OFFICE OF THE COUNTY EXECUTIVE
ROCKVILLE, MARYLAND 20850

Isiah Leggett
County Executive

MEMORANDUM

May 6, 2010

TO: Nancy Floreen, President, County Council

FROM: Isiah Leggett, County Executive

SUBJECT: Energy Tax Options

At the request of the joint MFP/T&E Committee I am providing the Council with additional information related to options on changes to the energy tax rates. In addition I am providing information related to the impact of scheduled changes in the Standard Offer Service (SOS) rates on the electric bill for residential and non-residential customers.[1] This analysis indicates that reductions in the SOS rates could more than offset the increase in the electricity portion of the fuel energy tax rate for residential customers and substantially modify the net increase in electricity bills for non residential customers.

A residential customer in the example four bedroom, 3.5 bath home could experience a reduction in their electric utility bill of $60 annually, due to the combined impact of rate changes due to SOS and the higher fuel-energy tax rates. This can be seen in the attached analysis, which shows such a home using 1,180 kWh of electricity per month and under the current energy tax rate structure paying $148 annually in the energy tax, an increase of $74 annually. However, because of the projected change in rates due to SOS, their cost of electricity would decline by $134.[2] The net change in the electric utility bill would be a reduction of $60 annually.

Under my initial proposal, an Office Building using 365,876 kWh of electricity per month would see a $61,042 annual increase in the energy tax. However, because of the projected change in the cost of SOS electricity their cost of electricity could decline

[1] All usage data for each category of rate payer used in the attached analyses was provided by PEPCO.
[2] This analysis is based on changes in Pepco's approved Schedule R SOS rates for summer 2010 versus summer 2009. Market indicators suggest similar reductions will occur in winter 2010 rates.

by $45,178. The net change in the electric utility bill would be an increase of $15,864 annually approximately 3% of the total electric utility bill.[3]

Other examples of the impact of the energy tax increase and the reduction in SOS rates are included in the attached analyses including examples that show the net difference in utility bills assuming changes in the relative burden of the tax rate increase. As currently structured, 27% of the energy tax is paid by residential rate payers and 73% is paid by non-residential rate payers. Two preferred options for changing this structure would include having 34% of the tax paid by residential rate payers and 66% by non-residential or with 40% of the tax paid by residential rate payers and 60% by non-residential. Both of these options still result in net reductions in households' electricity bills yet significantly reduce the total electricity bill increase for commercial customers.

Whatever rate structure the Council ultimately supports I believe we must remain focused on maintaining the projected revenues at the levels in my April 22 budget recommendations to the County Council. Reducing overall revenues from that level could severely impact the estimated increased energy tax revenues required in FY10 ($21.4 million) to maintain fiscal balance in the current year and begin the important process of rebuilding our reserves. It would also impact our ability to preserve service levels in FY11 and FY12. Current assumptions in the balanced fiscal plan would limit expenditure growth to 1% in FY12. A further erosion in projected revenues would require even further reductions in planned expenditures in that budget.

The charts also indicate the projected savings that would result from relatively modest reductions in usage – an additional goal of the energy tax. Such reductions in usage would serve to offset the tax even further for both residents and businesses. The attached analysis provides an estimate by each category of rate payer of a 2% reduction in electricity usage. I have also attached a matrix prepared by the Department of Environmental Protection that shows the existing programs supporting energy efficiency and renewable energy incentives for both residential and non residential utility customers.

Attachments

copies:
Timothy L. Firestine, Chief Administrative Officer
Robert Hoyt, Director, Department of Environmental Protection
Jennifer E. Barrett, Director, Department of Finance
Joseph F. Beach, Director, Office of Management and Budget
Kathleen Boucher, Assistant Chief Administrative Officer

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[3] This analysis is based on changes in Pepco's approved Schedule GS SOS rates for summer 2010 versus summer 2009. Other time of use based rates may apply to commercial customers.

Assumptions

Energy Tax

The energy tax is levied on all suppliers of electricity, natural gas, fuel oil, and other building fuels in the county. The Maryland Public Service Commission (PSC) authorizes that the tax be passed through the utility bill to the consumer. The tax is broken into two categories:

Residential	Non-Residential
▪ Single family homes ▪ Individually Metered Apartments/Condos ▪ Agriculture	▪ Commercial ▪ Government (Fed, State, Local) ▪ Non-Profit ▪ Master Metered Multi-family

The PSC also authorizes the utilities to include a small administrative fee for collecting the tax. For example, the fee charged residential accounts in 2010 equaled approximately 1.8% of the residential energy tax rate.

Analysis of Standard Offer Service Rate Changes

Standard Offer Service (SOS) is the rate that utility service subscribers default to if they have not selected a competitive energy supplier. The rates for SOS, which includes generation charges, are established based on twice a year auctions in the wholesale energy market for energy supply. The energy tax with a sunset in 2012 will go through three cycles of updated SOS rates.

Residential:

This analysis compares the Pepco residential rate (Schedule R) for summer 2009 with summer 2010 (June 1 to September 30). It is assumed that reductions between winter 2009 and winter 2010 will be comparable. The analysis addresses only SOS and not the pricing from competitive energy suppliers. However, opportunities for rate reductions from these suppliers are anticipated to be similar.

Commercial:

Pepco has 14 different commercial rate categories. This analysis uses the General Service (Schedule GS) rate as a proxy for all commercial rates. However, the GS rate is the only option that is fixed per kilowatt-hour, as opposed to being variable based time of use. It is assumed that buildings on other rate schedules will have comparable opportunities to achieve similar savings as both are set on wholesale market factors.

Monthly Electricity Usage:

This analysis uses sample monthly electricity usage provided by Pepco for March from a variety of accounts. These figures are multiplied by 12 to estimate annual consumption. Actual annual consumption will vary due to fluctuations in electricity use through the year.

Reductions in Electricity Use

This analysis shows the estimated savings associated with a reduction in electricity use of 2%. Entities may also use heating fuels such as natural gas or oil that are also taxed. Energy efficiency measures could also reduce the consequences of increased tax rates on these fuels, and well as increase in fuel costs.

The attached table provides information on energy efficiency and renewable energy incentives and credits that are available to residential and non-residential entities in Maryland from a variety of sources.

Energy Tax Rate Calculator

Energy Tax Revenue	FY10		FY11						FY11 Increase	
	Revenue	Split	Base	Split	Additional	Split	Total	Split	Revenue	%
Total	132,193,552	100%	135,120,000	100%	129,840,000	100%	264,960,000	100%	132,766,448	100%
Residential	36,005,559	27%	36,802,636	27%	35,364,522	27%	72,167,158	27%	36,161,599	100%
Non-Residential	96,187,993	73%	98,317,364	73%	94,475,478	73%	192,792,842	73%	96,604,849	100%

Sector	Energy Tax Rates - Electricity				Pepco SOS Energy Rates (1)		
	FY10	% Chng	FY11	Difference	2009	2010	Difference
Residential	$0.005224	100%	$0.010470	$0.005246	$0.12787	$0.11842	($0.00945)
Non-Residential	$0.013843	100%	$0.027747	$0.013903	$0.12862	$0.11833	($0.01029)

	Monthly Elec. Use (kWh) (2)	Energy Tax			Projected Cost of SOS Electricity			Elec. Bill Net Difference	Including a Reduction in Electricity Use of 2%		
		FY10	FY11	Difference	FY10	FY11	Difference		FY10	FY11	Difference
Residential											
7,105 Square Feet	1,868	117	235	118	2,866	2,655	(212)	(94)	2,983	2,831	(152)
1,428 Square Feet	3,370	211	423	212	5,171	4,789	(382)	(170)	5,382	5,108	(274)
789 Square Feet	258	16	32	16	396	367	(29)	(13)	412	391	(21)
6 Bedroom, 5 Bath	5,420	340	681	341	8,317	7,702	(615)	(273)	8,656	8,215	(441)
4 Bedroom, 3.5 Bath	1,180	74	148	74	1,811	1,677	(134)	(60)	1,885	1,789	(96)
3,600 Square Feet	658	41	83	41	1,010	935	(75)	(33)	1,051	997	(54)
Non-Residential											
Coffee in Rockville	8,118	1,349	2,703	1,354	12,530	11,527	(1,002)	352	13,878	13,946	67
Restaurant	28,640	4,758	9,536	4,778	44,204	40,668	(3,536)	1,242	48,962	49,200	238
Ice Cream Parlor	9,960	1,655	3,316	1,662	15,373	14,143	(1,230)	432	17,027	17,110	83
Hotel	392,488	65,200	130,682	65,482	605,782	557,317	(48,464)	17,018	670,981	674,239	3,258
Grocery Store	232,721	38,659	77,486	38,827	359,191	330,455	(28,736)	10,091	397,850	399,782	1,932
Florist	1,584	263	527	264	2,445	2,249	(196)	69	2,708	2,721	13
Non-profit	129,920	21,582	43,258	21,676	200,524	184,481	(16,043)	5,633	222,106	223,184	1,078
Office Building	365,876	60,779	121,821	61,042	564,708	519,529	(45,178)	15,864	625,487	628,524	3,037
Biotech Company	5,112,805	849,335	1,702,350	853,016	7,891,308	7,259,979	(631,329)	221,686	8,740,642	8,783,082	42,440

(1) Pepco Standard Offer Service (SOS) rates for residential customers (Schedule R) and commercial customers (Schedule GS).
(2) Electricity use provided by Pepco in April 20, 2010 written testimony.

Energy Tax Rate Calculator

Energy Tax Revenue	FY10		FY11						FY11 Increase	
	Revenue	Split	Base	Split	Additional	Split	Total	Split	Revenue	%
Total	132,193,552	100%	135,120,000	100%	129,840,000	100%	264,960,000	100%	132,766,448	100%
Residential	36,005,559	27%	36,802,636	27%	44,145,600	34%	80,948,236	31%	44,942,677	125%
Non-Residential	96,187,993	73%	98,317,364	73%	85,694,400	66%	184,011,764	69%	87,823,772	91%

Sector	Energy Tax Rates - Electricity				Pepco SOS Energy Rates (1)		
	FY10	% Chng	FY11	Difference	2009	2010	Difference
Residential	$0.005224	125%	$0.011744	$0.006520	$0.12787	$0.11842	($0.00945)
Non-Residential	$0.013843	91%	$0.026483	$0.012639	$0.12862	$0.11833	($0.01029)

	Monthly Elec. Use (kWh) (2)	Energy Tax			Projected Cost of SOS Electricity			Elec. Bill Net Difference	Including a Reduction in Electricity Use of 2%		
		FY10	FY11	Difference	FY10	FY11	Difference		FY10	FY11	Difference
Residential											
7,105 Square Feet	1,868	117	263	146	2,866	2,655	(212)	(66)	2,983	2,859	(124)
1,428 Square Feet	3,370	211	475	264	5,171	4,789	(382)	(118)	5,382	5,159	(224)
789 Square Feet	258	16	36	20	396	367	(29)	(9)	412	395	(17)
6 Bedroom, 5 Bath	5,420	340	764	424	8,317	7,702	(615)	(191)	8,656	8,297	(360)
4 Bedroom, 3.5 Bath	1,180	74	166	92	1,811	1,677	(134)	(41)	1,885	1,806	(78)
3,600 Square Feet	658	41	93	51	1,010	935	(75)	(23)	1,051	1,007	(44)
Non-Residential											
Coffee in Rockville	8,118	1,349	2,580	1,231	12,530	11,527	(1,002)	229	13,878	13,825	(53)
Restaurant	28,640	4,758	9,102	4,344	44,204	40,668	(3,536)	807	48,962	48,774	(188)
Ice Cream Parlor	9,960	1,655	3,165	1,511	15,373	14,143	(1,230)	281	17,027	16,962	(65)
Hotel	392,488	65,200	124,730	59,530	605,782	557,317	(48,464)	11,066	670,981	668,406	(2,575)
Grocery Store	232,721	38,659	73,957	35,298	359,191	330,455	(28,736)	6,561	397,850	396,323	(1,527)
Florist	1,584	263	503	240	2,445	2,249	(196)	45	2,708	2,698	(10)
Non-profit	129,920	21,582	41,288	19,705	200,524	184,481	(16,043)	3,663	222,106	221,253	(852)
Office Building	365,876	60,779	116,273	55,494	564,708	519,529	(45,178)	10,315	625,487	623,086	(2,401)
Biotech Company	5,112,805	849,335	1,624,814	775,479	7,891,308	7,259,979	(631,329)	144,150	8,740,642	8,707,097	(33,546)

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Energy Tax Rate Calculator

Energy Tax Revenue	FY10		FY11						FY11 Increase	
	Revenue	Split	Base	Split	Additional	Split	Total	Split	Revenue	%
Total	132,193,552	100%	135,120,000	100%	129,840,000	100%	264,960,000	100%	132,766,448	100%
Residential	36,005,559	27%	36,802,636	27%	51,936,000	40%	88,738,636	33%	52,733,077	146%
Non-Residential	96,187,993	73%	98,317,364	73%	77,904,000	60%	176,221,364	67%	80,033,372	83%

Sector	Energy Tax Rates - Electricity				Pepco SOS Energy Rates (1)		
	FY10	% Chng	FY11	Difference	2009	2010	Difference
Residential	$0.005224	146%	$0.012874	$0.007651	$0.12787	$0.11842	($0.00945)
Non-Residential	$0.013843	83%	$0.025362	$0.011518	$0.12862	$0.11833	($0.01029)

	Monthly Elec. Use (kWh) (2)	Energy Tax			Projected Cost of SOS Electricity			Elec. Bill Net Difference	Including a Reduction in Electricity Use of 2%		
		FY10	FY11	Difference	FY10	FY11	Difference		FY10	FY11	Difference
Residential											
7,105 Square Feet	1,868	117	289	171	2,866	2,655	(212)	(40)	2,983	2,884	(99)
1,428 Square Feet	3,370	211	521	309	5,171	4,789	(382)	(73)	5,382	5,203	(179)
789 Square Feet	258	16	40	24	396	367	(29)	(6)	412	398	(14)
6 Bedroom, 5 Bath	5,420	340	837	498	8,317	7,702	(615)	(117)	8,656	8,369	(288)
4 Bedroom, 3.5 Bath	1,180	74	182	108	1,811	1,677	(134)	(25)	1,885	1,822	(63)
3,600 Square Feet	658	41	102	60	1,010	935	(75)	(14)	1,051	1,016	(35)
Non-Residential											
Coffee in Rockville	8,118	1,349	2,471	1,122	12,530	11,527	(1,002)	120	13,878	13,718	(160)
Restaurant	28,640	4,758	8,716	3,959	44,204	40,668	(3,536)	422	48,962	48,396	(566)
Ice Cream Parlor	9,960	1,655	3,031	1,377	15,373	14,143	(1,230)	147	17,027	16,831	(197)
Hotel	392,488	65,200	119,449	54,250	605,782	557,317	(48,464)	5,785	670,981	663,231	(7,750)
Grocery Store	232,721	38,659	70,826	32,167	359,191	330,455	(28,736)	3,430	397,850	393,255	(4,595)
Florist	1,584	263	482	219	2,445	2,249	(196)	23	2,708	2,677	(31)
Non-profit	129,920	21,582	39,540	17,958	200,524	184,481	(16,043)	1,915	222,106	219,540	(2,565)
Office Building	365,876	60,779	111,350	50,571	564,708	519,529	(45,178)	5,393	625,487	618,262	(7,225)
Biotech Company	5,112,805	849,335	1,556,025	706,690	7,891,308	7,259,979	(631,329)	75,361	8,740,642	8,639,684	(100,959)

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(2) Electricity use provided by Pepco in April 20, 2010 written testimony.

Selected Energy-Efficiency and Renewable Energy Incentives

5/4/2010

	Residential	Non-Residential
Pepco (Utility)	▪ *Energy Wise Programmable Thermostat/Cycling Program* – Up to $160 annual savings for cycling A/C. ▪ *Lighting Program* – Up to $1.50 off a single or $3.00 off a multi-pack of compact fluorescent lamps (CFL). Savings potential up to $10/year per lamp. ▪ *Pepco Appliance Program* – Up to $300 per household for the purchase of energy-efficient appliances. ▪ *Home Energy-Efficiency Programs* - $100 full home energy audit, enhanced incentives for efficiency improvements resulting from the audit. ▪ *HVAC Efficiency Program* – Up to $200 for heat pumps and up to $300 for A/C replacement. Up to $100 for a tune-up. ▪ *Income Eligible Program* – Complete energy audit and retrofits for income eligible consumers.	▪ Up to $250,000 per account or $500,000 for multi-account holders for energy-efficiency improvements to commercial properties. ▪ Prescriptive incentives for high-efficiency lighting, HVAC, vending machine controls, and motors. ▪ Custom incentives available for qualifying projects.

BG&E (Utility)	▪ *Peak Rewards* – Up to $100 and a programmable thermostat for cycling of A/C.
	▪ *Lighting Program* – Up to $2.50 per CFL or $10 per fixture for compact fluorescent or energy-efficient lighting.
	▪ *Appliance Program* –
	  ▪ Up to $100 per energy-efficient refrigerator.
	  ▪ Up to $150 for energy-efficient electric water heaters, or $300 for heat pump water heaters.
	  ▪ Up to $25 for energy-efficient window air-conditioners.
	  ▪ $50 bonus for recycling of old refrigerator.
	▪ *Home Performance with ENERGY STAR Program* - Approximately $1,200 in incentives for improvements identified in a comprehensive audit report.
	▪ *Heating and Cooling* – (ala carte) $75 for system tune-ups, $200 for duct sealing, up to $400 for high-efficiency equipment, up to $200 for efficiency equipment that meet high quality installation standards.
	▪ *Income Eligible Program* – Complete energy audit and retrofits for income eligible consumers.
		▪ *Small Business Lighting Solutions* – Up to 80% of the cost of qualified lighting improvements.
		▪ *Business Energy Solutions* – Up to 50% of retrofit costs for qualifying energy-efficiency retrofits and 75% of the incremental cost for new construction.

Allegheny (Utility)	▪ *Lighting Program* - Up to $1.50 off a single or $3.00 off a multi-pack of CFLs.
	▪ *Appliance Program* – Rebates for energy-efficient appliances.
	  ▪ $25 for energy-efficient dishwashers or clothes dryers with moisture sensors, room air-conditioners, or programmable thermostats.
	  ▪ $75 for energy-efficient clothes washers.
		▪ *Lighting Energy-Efficiency* – $15 to $25 per energy-efficient lighting fixture or exit sign.
		▪ $40 per ton of efficient AC or $80 per ton of efficiency heat pump.
		▪ Up to 50% of the cost of variable frequency drives, efficient motors controllers common on HVAC systems.
		▪ For projects that can save greater than 250,000 kWh per

	▪ $50 on refrigerators or $25 on freezers. ▪ $200 on energy-efficiency A/C or heat pumps ▪ Home Performance with ENERGY STAR – Providing a subsidized $180 comprehensive audit and up to $1,000 in incentives for insulation and air-sealing recommended by the audit.	year, up to $250,000 or 50% of project cost can be awarded. ($2,000,000 Maryland cap)
Maryland Energy Administration	▪ *Geothermal Heat pump Grants* - Up to $3,00 for Geothermal Heat pump Installations ▪ *Solar Grants* - Up to $10,000 for solar photovoltaic systems or up to $2,000 for solar water heating. ▪ *EmPower Communities Grants* – Bi-annual competitive grant program for low-moderate income energy-efficiency improvements operated by non-profits and local governments.	▪ *Geothermal Heat pump Grants* - Up to $10,000 for Geothermal Heat pump Installations ▪ *Farm Energy Program* – Incentives for agricultural upgrades ▪ Subsidized energy audit $300 ▪ Up to $0.08/kWh or $1.50 gallon propane per estimated electricity savings. ▪ *Solar Grants* - Up to $10,000 for solar photovoltaic systems, up to $2,000 for solar water heating. ▪ Pay for up to 50% of energy assessment costs for for-profit organizations and 75% of the costs for not-for-profit organizations through the Maryland Technology Extension Service.
Federal	▪ Tax credit equal to 30% of the cost or up to $1,500 per home for building envelope, heating and cooling system improvements. ▪ Tax credit equal to 30% of the cost of solar, geothermal or wind energy systems.	▪ Up to $1.80 per square foot tax deduction for new or existing buildings that achieve prescribed values for energy-efficiency. ▪ Tax credit equal to 30% of the total cost of a solar energy system. ▪ Tax credit equal to 10% of a geothermal system.
Montgomery County	▪ *Home Energy Loan Program (HELP)* – Up to $25,000 in financing for cost-effective energy-efficiency improvements identified in a qualifying audit report. Renewable energy installations where cost-effective or in concert with energy-efficiency. ▪ *EE/RE Property Tax Credit* – Up to $250 annually for energy-efficiency improvements or up to $5,000 for solar or geothermal installations (oversubscribed for FY10 as of 5/2010).	▪ *Commercial/Multi-Family Grant Program* – Up to $75,000 or 25 to 50% of project costs competitively awarded for up to 50 projects.