[Company Exhibit 22]

BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio	)	
Edison Company, The Cleveland Electric	)	
Illuminating Company, and The Toledo	)	Case Nos. 12-2190-EL-POR
Edison Company For Approval of Their	)	12-2191-EL-POR
Energy Efficiency and Peak Demand	)	12-2192-EL-POR
Reduction Program Portfolio Plans for 2013	)	
through 2015 and Approval of Benchmarks	)	
	)	

REBUTTAL TESTIMONY OF

EREN G. DEMIRAY

ON BEHALF OF

OHIO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
THE TOLEDO EDISON COMPANY

INTRODUCTION AND BACKGROUND

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION.

A. My name is Eren G. Demiray, and my business address is 76 South Main Street, Akron, Ohio 44308. I am a Staff Business Analyst in the Compliance & Development Group of the Energy Efficiency Department of FirstEnergy Service Company.

Q. ARE YOU THE SAME EREN DEMIRAY WHO EARLIER GAVE DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to refute and demonstrate certain inconsistencies and errors in both the Direct and Supplemental Testimony provided by Mr. Dylan Sullivan on behalf of the Natural Resources Defense Council in this proceeding, specifically:

- Contrary to Mr. Sullivan's Supplemental Testimony, the Proposed Plans of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (the "Companies") as filed are designed to meet or exceed Ohio's statutory benchmarks for energy efficiency ("benchmarks"), both on a cumulative savings and additional incremental savings basis.
- The methodology used by Mr. Sullivan in his Direct Testimony, Exhibit DES-1, contains flaws and grossly overstates the comparative alleged benefits of $184 million of energy bill savings.

CUMULATIVE ENERGY SAVING BENCHMARK

Q. DOES MR. SULLIVAN ACCURATELY CALCULATE THE CUMULATIVE ENERGY EFFICIENCY SAVINGS ACHIEVED RELATIVE TO THE CUMULATIVE BENCHMARKS IN HIS SUPPLEMENTAL TESTIMONY?

A. No.

Q. WHAT ERRORS DOES MR. SULLIVAN MAKE IN HIS CALCULATIONS?

A. Mr. Sullivan incorrectly utilized cumulative results through July 31, 2012 from the Companies' Existing Portfolio Plan as presented at the September 24, 2012 Collaborative. As the September 24, 2012 Collaborative presentation was a mid-year update of Portfolio status, these values only included existing program savings as of July 31, 2012, with the exception of the Mercantile Customer program which included projects pending and approved as of September 18, 2012. Mr. Sullivan fails to include any energy efficiency savings that are projected to be achieved for the remainder of 2012, including the pro-rata portion of these 2012 installations that will be counted towards compliance in 2013—i.e. the "residual" savings that will apply in the subsequent year. I corrected the table submitted by Mr. Sullivan as DES-3 to account for these savings, and attached the corrections as exhibit EGD-R1. As shown on the exhibit, there are no shortfalls projected for any of the Companies in any of the Plan years on a cumulative savings basis.

Q. WERE THE CORRECT CUMULATIVE RESULTS FROM THE COMPANIES' EXISTING PORTFOLIO PLAN AVAILABLE TO MR. SULLIVAN?

A. Yes. As a response to Sierra Club Discovery Set 3 – 97 (Company Exhibit 15) which was sent to all parties of record on September 25, 2012, cumulative 2012 annualized year-end estimates for each of the Companies from the Existing Plan were provided.

Moreover, the cumulative forecast results by Operating Company per year 2013-2015 were specifically provided as part of the Technical Conference held by the Companies on September 6, 2012, in the slide titled "Cumulative Benchmarks, Targets and Savings Forecast." I have included a copy of this slide as Exhibit EGD-R4. The cumulative results as calculated in exhibit EGD-R1 match the values provided at the Technical Conference.

Q. ARE THE ANNUALIZED 2012 CUMULATIVE VALUES FROM THE EXISTING PORTFOLIO PLAN THE APPROPRIATE BASELINES TO USE, EVEN THOUGH THE PROPOSED PLANS ARE BASED ON PRO-RATA CALCULATIONS?

A. Yes. The Companies' 2013-2015 Portfolio Plans are based on the pro-rata savings stemming solely from installations forecast in the 2013-2015 period to ensure clarity surrounding budgets and TRC results. The Proposed Plans do not include the residual savings from measures installed through the Existing Plans that will be realized in 2013 due to pro-rated accounting, though these residual savings must be recognized when forecasting applicable energy efficiency savings for each year. Combining the cumulative annualized results from the Existing Plan with the pro-rata savings stemming from the Proposed Plan provides the most accurate forecast of the Companies' expected cumulative performance in 2013-2015.

ADDITIONAL INCREMENTAL ENERGY SAVING BENCHMARK

Q. DOES MR. SULLIVAN ACCURATELY CALCULATE THE ADDITIONAL INCREMENTAL ENERGY EFFICIENCY SAVINGS ACHIEVED RELATIVE TO THE ADDITIONAL INCREMENTAL BENCHMARKS?

A. No.

Q. WHAT ERRORS DOES MR. SULLIVAN MAKE IN HIS CALCULATIONS?

A. In both his pro-rata and annualized calculations, Mr. Sullivan does not account for the application of banked surplus energy savings the Companies' are estimating at the end of 2012. To the extent that an electric utility's actual energy savings exceeds its energy efficiency benchmark for any year, the surplus energy savings are applied towards its benchmarks in subsequent year(s).

Additionally, the "incremental annual" baseline calculated by Mr. Sullivan in DES-4 and DES-5 is not consistent with the incremental difference each year using the cumulative benchmark as a basis. As identified by the Companies' Witness Eberts, the calculation of the baseline differs from year to year based on the fully adjusted retail sales after energy efficiency impacts, on a rolling three year average basis. The correct way to calculate the additional incremental annual baseline is to use the difference in the yearly cumulative benchmarks, consistent with R.C. 4928.66(A)(1)(a).

I have corrected the tables DES-4 and DES-5 submitted by Mr. Sullivan to include banked surplus energy savings projected at the end of 2012 and the updated calculation for the additional incremental baseline, and they are attached as exhibits EGD-R2 and EGD-R3. These exhibits demonstrate that there are no shortfalls projected for any of the Companies using either pro-rata or annualized savings values in any of the program years on an incremental savings basis.

ENERGY BILL IMPACT ESTIMATES

Q. HAVE YOU REVIEWED EXHIBIT DES-1 ATTACHED TO MR. SULLIVAN'S DIRECT TESTIMONY?

A. Yes.

Q. DO YOU AGREE WITH HIS ANALYSIS?

A. No. The methodology used by Mr. Sullivan in his Direct Testimony, Exhibit DES-1, contains serious flaws and grossly overstates the alleged comparative additional service territory energy bill savings. These supposed energy bill savings are predicated on unrealistic and improper assumptions. As such, my testimony is not endorsing the analysis or claims made by Mr. Sullivan, but merely pointing out what I believe are fundamental errors in its execution.

First, as confirmed by Mr. Sullivan in his oral testimony, his analysis removes the net benefits of three programs from the Portfolio of Programs proposed by the Companies. Specifically, Exhibit DES-1, "Excludes mercantile program, direct load control program, T&D program," as sourced from "Application Attachments A, B, and C, Case No 12-2190-EL-POR, Tables 7." Using the same source files, I corrected this calculation in Exhibit EGD-R5, where the accurate net benefits under the Companies' proposed Portfolio with Mr. Sullivan's noted exclusions are not $139.9 million (DES-1 B5), but $160.3 million (EGD-R4 F18).

Next, this analysis takes as fact that the illustrative FirstEnergy portfolio of 1,995 GWh (DES-1 E9) will over-comply with the statutory benchmarks proportionate to AEP's portfolio, namely 125% of the Cumulative Incremental Benchmark. Exhibit DES-1 then multiplies this fictitious ***FirstEnergy*** portfolio (DES-1 E9) against the Net Benefits/GWh produced under ***AEP's*** portfolio plan (DES-1 D4). This methodology is highly suspect as the two portfolios have different cost structures, avoided costs, and ultimately produce different net benefits. Simply keeping other errors constant and using the corrected Net benefits/GWh for FirstEnergy rather than AEP would eliminate almost $53 million of the alleged additional benefits.

Finally, although the analysis states that the Companies' Cumulative Incremental Annual Target (DES-1 E5) was sourced from the testimony of Company Witness Eberts in Exhibit BDE-1, the value is incorrect. The correct values from BDE-1 produce a cumulative incremental annual target of 1,693 GWh.

Q. DO YOU HAVE OTHER CONCERNS WITH MR. SULLIVAN'S ANALYSIS IN EXHIBIT DES-1

A. Yes. Beyond these mechanical errors, I am concerned that the analysis was not performed with any consideration of the potential rate impacts or budgetary changes such suggestions would place on customers in 2013-2015. Mr Sullivan's analysis simply compresses energy efficiency savings that may be achieved in future years into the 2013-2015 time frame, rather than the already aggressive schedule as established in Senate Bill 221.

Exhibit EGD-R6 adjusts the total Companies' proposed 2013-2015 budgets, excluding the specific programs noted by Mr. Sullivan. The resulting adjusted budget is approximately $238 million dollars or roughly $217,000/GWh saved in the adjusted portfolio. While providing only a rough guideline using the Companies' proposed portfolio costs, one can see that the additional 898 GWh of energy efficiency savings suggested in DES-1 could cost an additional $195 million on top of the Companies' proposed program budgets of $248 million. While detailed modeling would be required to see if the supposed additional saving could even be achieved in the 2013-15 period and at what ultimate cost, it is clear that Mr. Sullivan's analysis focused solely on long term potential benefits, without regard for the near term rate impacts of such actions.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

Exhibit EGD - R1

Cumulative benchmarks/cumulative savings

Company	Year	Cumulative Benchmark	Projected Cumulative pro-rata Savings (MWh) from Portfolio	Cumulative Savings from Existing Plan (MWh)	Shortfall (MWh), Surplus (-MWh)	**Shortfall (% of cumulative benchmark)**
1	2	3	4	5	6	**7**
CEI				839,193		
	2013	608,007	63,849		-295,034	-
	2014	810,348	172,501		-201,346	-
	2015	1,015,987	285,767		-108,972	-
OE				792,062		
	2013	777,392	120,898		-135,568	-
	2014	1,033,169	328,307		-87,200	-
	2015	1,292,460	530,273		-29,875	-
TE				332,111		
	2013	339,969	62,393		-54,535	-
	2014	462,569	169,617		-39,159	-
	2015	594,962	266,360		-3,509	-
Notes:	(3) From Exhibit BDE-1, Column 10					
	(4) From Exhibit ECM-2, "Portfolio Plan Total - Cumulative Projected Savings" "MWh saved"					
	(5) From SC Set 3-INT-97, Company 2012 Cumulative Annualized Year-End Estimate					
	(6) = (3)-(4)-(5)					
	(7) = (6)/(3)*100					

Exhibit EGD - R2

Incremental benchmark/*pro-rata* savings

Company	Year	Baseline (GWh)	Cumulative Benchmark (MWh)	Cumulative Forecasted Savings (MWh)	Projected pro-rata banked savings balance (MWh)	Incremental annual benchmark (MWh)	Incremental *pro-rata* projected Portfolio savings (MWh)	Incremental *pro-rata* banked savings applied (MWh)	Shortfall (MWh)	**Shortfall (% of incremental benchmark)**
1	2	3	4	5	6	7	8	9	10	11
CEI	2012	18,602	427,846	839,193	411,347					
	2013	19,000	608,007	903,041	295,034	180,161	63,849	116,312	0	-
	2014	19,294	810,348	1,011,694	201,346	202,341	108,653	93,688	0	-
	2015	19,538	1,015,987	1,124,959	108,972	205,639	113,265	92,374	0	-
OE	2012	23,847	548,481	792,062	243,581					
	2013	24,294	777,392	912,960	135,568	228,911	120,898	108,013	0	-
	2014	24,599	1,033,169	1,120,369	87,200	255,777	207,409	48,368	0	-
	2015	24,855	1,292,460	1,322,335	29,875	259,291	201,967	57,324	0	-
TE	2012	10,170	233,910	332,111	98,201					
	2013	10,624	339,969	394,504	54,535	106,059	62,393	43,666	0	-
	2014	11,014	462,569	501,728	39,159	122,600	107,224	15,376	0	-
	2015	11,442	594,962	598,471	3,509	132,393	96,743	35,650	0	-
Notes:	(3) From Exhibit BDE-1 Column 8									
	(4) From BDE - 1 Column 10									
	(5) From SC Set 3-INT-97, Company 2012 Cumulative Annualized Year-End Estimate									
	(6) = (5)-(4)									
	(7) From (4), 2013 = Program Year ("PY")13-PY12, 2014 = PY14-PY13, 2015 = PY15-PY14									
	(8) From SC Set 3-INT-97									
	(9) Lower of = (7)-(8) or (6)									
	(10) = (7)-(8)-(9)									
	(11) = (10)/(7)*100									

2012 cumulative forecasted savings are annualized results from Existing Portfolio Plan as given in SC Set 3-INT-97, the result is a higher pro-rata banked savings balance in 2012.

The pro-rata projected portfolio savings only include programs from the Proposed Portfolio in 2013 with the residual pro-rata amount from 2012 being applied to the 2013 additional incremental benchmark through the applied banked savings amount.

Exhibit EGD - R3

Incremental benchmark/*annualized* savings

Company	Year	Baseline (GWh)	Cumulative Benchmark (MWh)	Cumulative Forecasted Savings (MWh)	Projected annualized banked savings balance (MWh)	Incremental annual benchmark (MWh)	Incremental *annualized* projected Portfolio savings (MWh)	Incremental *annualized* banked savings applied (MWh)	Shortfall (MWh)	**Shortfall (% of incremental benchmark)**
1	2	3	4	5	6	7	8	9	10	11
CEI	2012	18,602	427,846	839,193	411,347					
	2013	19,000	608,007	946,023	338,016	180,161	106,830	73,331	0	-
	2014	19,294	810,348	1,065,396	255,048	202,341	119,374	82,967	0	-
	2015	19,538	1,015,987	1,185,948	169,961	205,639	120,552	85,087	0	-
OE	2012	23,847	548,481	792,062	243,581					
	2013	24,294	777,392	990,249	212,857	228,911	198,187	30,724	0	-
	2014	24,599	1,033,169	1,214,221	181,052	255,777	223,972	31,805	0	-
	2015	24,855	1,292,460	1,412,513	120,053	259,291	198,292	60,999	0	-
TE	2012	10,170	233,910	332,111	98,201					
	2013	10,624	339,969	434,294	94,325	106,059	102,183	3,876	0	-
	2014	11,014	462,569	549,562	86,993	122,600	115,268	7,332	0	-
	2015	11,442	594,962	636,310	41,348	132,393	86,748	45,645	0	-
Notes:	(3) From Exhibit BDE-1 Column 8									
	(4) From BDE - 1 Column 10									
	(5) From SC Set 3-INT-97, Company 2012 Cumulative Annualized Year-End Estimate									
	(6) = (5)-(4)									
	(7) From (4), 2013 = Program Year ("PY")13-PY12, 2014 = PY14-PY13, 2015 = PY15-PY14									
	(8) From SC Set 3-INT-97									
	(9) Lower of = (7)-(8) or (6)									
	(10) = (7)-(8)-(9)									
	(11) = (10)/(7)*100									

Exhibit EGD-R4

Cumulative Benchmarks, Targets and Savings Forecast

Year	Energy Efficiency Benchmarks Percentage	Required Energy Efficiency Savings MWh	Forecasted Energy Efficiency Savings (Pro rata) MWh	Peak Demand Reduction Benchmarks Percentage	Required Peak Demand Reductions MW	Forecasted Peak Demand Reductions MW
Ohio Edison						
2013	3.20%	777,392	912,960	4.00%	215	226
2014	4.20%	1,033,169	1,120,369	4.75%	257	269
2015	5.20%	1,292,460	1,322,335	5.50%	290	302
Cleveland Electric						
2013	3.20%	608,007	903,041	4.00%	166	174
2014	4.20%	810,348	1,011,694	4.75%	195	204
2015	5.20%	1,015,987	1,124,959	5.50%	219	228
Toledo Edison						
2013	3.20%	339,969	394,504	4.00%	83	212
2014	4.20%	462,569	501,728	4.75%	99	110
2015	5.20%	594,962	598,471	5.50%	113	128

Note: For discussion purposes only, numbers are subject to change.

Exhibit EGD-R5

Cost Effectiveness Results for the Illuminating Company, Ohio Edison, and Toledo Edison as proposed in the Companies' 2013-15 Portfolio Plans, with corrected exclusions

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
(1)	**Total Portfolio (TRC)**		**CEI**	**OE**	**TE**	**Total**	**Source**
(2)	Portfolio	Costs	($78,135,546)	($117,332,662)	($64,419,719)	($259,887,926)	Company Tables 7 A-G
(3)		Benefits	$136,636,750	$234,759,224	$123,573,119	$494,969,093	
(4)	**Net Benefits**		**$58,501,204**	**$117,426,562**	**$59,153,400**	**$235,081,167**	
(5)							
(6)	**Ex-DES 1 Program Exclusions (TRC)**		**CEI**	**OE**	**TE**	**Total**	**Source**
(7)	Direct Load Control	Costs	($2,022,741)	($2,938,292)	($991,301)	($5,952,334)	Company Tables 7 A-B
(8)		Benefits	$839,219	$1,435,947	$190,009	$2,465,175	
(9)	Mercantile Customer Program	Costs	($1,232,605)	($1,409,608)	($600,778)	($3,242,991)	Company Table 7 D
(10)		Benefits	$19,969,774	$41,318,449	$20,223,178	$81,511,401	
(11)	T&D Improvements	Costs	$0	$0	$0	$0	Company Table 7 G
(12)		Benefits	$0	$0	$0	$0	
(13)	**Net Benefits - Exclusions**		**$17,553,646**	**$38,406,496**	**$18,821,108**	**$74,781,251**	
(14)							
(15)	**Portfolio with DES Exclusions (TRC)**		**CEI**	**OE**	**TE**	**Total**	**Source**
(16)	Adjusted Portfolio	Costs	($74,880,199)	($112,984,762)	($62,827,640)	($250,692,601)	Lines 2 - Σ(7,9,11)
(17)		Benefits	$115,827,757	$192,004,828	$103,159,932	$410,992,517	Lines 3 - Σ(8,10,12)
(18)	**Adjusted Net Benefits**		**$40,947,558**	**$79,020,066**	**$40,332,292**	**$160,299,916**	Lines 4 - 13

Notes:

- TRC cost and benefit values sourced from the respective Company tables: 7A-B (Direct Load Control), 7D (Mercantile Customer), and 7G (T&D)
- Program exclusions as noted in the "Direct Testimony of Dylan Sullivan on behalf of the National Defense Resource Council, June 5, 2012", filed October 5, 2012, Cases 12-2190 et. al., Exhibit DES-1

Exhibit EGD-R6

Program Costs with Ex. DES-1 Exclusions

	(A)	(C)	(D)	(E)	(F)	(G)
(1)	**Budget ($)**	**CEI**	**OE**	**TE**	**Total**	**Source**
(2)	Total Portfolio	$77,930,853	$120,952,877	$50,046,060	$248,929,790	Company Table 6C
(3)	**Exclusions Ex. DES-1**					
(4)	Direct Load Control	($2,639,279)	($4,123,581)	($1,064,500)	($7,827,360)	Company Table 6A
(5)	Mercantile Customer Program	($1,169,298)	($1,361,754)	($573,602)	($3,104,654)	Company Table 6A
(6)	T&D Improvements	$0	$0	$0	$0	Company Table 6A
(7)	Subtotal	($3,808,577)	($5,485,335)	($1,638,102)	($10,932,014)	Σ Lines 4, 5, 6
(8)						
(9)	**Adjusted Budget ($)**	**$74,122,276**	**$115,467,542**	**$48,407,958**	**$237,997,777**	Σ Lines 2, 7
(10)	**Adjusted Portfolio (GWh)**				**1,097.40**	Exhibit DES-1
(11)	**$/GWh**				**$216,874**	F9/F10

Notes:

- Program exclusions as noted in the "Direct Testimony of Dylan Sullivan on behalf of the National Defense Resource Council, June 5, 2012", filed October 5, 2012, Cases 12-2190 et. al., Exhibit DES-1