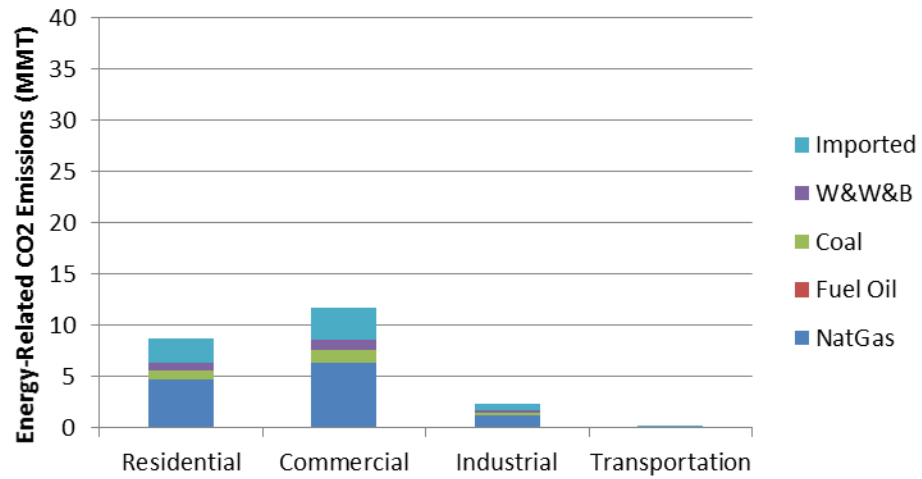


Energy Related CO2 Emissions: By Supply Type And End-Use (MMT)									
<b>On-Site Fuel Use</b>	NatGas	Fuel Oil	Misc. Petrol	All Others	Total				
Residential	10.461	1.795	0.000	1.184	13.440				
Commercial	9.547	0.827	0.000	0.515	10.889				
Industrial	2.995	0.937	9.281	0.870	14.083				
Total:	23.003	3.560	9.281	2.569	38.413				
<b>Electricity Generation</b>	Nuclear	NatGas	Fuel Oil	Coal	W&W&B	Imported	Grid S&W&H	Dist. Solar	Total
Residential	0.000	4.734	0.010	0.932	0.724	2.330	0.000	0.000	8.730
Commercial	0.000	6.355	0.013	1.251	0.972	3.128	0.000	0.000	11.719
Industrial	0.000	1.282	0.003	0.252	0.196	0.631	0.000	0.000	2.364
Transportation	0.000	0.047	0.000	0.009	0.007	0.023	0.000	0.000	0.087
Total:	0.000	12.419	0.025	2.445	1.900	6.112	0.000	0.000	22.901
<b>Transportation</b>	Gasoline	Diesel(s)	Jet Fuel	All Other	Total				
Light Duty	33.550	0.538	0.000	2.157	36.245				
Heavy Duty	1.326	7.048	0.000	0.290	8.664				
Trains	0.000	0.693	0.000	0.000	0.693				
Ships	0.438	3.584	0.000	0.000	4.022				
Planes	0.062	0.000	12.734	0.023	12.818				
Total:	35.376	11.864	12.734	2.469	62.442				

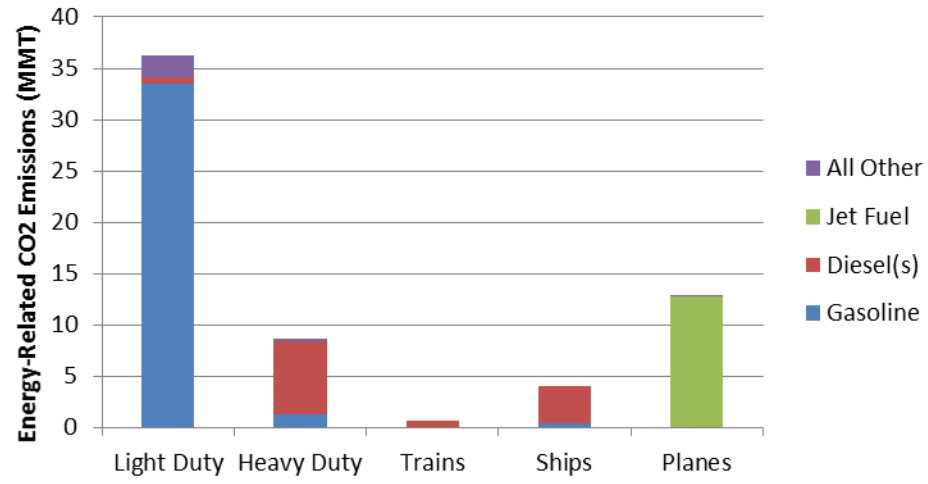
### On-Site Fuel Emissions



### Electricity Generation Emissions



### Transportation Emissions



Tab 6. Top 10

<b>Baseline Year: New Jersey 2012</b>			
	<b>2012</b>		
<b>Fuel Type and End-Use Segment</b>	<b>MMT</b>	<b>%</b>	<b>Cum-%</b>
Use of gasoline in light duty vehicles	33.550	27.1%	27.1%
On-site use of fuel oil and natural gas in the residential sector	12.256	9.9%	37.0%
Use of jet fuel in planes departing NJ	12.734	10.3%	47.3%
Imported Electricity (from PJM)	6.112	4.9%	52.2%
On-site use of natural gas in the commercial & industrial sectors	12.541	10.1%	62.4%
Use of miscellaneous petroleum by industry (process)	9.281	7.5%	69.9%
Use of coal for in-state electricity generation (all sectors)	2.445	2.0%	71.9%
Use of diesel in heavy duty vehicles	7.048	5.7%	77.5%
Use of diesel(s) in ships departing NJ	3.584	2.9%	80.4%
Use of natural gas & fuel oil for electricity generation (all sectors)	12.444	10.1%	90.5%
Total:	111.995	90.5%	

