

Utility Data Request

Summary and Comparison
2005, 2009, 2010

Energy Advisory Committee
July 21, 2011



Outline

- Data Sources
 - Electricity
 - Natural Gas
- Comparison and Trends
 - Renewables
 - Smart Grid
 - Pricing Options
- Available Information



Data Sources- Utilities

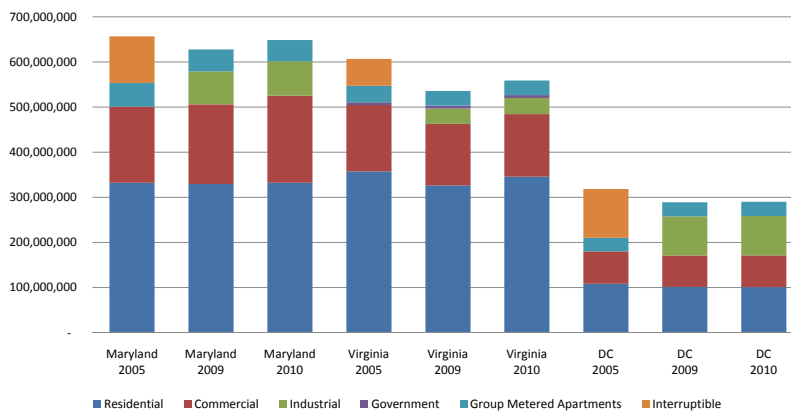
Utility	Territory	Data Provided
Columbia Gas	Fairfax, Loudoun, Prince William Counties; Cities of Manassas and Manassas Park	Natural Gas Use (Residential, Commercial, Industrial, Government) by zip code in Mcf; Accounts
Constellation Energy	Montgomery and Prince George's Counties	Electric and Natural Gas Use (Residential, Commercial/Industrial) by jurisdiction and zip code in therm or kWh; Accounts; Pricing Options
Dominion Virginia Power	COG Virginia territory except Cities of Manassas and Manassas Park	Electric Use (Residential, Commercial, Government, Industrial) by jurisdiction in kWh; Accounts; Renewables; Pricing Options; Smart Meters
Manassas	City of Manassas	Electric Use (Residential, Commercial, Government, Industrial) in kWh; Accounts
NOVEC	Fairfax, Loudoun, and Prince William Counties; Cities of Manassas and Manassas Park	Electric Use (Residential, Residential Government, Commercial, Commercial Government) by jurisdiction and zip code in kWh; Accounts
Pepco	District of Columbia, Montgomery and Prince George's Counties	Electric Use (Residential, Commercial, Residential Government, Commercial Government) by jurisdiction and zip code in kWh; Accounts; Renewables; Pricing Options; Smart Meters
Potomac Edison*	Frederick and Montgomery Counties	Electric Use (Residential, Government, Commercial, Industrial, Lighting) by jurisdiction in kWh; Account; Renewables; Pricing Options; Smart Meters
Washington Gas	All COG territory except City of Manassas	Natural Gas Use (Residential, Commercial, Industrial, Group-Metered Apartments) by zip code in term; Accounts



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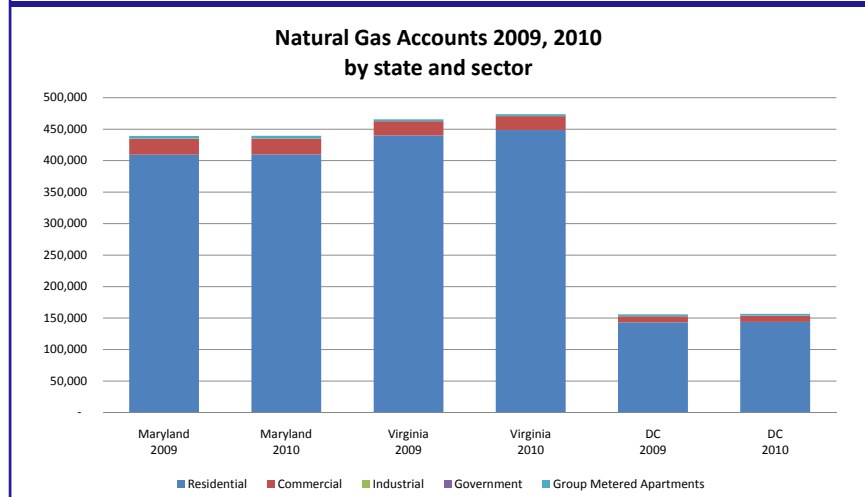
Natural Gas Use

Natural Gas Use 2005, 2009, 2010
by state and sector in therms



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Natural Gas Accounts



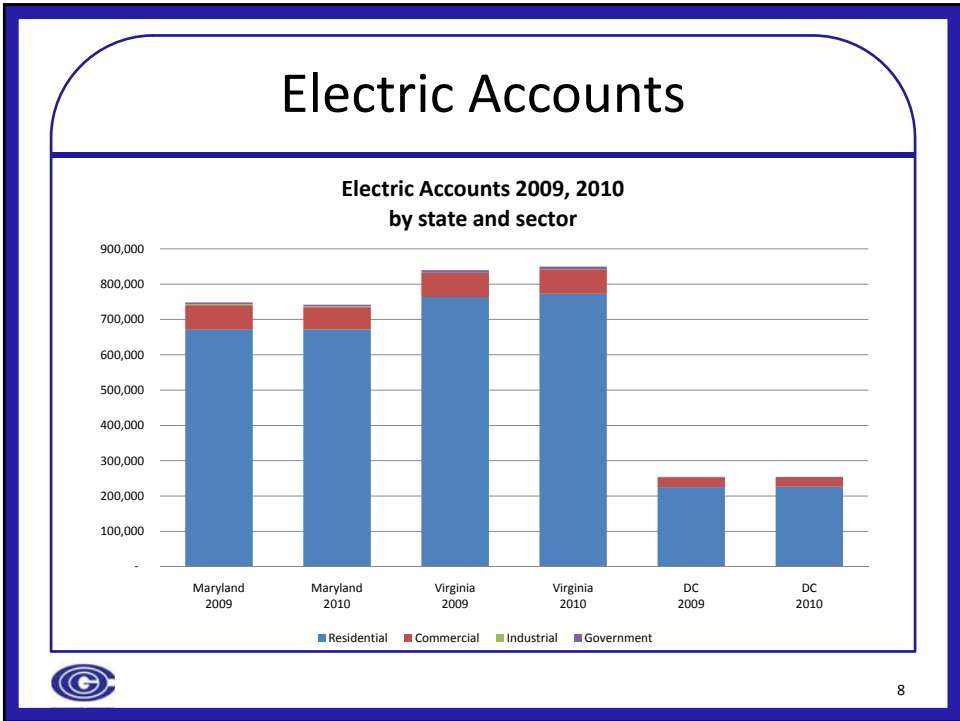
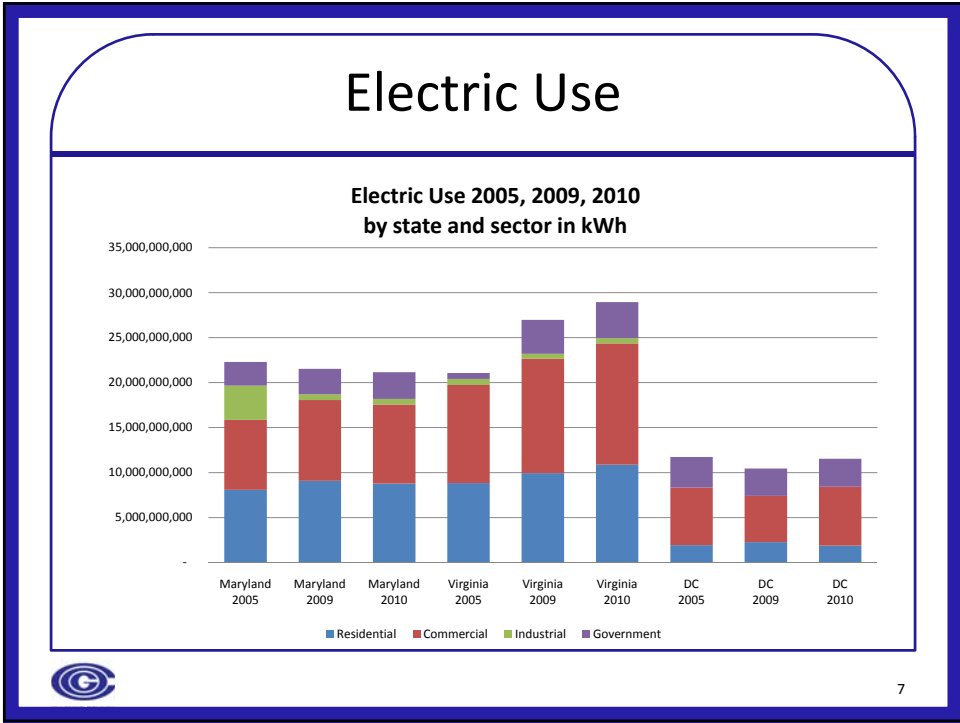
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Natural Gas Comparison and Trends

- Large growth in Loudoun County in all sectors except Group Metered Apartments, which decreased- tremendous Commercial Growth
- Large growth in Fairfax City Residential, decrease in Commercial and Group Metered Apartments
- No large changes in account distributions from 2009 to 2010



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Electric Comparison and Trends

- Large drop in Frederick County Industrial since 2005
- Large growth in Loudoun County in all sectors
- NOVEC territory in Fairfax, Loudoun Counties saw tremendous government growth, especially in accounts, however this is a small portion of the total for the state



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Grid Connected Systems

Grid Connections			2009		2010	
Jurisdiction	Utility	Type	# Systems	Capacity (kW)	# Systems	Capacity (kW)
Alexandria	Dominion	Solar	28	96.515	33	117.810
Arlington	Dominion	Solar	40	137.987	46	156.887
Fairfax	Dominion	Solar	4	15.880	52	241.796
Falls Church	Dominion	Solar	7	25.944	11	54.199
Loudoun County	Dominion	Solar	-	-	48	251.669
Manassas	Dominion	Solar			3	14.110
Prince William County	Dominion	Solar	-	-	7	41.910
DC	Pepco	Solar	103	659.528	273	1,694.199
Montgomery County	Pepco	Solar	186	2,141.870	397	3,918.896
Prince George's County	Pepco	Solar	33	396.350	50	613.959
Frederick/Montgomery	Potomac Edison	Solar	50	369.250	137	2,671.700
Frederick/Montgomery	Potomac Edison	Wind	10	39.700	21	72.700
TOTAL SOLAR			451	3,843.324	1,057	9,777.135
TOTAL WIND			10	39.700	21	72.700
TOTAL GRID CONNECTED SYSTEMS			461	3,883.024	1,078	9,849.835



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Residential Electric and Natural Gas Use per Capita

Year	Residential Electric and Natural Gas Use per Capita (kWh)
2005	9,880
2009	9,710
2010	9,720

Residential Electric and Natural Gas Use per Capita represents residential electric use plus residential and group metered apartment natural gas use combined using a kWh equivalent factor for natural gas of 29.3.

2005 and 2009 populations from COG Planning Department [2005-2009 Economic Trends Report](#); 2010 population from COG tabulation of 2010 Census data



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Green Power Sales

Green Power Sales			2009	2010
Jurisdiction	Utility	Account Type	# Accounts	# Accounts
DC	Pepco	Residential	140	
DC	Pepco	Comm/Govt	3	
DC	Pepco	Commercial	9	
Montgomery County	Pepco	Residential	220	
Montgomery County	Pepco	Comm/Govt	7	
Montgomery County	Pepco	Commercial	6	
Prince George's County	Pepco	Residential	24	
Prince George's County	Pepco	Comm/Govt	2	
Prince George's County	Pepco	Commercial	6	
Northern Virginia	Dominion*	Total	6,581	7,469
TOTAL			6,998	7,469



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Smart Grid

Smart Meters			2009	2010
Jurisdiction	Utility	Sector	# Meters Installed	# Meters Installed
Alexandria	Dominion	Total		4,115
Arlington County	Dominion	Total		19,221
Fairfax County	Dominion	Total		4,499
Falls Church	Dominion	Total		4,969
Northern Virginia	Dominion	Total	5,000	(32,804)
Washington Region	Potomac Edison	Commercial	178	186
		Industrial	88	94
		Residential	39	40
TOTAL			5,305	33,124



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Pricing Options

Time of Day/Utility Control Pricing			2009	2010
Jurisdiction	Utility	Sector	# Accounts	# Accounts
DC	Pepco	Residential	419	
DC	Pepco	Commercial	174	
Montgomery County	Constellation	Residential	5,857	6,426
Montgomery County	Constellation	Non-Residential	122	128
Montgomery County	Pepco	Residential	36,279	
Montgomery County	Pepco	Commercial	326	
Prince George's County	Constellation	Residential	26,578	29,945
Prince George's County	Constellation	Non-Residential	1,194	1,186
Prince George's County	Pepco	Residential	18,040	
Prince George's County	Pepco	Commercial	137	
Virginia	Dominion	Total	>12,700	13,294
Frederick/Montgomery	Potomac Edison	Commercial	10	10
Frederick/Montgomery	Potomac Edison	Industrial	13	6
Frederick/Montgomery	Potomac Edison	Government	1	-
TOTAL		Residential	87,173	36,371
TOTAL		Non-Residential	1,977	1,330
TOTAL		All	89,150	37,701



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Available Information- Sharepoint

- ncrportal.mwcog.org/sites/surveys/climate/default.aspx
 - This presentation
 - Single Jurisdiction data
- Summary of natural gas usage and accounts by jurisdiction and utility
 - Summary of electric usage and accounts organized by state
- Tables with all data for electric and natural gas use per capita, grid connections, smart grid, pricing options



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Questions/Comments?

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