



# Energy Efficiency Program Portfolio



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April 13, 2016

## April 2016 Update

- Based on input from EEAC stakeholders, Delmarva Power has made several adjustments to its forecast
  - Consumer products: removed CFLs- Delmarva Power projects that the cost differential between CFLs and “value” LEDs will rapidly disappear, and CFLs will rapidly lose popularity. Consumer products savings are slightly increased by this change
  - After discussion with DNREC, and taking into consideration the expected scaling back of the EEIF program, Delmarva Power has increased the expected funding and achievement of its prescriptive program.

# Proposed 3-yr Cycle Program Offering Summary

- Residential Sector
  - Consumer Products Program
  - Behavior Based Program
  
- Non-Residential Sector
  - Prescriptive Program
  - Custom Program

# Consumer Products Program

- Consumer Products consists of 3 main elements:
  - Residential Lighting - offers customers instant in-store discounts on select LED (Energy Star and “value bulbs”) and fixture products at participating retail locations.
  - Appliance Rebate - offers rebates for the purchase of ENERGY STAR certified refrigerators, clothes washers, freezers, room air conditioners (RACs), and heat pump water heaters.
    - Inexpensive refrigerators at code offered to low income customers at no cost if the old refrigerator is recycled
  - Appliance Recycling – removes old, inefficient refrigerators, freezers, dehumidifiers and RACs from the grid.

## Consumer Products Program (cont.)

- Net Wholesale Forecast of Consumer Products Program

Consumer Products	PY1	PY2	PY3	Total
Annual MWh Savings	5,097	6,825	10,112	22,034
Annual MW Savings	0.651	0.870	1.285	2.806
Participants	14,531	18,899	26,913	60,342
Incentive Costs	\$1,300,159	\$1,614,044	\$2,177,654	\$5,091,858
Implementation Costs	\$1,014,263	\$1,337,881	\$1,901,636	\$4,253,780
Total Program Costs	\$2,314,423	\$2,951,924	\$4,079,291	\$9,345,637
TRC Ratio				1.35
SCT Ratio				1.62

# Behavior Based Program

- The Behavior Program motivates Delmarva Power customers to engage in energy saving behavior through the regular distribution of personalized home energy reports.
  - Places customers in an anonymous representative group based on home location, size, and other publicly available criteria to make meaningful comparisons regarding the customers' usage relative to a peer group
  - Customers will be able to contact Company Customer Service Representatives and Energy Advisors as needed who will have online access to the mailed reports

## Behavior Based Program (cont.)

- Net Wholesale Forecast of Behavior Based Program

Behavior Based	PY1	PY2	PY3	Total
Annual MWh Savings	12,773	19,586	23,418	55,778
Annual MW Savings	3.962	4.712	5.676	14.349
Participants	180,000	180,000	180,000	540,000
Incentive Costs	\$0	\$0	\$0	\$0
Implementation Costs	\$2,184,211	\$2,078,947	\$2,078,947	\$6,342,105
Total Program Costs	\$2,184,211	\$2,078,947	\$2,078,947	\$6,342,105
TRC Ratio				2.29
SCT Ratio				2.39

Note: MWh savings, MW savings and participants are program-to-date snapshots for each year.

# Prescriptive Program

- The Prescriptive Program provides simple solutions to encourage large non-residential customers, small business customers, and multi-family customers to purchase efficient technologies that can produce verifiable savings.
  - Targets measures that have broad application in the non-residential sector
  - Customers eligible for this program are also eligible for the Custom Measures Program, which offers incentives for EE improvements that are less common than those included within the Prescriptive Program.
- Target Market
  - Large non-residential customers with electric demand greater than 60 kW including commercial, government, institutional, non-profit, faith-based and industrial customers. Key sectors include healthcare, schools, office buildings, government, grocery, industrial, and hospitality.
  - Small business customers and Multi-Family customers on a commercial rate code will also be eligible to participate.
  - After discussion with DNREC, and taking into consideration the expected scaling back of the EEIF program, Delmarva Power has increased the expected funding and achievement of its prescriptive program.

# Prescriptive Program (cont.)

- Net Wholesale Forecast of Prescriptive Program

Prescriptive	2015	2016	2017	Total
Annual MWh Savings	4,498	6,178	7,197	17,873
Annual MW Savings	0.949	1.303	1.518	3.771
Participants	100	137	160	397
Incentive Costs	\$1,079,901	\$1,483,063	\$1,727,841	\$4,290,805
Implementation Costs	\$754,036	\$1,035,543	\$1,206,457	\$2,996,036
Total Program Costs	\$1,833,936	\$2,518,606	\$2,934,298	\$7,286,841
TRC Ratio				1.64
SCT Ratio				2.05

# Custom Program

- The Custom Program motivates large non-residential customers, small businesses and multi-family properties to select high efficiency options when making changes in facility and process operations.
  - Provides incentives for cost-effective energy efficient systems and designs that are selected and/or designed to the specific needs of the customer, and for equipment types not specifically included in the Prescriptive Program.
  - Customers eligible for this program are also eligible for the Prescriptive Program.
  
- Target Market
  - Large non-residential customers with electric demand greater than 60 kW including commercial, government, institutional, non-profit, faith-based and industrial customers. Key sectors include healthcare, schools, office buildings, government, grocery, industrial, and hospitality.
  - Small business customers and Multi-Family customers on a commercial rate code will also be eligible to participate.

# Custom Program (cont.)

- Net Wholesale Forecast of Custom Program

Custom	2015	2016	2017	Total
Annual MWh Savings	1,664	8,321	9,985	19,970
Annual MW Savings	0.267	1.337	1.605	3.209
Participants	7	36	44	87
Incentive Costs	\$366,326	\$1,831,631	\$2,197,958	\$4,395,915
Implementation Costs	\$212,084	\$1,060,418	\$1,272,502	\$2,545,004
Total Program Costs	\$578,410	\$2,892,050	\$3,470,459	\$6,940,919
TRC Ratio				1.41
SCT Ratio				1.77

# Summary of Delmarva Power's 3-yr Program Cycle

- Total Savings and Cost-Effectiveness

Total Portfolio	PY1	PY2	PY3	Total
Annual MWh Savings	24,033	40,909	50,712	115,654
Annual MW Savings	5.830	8.222	10.083	24.135
Participants	194,638	199,072	207,117	600,826
Incentive Costs	\$2,746,386	\$4,928,739	\$6,103,453	\$13,778,578
Implementation Costs	\$4,164,593	\$5,512,789	\$6,459,543	\$16,136,925
Total Program Costs	\$6,910,979	\$10,441,527	\$12,562,996	\$29,915,503
TRC Ratio				1.61
SCT Ratio				1.91

- Delmarva Power had assumed that the DE SEU will run the previously proposed QHEC program and that the savings previously attributed to the program will be realized by the SEU

# Summary of Delmarva Power's 3-yr Program Cycle (cont.)

- Incremental Annual Savings as a % of Distribution Sales

All EE Programs	2016	2017	2018
Annual MWh Savings	24,033	40,909	50,712
Forecasted MWh Distribution Sales	8,052,095	8,061,366	8,075,797
Incremental Annual Savings %	0.30%	0.51%	0.63%
EEAC Target Goal	0.40%	0.70%	1.00%

- Estimated Monthly Bill Impacts Using 5-Yr Amortization

All EE Programs	2017	2018	2019	2020	2021
Total Residential Costs	\$4,498,633	\$5,030,872	\$6,158,238	\$6,158,238	\$6,158,238
Average Residential Monthly Bill Impact (912 kwh)	\$0.06	\$0.46	\$0.90	\$1.73	\$2.28
Total Non-Residential Costs	\$2,412,346	\$5,410,656	\$6,404,758	\$6,404,758	\$6,404,758
Non-Residential Surcharge Estimate (¢/kwh)*	0.002228	0.023631	0.054982	0.107779	0.141847

\*Note: For example, a pizza shop which uses 11,000 kwh on a monthly basis would experience a monthly surcharge of \$.25 in 2017, \$2.60 in 2018 and \$6.05 in 2019.

# Assumptions used for Cost-Effectiveness Calculations

- Total Resource Cost (TRC) Test measures the net cost of a program, including both the participants' and the utility's costs.
  - Calculation includes Avoided Capacity Costs, Avoided Energy Costs, Avoided Transmission Costs and Avoided Distribution Costs
  - Calculation excludes Capacity DRIPE, Energy DRIPE, non-energy benefits, RPS Compliance and Air Emissions benefits
  - Company's Weighted Cost of Capital is used as the discount rate
- Societal Cost Test (SCT) was calculated in the same manner as the TRC Test but the societal discount rate (3%) was used