

Appendix C-1: EE&C / DR Program Measure Assumptions

Residential including Low Income - Measure Assumptions												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Appliance Turn-In Program	Appliance Turn-In	Refrigerator Recycling	1,004	0.16	8	Ohio TRM	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	Ea	\$50	Ea	\$0
		Freezer Recycling	908	0.15	8	Ohio TRM	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	Ea	\$50	Ea	\$0
		Room Air Conditioner Recycling	76	0.66	3	Ohio TRM	Removal of an existing inefficient unit from service prior to end of useful life thru recycling	\$0	Ea	\$31	Ea	\$0
Home Performance Program	Audits	Comprehensive Audit	832	0.66	9	Ohio TRM	In-Home Audit w/ direct install measures. Also provides incentive for comprehensive measures including but not limited to: Windows, Duct Sealing, and Wall & Attic Insulation, etc., Eligible to customers w/ electric water heating, and/or central electric HVAC systems.	\$876	Ea	\$398	Ea	\$0
		All Electric Home Audit	1,200	0.66	9	Ohio TRM	In-Home Audit w/ direct install measures. Also provides incentive for comprehensive measures including but not limited to: Windows, Duct Sealing, and Wall & Attic Insulation, etc., Eligible to customers w/ electric heat, electric water heating, and central electric HVAC systems.	\$876	Ea	\$439	Ea	\$0
		On-Line Audit	233	0.01	1	Actuals	Energy education and awareness supporting installation of measures and behaviors that reduce consumption of energy and demand thru recommendations from the self performed on-line audit specific to the residence home.	\$21	Ea	\$84	Ea	\$0
	Kits	Efficiency Kit - Standard	451	0.04	9	Ohio TRM	Opt In Kit with energy efficiency measures including but not limited to: CFLs, Night Lights etc. mailed at customers request	\$37	Ea	\$84	Ea	\$0
		Efficiency Kit - All-Electric	510	0.05	8	Ohio TRM	Opt In Kit with energy efficiency measures including but not limited to: CFLs, Faucets Aerators, Low Flow Shower Head, Night Lights etc. mailed at customers request (Eligible to customers w/ electric heat, electric water heating, & central electric HVAC systems)	\$49	Ea	\$84	Ea	\$0
		Efficiency Kit - Schools	132	0.02	9	Ohio TRM	Adoption of an energy efficiency school curriculum provided by teachers or districts which encourages efficient practices & installation of efficiency measures at home.	\$21	Ea	\$21	Ea	\$0
	New Homes	New Construction	1,800	0.50	15	Actuals	Improvement in residence electric energy efficiency of 10 - 15% above present IECC code	\$2,249	Ea	\$750	Ea	\$0

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Residential including Low Income - Measure Assumptions (Continued)												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Home Performance Program	Behavioral	Energy Usage Reports CE	144.36	0.01	1	Company Assumption	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand.	\$0	Ea	\$0	Ea	\$0
		Energy Usage Reports OE	176.09	0.02	1	Company Assumption	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand.	\$0	Ea	\$0	Ea	\$0
		Energy Usage Reports TE	161	0.02	1	Company Assumption	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand.	\$0	Ea	\$0	Ea	\$0
Energy Efficient Products Program	HVAC & Water Heating	Air Source Heat Pump	1,238	0.29	18	Ohio TRM	Replacement of ducted split central units prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 14.5 or 12 EER or 8.2 HSPF	\$822	Ea	\$400	Ea	\$0
		HVAC Maintenance	138	0.04	5	Ohio TRM	Check refrigerant levels and air flow across coils for CAC and HP units using standard industry tools with correction of any problems found and post-treatment re-measurement.	\$85	Ea	\$31	Ea	\$0
		Central Air Conditioner	221	0.29	18	Ohio TRM	Replacement of ducted split central units prior to end of life w/ Energy Star qualifying units w/ SEER ratings > or = 14.5 or 12 EER	\$714	Ea	\$150	Ea	\$0
		Ground Source Heat Pump	2,744	0.20	18	Ohio TRM	Replacement of air-air or air-water split central units that are Energy Star Rated, Tier 1-3 water-air or water-water unit	\$10,000	Ea	\$600	Ea	\$0
		Whole House Fan	258	0.49	20	PA TRM	New installation of a whole house fan for customers w/ electric CAC and/or HP units	\$250	Ea	\$125	Ea	\$0
		Room Air Conditioner	19	0.02	12	Ohio TRM	Purchase and installation of Energy Star (>=10.8 EER) or CEE Tier 1 (>=11.3 EER) qualifying units	\$40	Ea	\$25	Ea	\$0
		Electric Water Heaters	316	0.04	14	Ohio and PA TRMs	Replacement of existing electric storage tank type units heated by Resistive Elec. w/ EF >.93, HP w/ EF >2.0 & Solar w/ EF >1.84	\$397	Ea	\$100	Ea	\$0
		Ductless Mini-Split AC & HP	152	0.39	15	PA TRM	New installation of a Energy Star qualifying unit w/ SEER >= 14.5, EER >=12 or HSPF >= 8.2.	\$600	Ea	\$375	Ea	\$0

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Residential including Low Income - Measure Assumptions (Continued)												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Energy Efficient Products Program	Appliances	Clothes Washers	218	0.03	11	Ohio TRM	Purchase and installation of an Energy Star (MEF >=2.0) or CEE Tier 3 (MEF >=2.20) qualifying units	\$315	Ea	\$63	Ea	\$0
		Dehumidifiers	207	0.05	12	Ohio TRM	Purchase and installation of an Energy Star qualifying units w/ L/kWh of 1.20 to 2.50 and greater	\$45	Ea	\$31	Ea	\$0
		Refrigerators	134	0.02	17	Ohio TRM	Purchase and installation of a new unit meeting either Energy Star or CEE Tier 2, >=20% or >=25% respectively lower energy consumption than the federal standard.	\$85	Ea	\$31	Ea	\$0
		Freezers	134	0.02	17	Ohio TRM	Purchase and installation of a new unit meeting either Energy Star or CEE Tier 2, >=20% or >=25% respectively lower energy consumption than the federal standard.	\$85	Ea	\$31	Ea	\$0
		Pool Pump Motors	409	0.58	10	Ohio TRM	Replacement of an existing single speed pool pump motor with a higher efficiency single, two or variable speed motor of equivalent horsepower.	\$175	Ea	\$25	Ea	\$0
	Consumer Electronics	Smart Strips	103	0.01	4	Ohio TRM	Purchase and installation of controlled power strip (occupancy sensing or load sensing) units w/ 5 or 7 outlets	\$26	Ea	\$13	Ea	\$0
		Televisions	100	0.02	15	PA TRM	Purchase and installation of Energy Star qualifying units meeting version 5.1 (effective May 1,2012) requirements	\$50	Ea	\$0	Ea	\$0
		Computers	50	0.01	4	Energy Star	Purchase and installation of Energy Star qualifying units	\$50	Ea	\$0	Ea	\$0
		Computer Monitors	42	0.01	15	Energy Star	Purchase and installation of Energy Star qualifying units	\$50	Ea	\$0	Ea	\$0

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Residential including Low Income - Measure Assumptions (Continued)												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Energy Efficient Products Program	Lighting	Torchiere Floor Lamps	129	0.02	8	Ohio TRM	Purchase and installation of Energy Star qualifying units	\$5	Ea	\$10	Ea	\$0
		Ceiling Fan with Integral CFLs	120	0.01	10	Ohio TRM	Purchase and installation of Energy Star qualifying units w/ energy efficiency motors and integral CFLs	\$86	Ea	\$31	Ea	\$0
		Emerging Technology	N/A	N/A	N/A	N/A	Purchase and installation of higher efficiency emerging technology products.	\$0	Ea	N/A	Ea	\$0
		Energy Efficient Lighting Products	34	0.004	9	Ohio TRM	Purchase and installation of CFLs, LEDs, EE Incandescent and Halogen screw in & pin base bulbs, single or multi packs replacing incandescents	\$3	Ea	\$3	Ea	\$0
Direct Load Control Program	Direct Load Control	DLC - CAC	0	0.72	1	Appliance demand rating controlled as necessary	Cycles electric CAC or HP units during peak demand periods as necessary	\$2	Ea	\$52	Ea	\$0
		DLC - Pool Pump	0	0.00	1	Appliance demand rating controlled as necessary	Cycles electric pool pump units during peak demand periods as necessary	\$0	Ea	\$52	Ea	\$0
		DLC - Water Heater	0	0.00	1	Appliance demand rating controlled as necessary	Cycles electric water heater units during peak demand periods as necessary	\$0	Ea	\$52	Ea	\$0
Low Income Program	Low Income	Community Connections CE	816	0.11	8	Historic Actuals	Weatherization services provided to customers who qualify within 200% of the Federal Poverty Income Guidelines	N/A	Ea	N/A	Ea	\$0
		Community Connections OE	622	0.08	8	Historic Actuals	Weatherization services provided to customers who qualify within 200% of the Federal Poverty Income Guidelines	N/A	Ea	N/A	Ea	\$0
		Community Connections TE	547	0.07	8	Historic Actuals	Weatherization services provided to customers who qualify within 200% of the Federal Poverty Income Guidelines	N/A	Ea	N/A	Ea	\$0

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Non-Residential, Small - Measure Assumptions												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
C&I Energy Efficient Equipment Program-Small	HVAC & Water Heating	Air Conditioning 65,000-760,000 BTU/Hr (5-65TN)	3,266	2.82	15	Ohio TRM	Replacement or new Single Package or Split System AC or HP, (unitary air, water or evaporatively cooled) exceeding IECC 2006 Table 503.2.3 (1)	\$100	Tn	\$500	20 Tn	\$0
		HVAC Maintenance - Small C&I	163	0.00	10	Ohio TRM	Check refrigerant levels and air flow across coils for CAC and HP units using standard industry tools with correction of any problems found and post-treatment re-measurement.	\$129	Ea	\$63	Ea	\$0
		Hotel Room HVAC/Receptacle Controls / Room	348	0.06	7.5	PA and NEEP TRMs	New installation of occupancy and load sensing controls on lights, receptacles and individual room HVAC units (adjusted back to default settings)	\$205	Room	\$100	Room	\$0
		Dual Enthalpy Economizer	724	0.00	10	Ohio TRM	Upgrade the outside air dry bulb economizer sensors and controls to a dual enthalpy controlled economizer. Upgrade provides continuous monitoring of both outside and return air which controlling system dampers.	\$400	Ea	\$250	Ea	\$0
		Electric Chillers	20,789	10.11	20	Ohio TRM	Replacement or new installation of a single electric chiller w/o VSDs w/ efficiency exceeding IECC 2006, Table 503.2.3 (7) w/ IPLV based on COP	\$177	Tn	\$2,079	150 Tn	\$0
		Room Air Conditioners - Small C&I	46	0.04	12	Ohio TRM	Purchase and installation of Energy Star (>=9.4 EER) or CEE SHEA Tier 1 (>=9.8 EER) qualifying units	\$60	Ea	\$31	Ea	\$0
		Electric Water Heaters	316	0.04	14	Ohio and PA TRMs	Replacement of existing electric storage tank type units heated by Resistive Elec. w/ EF >.93, HP w/ EF >2.0 & Solar w/ EF >1.84	\$397	Ea	\$100	Ea	\$0
		Water-Cooled cent Chiller Upto 300 tn	848	0.90	20	Ohio TRM	Replacement or new installation of a single electric chiller w/o VSDs w/ efficiency exceeding IECC 2006, Table 503.2.3 (7) w/ IPLV based on COP	\$80	Tn	\$5,000	200 Tn	\$0

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Non-Residential, Small - Measure Assumptions (Continued)												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
C&I Energy Efficient Equipment Program-Small	Appliances - Small	Clothes Washer - Small C&I	542	0.00	10	Ohio TRM	Purchase and installation of Energy Star qualifying units meeting MEF >=1.8 w/ electric hot water heating only	\$475	Ea	\$63	Ea	\$0
		Refrigerator Recycling - Small C&I	1,004	0.16	8	Ohio TRM	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	Ea	\$50	Ea	\$0
		Freezer Recycling - Small C&I	908	0.15	8	Ohio TRM	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	Ea	\$50	Ea	\$0
		Room Air Conditioner Recycling - Small C&I	76	0.66	3	Ohio TRM	Removal of an existing inefficient unit from service prior to end of useful life thru recycling	\$0	Ea	\$31	Ea	\$0
		Refrigerators - Small C&I	135	0.02	17	Ohio TRM	Purchase and installation of a new unit meeting either Energy Star or CEE Tier 2, >=20% or >=25% respectively lower energy consumption than the federal standard.	\$85	Ea	\$31	Ea	\$0
		Freezers - Small C&I	135	0.02	17	Ohio TRM	Purchase and installation of a new unit meeting either Energy Star or CEE Tier 2, >=20% or >=25% respectively lower energy consumption than the federal standard.	\$85	Ea	\$31	Ea	\$0
		Vending Equipment Controller (Remote Mount, Lighting)	1,122	0.00	5	Ohio TRM	New installation of system controls on Non Energy Star rated refrigerated & non-refrigerated machines in addition to external mounted occupancy controls for lighting.	\$162	Ea	\$31	Ea	\$0
		Window Film	3,303	1.30	10	Ohio TRM	Purchase and Installation of reflective window film w/ SHGC of .4 or less on double pane clear glass w/ SHGC of .73 and U Value of .72Btu/hr-SF-deg F	\$3	SF	\$1,250	1,000 SF	\$0
		Smart Strip (Load Sensing & Occupancy) - Small C&I	124	0.01	5	PA TRM	Purchase and installation of controlled power strip (occupancy sensing or load sensing) units w/ 5 or 7 outlets	\$26	Ea	\$44	Ea	\$0

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Non-Residential, Small - Measure Assumptions (Continued)												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
C&I Energy Efficient Equipment Program-Small	Food Service	Commercial Solid Door Freezers	2,432	0.28	12	Ohio TRM	Replacement or new installation of a Energy Star qualified reach-in commercial unit w/ solid or glass door (0 - 50CF and greater)	\$220	Ea	\$63	Ea	\$0
		Commercial Solid Door Refrigerators	523	0.06	12	Ohio TRM	Replacement or new installation of a Energy Star qualified reach-in commercial unit w/ solid or glass door (0 - 50CF and greater)	\$180	Ea	\$63	Ea	\$0
		Commercial Glass Door Refrigerators	412	0.05	12	Ohio TRM	Replacement or new installation of a Energy Star qualified reach-in commercial unit w/ solid or glass door (0 - 50CF and greater)	\$180	Ea	\$63	Ea	\$0
		Ice Machines	315	0.07	9	Ohio TRM	Replacement or new installation of Energy Star qualified air cooled, cube-type machines including ice-making heads, self contained & remote-condenser units w/ capacity (100 to 1500lbs/day and greater)	\$559	Ea	\$125	Ea	\$0
		Steam Cookers	7,497	1.44	12	Ohio TRM	Replacement or new installation of Energy Star qualified electric units w/ 3-6 pans	\$2,000	Ea	\$375	Ea	\$0
		Hot Food Holding Cabinet	3,322	0.51	12	Ohio TRM	Replacement or new installation of Full, Three Qtr and Half sized Energy Star qualified units w/ idle energy rate of .04kW/CF	\$1,110	Ea	\$313	Ea	\$0
		Fryers & Griddles	3,375	0.66	12	Ohio TRM	Replacement or new installation of Energy Star qualified electric units.	\$1,295	Ea	\$94	Ea	\$0
		Combination & Convection Ovens	6,226	1.19	12	Ohio TRM	Replacement or new installation of: Combination ovens w/ a heavy load cooking affiance of 60% or greater, or Convection ovens meeting Energy Star qualifications	\$1,619	Ea	\$250	Ea	\$0
		Refrigerated Case Covers / 60' Unit	45,738	0.00	5	Ohio TRM	New installation of continuous curtains over case openings put in place when not in use.	\$42	LF	\$750	60 LF	\$0
		Anti Sweat Heater Controls / Door	6,838	0.00	12	Ohio TRM	New installation of door heater controls on glass door refrigerators or coolers, these on-off controls offer two eligible strategies utilizing relative humidity of indoor air or conductivity of the door	\$300	Circuit	\$188	10 Dcs / Crt	\$0
		LED Reach in Refrig / Freezer Lights	5,743	0.70	8	Ohio TRM	Replacement of T8 or T12 linear fluorescent refrigerator, cooler or freezer lighting w/ LED lighting. Occupancy sensing controls are optional.	\$222	Fixture	\$313	10 Fixture	\$4 / Fixture
		Efficient Refrigeration Condenser	120	0.03	15	DS More MI Database	Replacement prior to end of useful life of condenser w/ efficient unit on Non Energy Star qualified units	\$50	Ea	\$13	Ea	\$0
		Pre Rinse Sprayers	30	0.00	5	Ohio TRM	Replacement of sprayer w/ a unit that uses 1.6GPM or less, On/Off squeeze lever, and cleanability performance of at least 26 seconds, electric water heating only	\$52	Ea	\$35	Ea	\$0
		Strip curtains for walk-in Refrig/Freezer	1,698	0.20	6	Ohio TRM	Replacement or new installation of a polyethylene strip curtain on walk in freezers and coolers covering the entire door frame, eligible openings must be open a minimum of 2.5hrs/day	\$10	SF	\$50	48 SF	\$0

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Non-Residential, Small - Measure Assumptions (Continued)											
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	O&M Savings
C&I Energy Efficient Equipment Program-Small	Lighting	Energy Efficient Exterior Lighting (Area & Prk Gar)	223	0.00	15	Ohio TRM	Replacement or new installation of lighting equipment to a greater efficiency than existing or designed	\$34	Ea	\$40	\$0
		Linear Fluorescent Retrofits (Stdnd & Non Stdnd)	208	0.05	15	Ohio TRM	Replacement or new installation of linear fluorescent lighting equipment, including but not limited to T8 and T5, to a higher efficiency than existing or designed	\$64	Ea	\$21	\$0
		LED Exit Signs (Retrofit Only)	83	0.01	16	Ohio TRM	Replacement of incandescent or fluorescent signs w/ LED	\$30	Ea	\$13	\$6 / Ea
		Emerging Technology - Small C&I	N/A	N/A	N/A	N/A	Purchase and installation of higher efficiency emerging technology products.	\$0	Ea	N/A	\$0
		Energy Efficient Lighting Products - Small C&I	137	0.03	3	Ohio TRM	Purchase and installation of CFLs, LEDs, EE Incandescent and Halogen screw in & pin base bulbs, single or multi packs replacing incandescents	\$1	Ea	\$3	\$0
		Lighting Controls (Oc & Daylight)	114	0.02	8	Ohio TRM	New installation of lighting controls including but not limited to: daylight On/Off & dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$104	Ea	\$31	\$0
	Custom Equipment	VFDs up to 200 HP	11,008	6.59	15	PA TRM	New Installation on existing motors driving HVAC fans, cooling tower fans, chilled water pumps, condenser water pumps, hot water pumps and air compressors. Other applications and larger VFDs will be considered as a Custom measure.	\$125	HP	\$938	\$0
		VFDs greater than 200 HP	63,410	21.20	15	PA TRM	New Installation on existing motors driving HVAC fans, cooling tower fans, chilled water pumps, condenser water pumps, hot water pumps and air compressors. Other applications and larger VFDs will be considered as a Custom measure.	\$125	HP	\$7,500	\$0
		Custom	6,269	0.72	20	ACEEE 5-15% of Avg Usage, Co Assumption of 10%	Replacement or retrofit of existing equipment with greater efficient equipment or process changes, including motors.	\$10,000	Project	\$627	\$0

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Non-Residential, Small - Measure Assumptions (Continued)												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Energy Efficient Buildings Program-Small	New Buildings	New Construction - Small C&I	15,045	1.72	15	24% > ASHRAE 90.1-2004, Green Bldg Approach w/ LEED Cert, Co Assumption 24% of Avg Usage	Improvement in building electric consumption of 24% better than ASHRAE 90.1-2004.	\$2	SF	\$1,505	10,000 SF	\$0
	C&I Audits	Audit-Small	0	0.00	1	N/A	Customer completed energy audits recommending installation of efficient equipment or process changes. Eligible audits will recommend implementation of measures offered by the Company. The audit measure is dependent on implementation and approval of an audit recommended measure offered by the Company.	\$0	Project	\$3,750	Project	\$0
		On-Line Audit - Small C&I	233	0.01	12	Actuals	Energy education and awareness supporting installation of measures and behaviors that reduce consumption of energy and demand thru recommendations from the self performed on-line audit specific to the residence home.	\$12	EA	\$84	EA	\$0
	Custom Buildings	Custom Buildings	6,269	0.72	20	ACEEE 5-15% of Avg Usage, Co Assumption of 10%	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes.	\$10,000	Project	\$627	Project	\$0
	Kits	Efficiency Kits - Small C&I	873	0.18	3.4	Ohio TRM	Opt In Kit with energy efficiency measures including but not limited to, Compact Fluorescent Lights, Smart Strips, Faucet Aerators etc. mailed at customers request	\$25	Ea	\$84	Ea	\$0

Government - Measure Assumptions												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Government Tariff Lighting Program	Government	LED Traffic Signals	575	0.08	10	Ohio TRM	Replace incandescent traffic & pedestrian signals with LED signals	\$165	3 Sockets	\$169	3 Sockets	\$189 / 3 Sockets
		Energy Efficient Street Lighting	223	0.00	15	Ohio TRM	Replace streetlighting with higher efficient lighting	\$17	Ea	\$63	Ea	\$0

Appendix C-1: EE&C / DR Program Measure Assumptions

Non-Residential, Large - Measure Assumptions												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	OKM Savings
C&I Energy Efficient Equipment Program-Large	HVAC - Large	Air Conditioning 65,000-760,000 BTU/Hr (5-65TN) - Large C&I	3266	2.82	15	Ohio TRM	Replacement or new Single Package or Split System AC or HP, (unitary air, water or evaporatively cooled) exceeding IECC 2006 Table 503.2.3 (1)	\$100	Tn	\$500	20 Tn	\$0
		HVAC Maintenance - Large C&I	163	0.00	10	Ohio TRM	Check refrigerant levels and air flow across coils for CAC and HP units using standard industry tools with correction of any problems found and post-treatment re-measurement.	\$129	Ea	\$63	Ea	\$0
		Dual Enthalpy Economizer - Large C&I	3618	0.00	10	Ohio TRM	Upgrade the outside air dry bulb economizer sensors and controls to a dual enthalpy controlled economizer. Upgrade provides continuous monitoring of both outside and return air which controlling system dampers.	\$400	Ea	\$250	Ea	\$0
		Electric Chillers - Large C&I	41,579	20.23	20	Ohio TRM	Replacement or new installation of a single electric chiller w/o VSDs w/ efficiency exceeding IECC 2006, Table 503.2.3 (7) w/ IPLV based on COP	\$177	Tn	\$4,158	300 Tn	\$0
		Water-Cooled cent Chiller Upto 300 tn - Large C&I	848	0.90	20	PA TRM	Replacement or new installation of a single electric chiller w/o VSDs w/ efficiency exceeding IECC 2006, Table 503.2.3 (7) w/ IPLV based on COP	\$80	Tn	\$5,000	200 Tn	\$0
	Lighting - Large	Energy Efficient Exterior Lighting (Area & Prk Gar) - Large C&I	223	0.00	15	Ohio TRM	Replacement or new installation of lighting equipment to a greater efficiency than existing or designed	\$34	Ea	\$40	Ea	\$0
		Linear Fluorescent Retrofits (Stdnd & Non Stdrd) - Large C&I	208	0.05	15	Ohio TRM	Replacement or new installation of linear fluorescent lighting equipment, including but not limited to T8 and T5, to a higher efficiency than existing or designed	\$64	Ea	\$21	Ea	\$0
		LED Exit Signs (Retrofit Only) - Large C&I	83	0.01	16	Ohio TRM	Replacement of incandescent or fluorescent signs w/ LED	\$30	Ea	\$13	Ea	\$6 / Ea
		Emerging Technology - Large C&I	N/A	N/A	N/A	N/A	Purchase and installation of higher efficiency emerging technology products.	\$0	Ea	N/A	Ea	\$0
		Energy Efficient Lighting Products - Large C&I	137	0.03	3	Ohio TRM	Purchase and installation of CFLs, LEDs, EE Incandescent and Halogen screw in & pin base bulbs, single or multi packs replacing incandescents	\$1	Ea	\$3	Ea	\$0
	Custom Equipment - Large	Lighting Controls (Oc & Daylight) - Large	114	0.02	8	Ohio TRM	New installation of lighting controls including but not limited to: daylight On/Off & dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$104	Ea	\$31	Ea	\$0
		VFDs up to 200 HP - Large C&I	11,008	6.59	15	PA TRM	New Installation on existing motors driving HVAC fans, cooling tower fans, chilled water pumps, condenser water pumps, hot water pumps and air compressors. Other applications and larger VFDs will be considered as a Custom measure.	\$125	HP	\$938	25 HP	\$0
		VFDs greater than 200 HP - Large C&I	63,410	21.20	15	PA TRM	New Installation on existing motors driving HVAC fans, cooling tower fans, chilled water pumps, condenser water pumps, hot water pumps and air compressors. Other applications and larger VFDs will be considered as a Custom measure.	\$125	HP	\$7,500	200 HP	\$0
	Custom - Large C&I	490,548	56.00	20	ACEEE 5-15% of Avg Usage, Co Assumption of 10%	Replacement or retrofit of existing equipment with greater efficient equipment or process changes, including motors.	\$100,000	Project	\$49,055	Project	\$0	

Appendix C-1: EE&C / DR Program Measure Assumptions

Non-Residential, Large - Measure Assumptions (Continued)												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Energy Efficient Buildings Program-Large	C&I Audits - Large	Audit - Large C&I	0	0.00	1	N/A	Customer completed energy audits recommending installation of efficient equipment or process changes. Eligible audits will recommend implementation of measures offered by the Company. The audit measure is dependent on implementation and approval of an audit recommended measure offered by the Company.	\$0	Project	\$3,750	Project	\$0
	Custom Buildings - Large	Custom Buildings - Large C&I	122,637	14.00	20	ACEEE 5-15% (Bldg Shell & Operating System ONLY) . Co Assumption 25% of ACEEE 5% of avg customer usage	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes.	\$10,000	Project	\$12,264	Project	\$0
		Retrocommissioning - Large C&I	24,527	2.80	1	ACEEE 5-15% (Bldg Shell & Operating System ONLY) . Co Assumption 25% of ACEEE 1% of avg customer usage	Adjust Electrical, Electric Mechanical, & Control System set points to improve system performance to existing building conditions and use.	\$8,000	Project	\$1,962	Project	\$0
	Demand Response	Demand Response	Interruptible Tariff CE	0	31,778.00	1	Tariff	Opt in Tariff curtailment offering	N/A	N/A	N/A	N/A
Interruptible Tariff OE			0	42,139.00	1	Tariff	Opt in Tariff curtailment offering	N/A	N/A	N/A	N/A	N/A
Interruptible Tariff TE			0	125,671.00	1	Tariff	Opt in Tariff curtailment offering	N/A	N/A	N/A	N/A	N/A
Contracted Demand Resources			0	1,000.00	1	Contract as needed	Contracted curtailment w/ curtailment providers and/or individual customers	N/A	N/A	\$120	kw-yr	\$0

October 2, 2012: Corrected modeled rebate value for Contracted Demand Resources measure.

Appendix C-1: EE&C / DR Program Measure Assumptions

Other - Measure Assumptions												
Program	Sub Program	Measure Name	Annual kWh Savings	Annual kW Savings	Measure Life	Source of Savings	Eligibility / Description	Incremental Cost	Incremental Unit	Modeled Rebate	Modeled Unit	O&M Savings
Mercantile Customer Program	Mercantile	Mercantile Customer Projects	Per Project			As Determined	Customer completed retrofit projects	N/A	N/A	N/A	N/A	N/A
T&D Improvements	T&D Improvements	Distribution Upgrades	Per Project			As Determined	Distribution system improvements that result in system energy savings	N/A	N/A	N/A	N/A	N/A
Smart Grid Modernization Initiative	Smart Grid	Smart Grid Modernization Initiative	N/A	N/A	1	As Determined	Advanced metering pilot	N/A	N/A	N/A	N/A	N/A
Conservation Voltage Reduction	Conservation Voltage Reduction	Conservation Voltage Reduction Study	N/A	N/A	1	As Determined	Advanced metering pilot	N/A	N/A	N/A	N/A	N/A

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Summary: Text Corrected Appendix C-1 to the Companies' EE&PDR Plans electronically filed by Ms. Carrie M Dunn on behalf of The Cleveland Electric Illuminating Company and The Toledo Edison Company and Ohio Edison Company