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Goldenberg Schneider, LPA

Final Report

Financial Audit 1 of the

Alternative Energy Resource Rider of the FirstEnergy Ohio Utility Companies

Case No. 11-5201-EL-RDR

for

The Public Utilities Commission of Ohio

June 15, 2012

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I. BACKGROUND

Ohio's current electric law, Senate Bill 221, initiated an alternative energy portfolio standard (AEPS) that requires electric distribution utilities and electric service companies to acquire specific minimum percentages of electricity from renewable and advanced energy resources.¹ The AEPS was codified into Ohio Administrative Code (OAC) 4901:1-40. The renewable energy requirements, which include specific solar requirements, included annual compliance obligations beginning in 2009.

On February 19, 2009, the Ohio Edison Company (OE), The Toledo Edison Company (TE), and The Cleveland Electric Illuminating Company (CEI) (or jointly referred to as Operating Companies, Companies or FirstEnergy) submitted an Amended Application in Case No. 08-935-EL-SSO that indicated the following for the recovery of costs associated with complying with the AEPS:

Renewable energy resource requirements for the period January 1, 2009 through May 31, 2011 will be met using a separate RFP process to obtain Renewable Energy Credits. A generation rider will be established to recover, on a quarterly basis, the prudently incurred cost of such credits pursuant to R.C. § 4928.64 including the cost of administering the RFP and carrying charges on any unrecovered balances including accumulated deferred interest. The aforementioned generation rider shall be reconciled quarterly and will be bypassable to a shopping customer consistent with R.C. 4928.64, and the supplier of such shopping customer shall provide the requisite renewable energy resources. Carrying charges shall accrue at a rate of 0.7066 percent per month and without reduction for accumulated deferred income taxes.

The Public Utilities Commission of Ohio (Commission) accepted the Companies' proposed treatment of prudently incurred AEPS compliance costs in its Second Opinion and Order in Case No. 08-935-EL-SSO.²

The Alternative Energy Resource Rider (Rider AER) is the bypassable generation rider used by the Operating Companies to recover their costs of complying with the AEPS, including but not limited to, the cost of:

- acquiring renewable energy credits (RECs);
- acquiring solar renewable energy credits (S-RECs);
- conducting requests for proposals (RFPs) for RECs or S-RECs; and
- associated carrying costs.

¹ Ohio Revised Code (R.C.) §§4928.64 and 4928.65

² Second Opinion and Order (p. 9) dated March 25, 2009

Rider AER, which began in October 2009, requires quarterly adjustments. The Operating Companies must make ongoing filings to the Commission no later than March 1st, June 1st, September 1st, and December 1st proposing adjusted rates to become effective one month later on April 1st, July 1st, October 1st, and January 1st, respectively, unless otherwise ordered by the Commission.³

This process has been tested in several cases. In Case No. 09-1922-EL-ACP, the Operating Companies requested approval of a Force Majeure determination pursuant to R.C. §4928.64(C)(4) and OAC 4901:1-40-06 for a portion of their 2009 solar energy resources (SER) benchmark requirement. The Commission found the application to be reasonable and granted the request. The Commission also noted that although the stipulation in the Electric Security Plan proceeding envisioned that FirstEnergy could meet its renewable energy resource requirements by using an RFP process to obtain RECs, FirstEnergy would be held responsible for meeting the statutory SER benchmarks through all means available, even if the RFP process was inadequate. Further, pursuant to R.C. §4928.64(C)(4)(c), the Commission's approval of FirstEnergy's application was contingent upon FirstEnergy meeting revised 2010 SER benchmarks, which were to be increased to include the shortfall experienced in the 2009 SER benchmarks. In response, the Operating Companies filed Annual Status Report and 2009 Compliance Review in Case No. 10-0499-EL-ACP.

The next year, the Operating Companies again requested approval of a Force Majeure determination for a portion of their 2010 solar energy resources benchmark requirement in Case No. 11-0411-EL-ACP. More specifically, the Operating Companies requested the Commission to reduce the Companies' Ohio Solar Benchmark to the amount of S-RECs they purchased towards their Ohio Solar Benchmark. The Operating Companies withdrew the application on April 11, 2011 in order to include additional Ohio S-RECs they later purchased. Re-filing the request also re-started the 90 day review period.

The re-filed application was included in the FirstEnergy's 2010 Annual Status Report and 2010 Compliance Review in Case No. 11-2479-EL-ACP. In the application, FirstEnergy asserted that despite its best efforts it was only able to acquire 1,629 of the 3,206 S-RECs required to meet its 2010 in-state SER benchmark. Consequently, FirstEnergy requested a force majeure determination for the 1,577 S-REC shortfall.

Staff received adverse comments from several parties arguing that the Companies exceeded the 3 percent cost consideration included in R.C. §4928.64(C)(3), While warranting further investigation, Staff determined that the 3 percent cost consideration was distinct from a force majeure determination and would be more appropriately addressed in the Companies' Rider AER proceedings. Consequently, Staff recommended

³ In Case No. 08-935-EL-SSO, the Commission approved Rider AER to recover REC costs through May 31, 2011. In Case No. 10-388-EL-SSO, the Commission approved the Operating Companies' Combined Stipulation and Recommendation extending Rider AER from June 1, 2011 through May 31, 2014.

that an external auditor should be retained by the Commission to assist in the investigation of these issues. Such an audit would review the Operating Companies' status relative to R.C. 4928.64(C)(3) as well as the reasonableness of their aggregate compliance costs. Additionally, the Operating Companies would pay for the audit and seek to recover this cost through Rider AER.

In its Order, the Commission accepted Staff's recommendation finding that FirstEnergy had presented sufficient grounds for force majeure and to reduce the Operating Companies' overall 2010 SER benchmark to the level of S-RECs acquired in 2010. Additionally, pursuant to R.C. §4928.64(C)(4)(c), the Commission's approval of FirstEnergy's application was contingent on FirstEnergy meeting its revised 2011 SER benchmark, which was increased to include the 2010 SER benchmark shortfall amount plus any shortfall carried over from the Companies' 2009 SER benchmark.

As a result, the Commission initiated Case No. 11-5201-EL-RDR for Rider AER review, including this Financial Audit 1 to review the financial aspects of the recovery mechanism under Rider AER and actual costs incurred from October 2009 through December 31, 2011. Attachment 2 of the RFP under this Case describes the scope of work to be performed and the requirements of the Audit in more detail.

Finally, the Operating Companies filed Annual Status Report and 2011 Compliance Review in Case No. 12-1246-EL-ACP. According to the filings, the Operating Companies assert that they were able to achieve full compliance with the 2011 renewable energy and solar energy benchmarks, including the solar carryover from 2009 and 2010.

II. AUDIT OBJECTIVES AND SCOPE

Goldenberg Schneider, LPA (Goldenberg) was selected by the Commission to conduct Financial Audit 1 of the Companies' operation under Rider AER. Generally speaking, Goldenberg was to verify the mathematical accuracy of the Companies' calculations involving Rider AER and the associated compliance transactions, as well as to review the Operating Companies' accounting treatment of such compliance activities. Goldenberg was also to evaluate the Companies' status relative to the 3% provision contained within R.C. §4928.64(C)(3). To do so, Goldenberg's considered the Operating Companies' Rider AER filings and background and supporting information for the period July 1, 2009 to December 31, 2011.

More specifically, the scope and objectives of Financial Audit 1 were to:

- Determine that the Companies have procedures in place to properly record costs associated with processing Rider AER receipts, expenditures, deferrals of unrecovered costs and carrying cost calculations.
- Review the Companies' Rider AER quarterly filings during the audit period to verify the accuracy of the calculations.
- Review the individual components (including but not limited to transactions of RECs and S-RECs and costs of implementing associated RFPs) that may

have been included within the Companies' Rider AER calculations in order to verify the costs were appropriately included.

- Verify the Rider AER filings include all appropriate revenues billed.
- Review the accuracy of the calculations related to any carrying charges included in the Companies' quarterly Rider AER calculations.
- Verify that Rider AER rates were properly applied to customer bills.
- Compare the costs recovered through the Companies' Rider AER during the audit period to the costs incurred.
- Review the Companies' accounting treatment related to Rider AER and associated compliance activities.
- Review the accuracy of projected costs, sales volumes and Rider AER rates.
- Review the Companies' status relative to the 3% provision contained within Ohio Revised Code 4928.64(C)(3) and as further detailed in the Ohio Administrative Code Rule 4901:1-40-7.
- Review any other specific items as identified by the Commission or its Staff.

III. FINANCIAL AUDIT STANDARDS UTILIZED

This review was performed in accordance with the standards as defined in RFP No. EE12-FEAER-1. Goldenberg performed the following activities in this audit:

- Reviewed Ohio Revised Code § 4928.64 and 4928.65 and Ohio Administrative Code Rule 4901:1-40 to understand the alternative energy portfolio standards and the annual compliance obligations of electric distribution utilities and electric service companies.
- Reviewed the Commission's Second Opinion and Order approving the Companies' Stipulation and Recommendation in Case No. 08-935-EL-SSO as it applies to RECs, S-RECs and Rider AER to understand the Companies' compliance requirements.
- Reviewed the Commission's Opinion and Order approving the Companies' Combined Stipulation and Recommendation in Case No. 10-388-EL-SSO as it applies to RECs, S-RECs and the continuation of Rider AER to understand the Companies' compliance requirements.
- Reviewed the documents in Case No. 09-1922-EL-ACP, In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Approval of a Force Majeure Determination for a Portion of The 2009 Solar Energy Resources Benchmark Requirement Pursuant to Section 4928.64(C)(4) of the Ohio Revised Code.
- Reviewed the documents in Case No. 10-0499-EL-ACP, In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company's Annual Status Report and 2009 Compliance Review.

- Reviewed the documents in Case No. 11-0411-EL-ACP, In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Approval of a Force Majeure Determination for a Portion of The 2010 Solar Energy Resources Benchmark Requirement Pursuant to Section 4928.64(C)(4) of the Ohio Revised Code and 4901:1-40-06 of the Ohio Administrative Code.
- Reviewed the documents in Case No. 11-2479-EL-ACP, In the Matter of the Alternative Energy Status Report of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Approval of a Force Majeure Determination for Their In-State Solar Resources Benchmark Pursuant to R.C. § 4928.64(C)(4)(a).
- Reviewed the documents in Case No. 11-5201-EL-RDR, In the Matter of the Review of the Alternative Energy Rider Contained in the Tariffs of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company.
- Reviewed the documents in Case No. 12-1246-EL-ACP, In the Matter of the Annual Alternative Energy Status Report of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company.
- Interviewed personnel responsible for the purchase of RECs and S-RECs.
- Interviewed a representative from the consultant retained to be the administrator of the RFP process.
- Interviewed personnel responsible for the 3% provision.
- Interviewed personnel involved with accounting for Rider AER revenues and expenditures.
- Interviewed personnel involved with billing Rider AER.
- Interviewed personnel involved in the calculation of Rider AER and preparation of Rider AER tariff filings.
- Reviewed quarterly Rider AER filings and supporting work papers
 - Reviewed REC, S-REC, administrative expenses and carrying cost components of the Rider AER rate;
 - Reviewed the forecasting methods used to project non-shopping sales volumes;
 - Verified the accuracy of Rider AER tariff rates in the billing system;
 - Verified the mathematical accuracy of Rider AER calculations;
 - Traced calculated Rider AER rates to quarterly filed tariff sheets;
- Reviewed supporting documentation, including:
 - Relevant pages from the Companies' Aligne subledger
 - o Relevant pages from the Companies' general ledger
 - Relevant bidder and supplier contracts.
 - Work papers supporting the costs to be recovered in each Rider AER calculation.
- Traced compliance costs included in the Rider AER filings to the applicable contract and/or invoice.

- Verified the Companies' calculation of carrying charges booked in the Regulatory Asset and to be included in Rider AER.
- Randomly selected and tested customer bills from each quarter of the audit period to confirm application of the Rider AER rates in the Companies' billing system.
- Traced selected customer bills to the monthly billing report and to the proper General Ledger revenue account.
- Verified the Companies' accounting for Rider AER revenues, REC inventory, REC expenses, and the related Regulatory Asset.
- Reviewed RFP consulting costs.
- Confirmed renewable energy resource targets (Ohio, non-Ohio, solar and non-solar)
- Reviewed the Companies' calculation of the 3% Test and explored alternative methods of calculating the 3% Test.
- Discussed the impact of the renewable generation on the cost of electricity for the years 2009 2011.
- Reviewed Sarbanes Oxley controls regarding AEPS compliance costs, revenues recognition and the Regulatory Asset balance.
- Selected the four largest REC suppliers representing more than 98% of all RECs purchased and verified the transactions from the bid, to the contract, to the invoice, to the Aligne system and to the general ledger inventory account.
- Compared balances to the FERC Form 1 where applicable.

IV. EXECUTIVE SUMMARY

The following is a summary of Goldenberg's significant findings, conclusions, and recommendations. FirstEnergy's processes, procedures, and practices provide assurance that the information contained in its Rider AER filings can be relied upon for setting Rider AER rates after correcting the findings noted in this Financial Audit 1 Report.

A. Calculation of Quarterly Rider AER

Goldenberg verified the mathematical accuracy of the quarterly Rider AER calculations and traced the data to various sources provided by FirstEnergy. We observed several issues, but these issues, noted below, did not result in a large variance in the Rider. The significant recommendations are:

- 1. The quarterly calculations should recover all of the appropriate costs during the following calendar quarter.
- 2. The costs to be recovered should include estimated REC expenditures, RFP and other administrative costs and estimated carrying costs.
- 3. Each quarterly calculation should be trued-up and any over or under recovery included in the calculation two quarters later.

- 4. Each Operating Company should charge the overall Rider AER rate calculated for the quarter to all rate classes rather than allocating the overall rate to rate classes based on Loss Factors.
- 5. Forecasted sales volumes for non-shopping customers to be included in Rider AER calculations should be reviewed each quarter and the best estimate at the time should be used for cost recovery to help assure appropriate recovery.

B. Calculation of Carrying Costs

FirstEnergy should calculate carrying costs for each Operating Company based on the difference between monthly revenues booked and expenditures incurred for the month. Instead, carrying costs are being calculated based on the difference between revenues booked and expense recognized rather than cash expenditures.

C. Purchase of RECs

We were able to verify invoices to the contracts.

D. Retirement of RECs

FirstEnergy used a different method for selecting RECs to be retired in each of the three year periods, 2009 - 2011. The 2011 policy should be used in the future except in the third tier where the highest cost RECs should be retired first to reduce future carrying costs, recognizing necessarily that any RECs expiring first, regardless of price, will need to be retired first. It should also be acknowledged that the Companies are currently required by the Commission to retire Residential REC Program and 10-year RFP RECs prior to RECs obtained from other sources.

E. 3% Provision as Provided for in the Ohio Revised Code

A range of alternative methodologies to determine the Operating Companies' status relative to the three percent provision are discussed in Section VI. To assist the Commission in evaluating alternative methodologies to calculate the 3% provision, we recommend the Commission require each Operating Company to develop the following 3% provision calculations:

- A projected calculation of the 3% provision for the next calendar year.
- A projected calculation of the 3% provision for the balance of the current SSO period.
- A historical calculation of the 3% provision to determine the Companies' status with regard to the three percent provision.

V. FINDINGS AND CONCLUSIONS

A. Summary of Rider AER Rates

Cleveland Electric Illuminating (cents per kWh)

	2009		20	10	be Est	Apple and the		11	
alter den er state den er state Reference den er state d	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Overall	. 0611	. 3486	.3313	.3017	.4384	.4612	.4699	.4699	.4699
RS	. 0623	. 3557	.3380	.3078	.4473	.4706	.4795	.4795	.4795
GS	. 0623	. 3557	.3380	.3078	.4473	.4706	.4795	.4795	.4795
GP	. 0602	. 3434	.3263	.2972	.4318	.4543	.4628	.4628	.4628
GSU	. 0585	. 3337	.3171	.2888	.4196	.4415	.4498	.4498	.4498
GT	. 0584	. 3334	.3168	.2885	.4192	.4410	.4493	.4493	.4493
STL	. 0623	. 3557	.3380	.3078	.4473	.4706	.4795	.4795	.4795
TRF	. 0623	. 3357	.3380	.3078	.4473	.4706	.4795	.4795	.4795
POL	. 0623	. 3557	.3380	.3078	.4473	.4706	.4795	.4795	.4795

Ohio Edison (cents per kWh)

	2009	G A	201	0			20	11	
	Q4	Q1	Q2	€ Q3	Q4	Q1	Q2	Q3-2	Q4
Overall	. 0647	. 3288	. 3317	.2844	.3097	.2927	.2776	.2776	.2776
RS	. 0660	. 3354	. 3384	.2901	.3159	.2986	.2832	.2832	.2832
GS	. 0660	. 3354	. 3384	.2901	.3159	.2986	.2832	.2832	.2832
GP	. 0637	. 3238	. 3266	.2800	.3050	.2882	.2734	.2734	.2734
GSU	. 0619	. 3147	. 3174	.2722	.2964	.2801	.2657	.2657	.2657
GT	. 0619	. 3143	. 3171	.2719	.2961	.2798	.2654	.2654	.2654
STL	. 0660	. 3354	. 3384	.2901	.3159	.2986	.2832	.2832	.2832
TRF	. 0660	. 3354	. 3384	.2901	.3159	.2986	.2832	.2832	.2832
POL	. 0660	. 3354	. 3384	.2901	.3159	.2986	.2832	.2832	.2832

Toledo Edison (cents per kWh)

	2009	indrift []	20	10	r se feitur		20	11	
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Overall	. 0696	. 3363	.3211	.3255	.4232	.4031	.3695	.3695	.3695
RS	. 0719	. 3472	.3316	.3361	.4370	.4162	.3815	.3815	.3815
GS	. 0719	. 3472	.3316	.3361	.4370	.4162	.3815	.3815	.3815
GP	. 0694	. 3352	.3201	.3244	.4218	.4018	.3683	.3683	.3683
GSU	. 0674	. 3258	.3110	.3153	.4099	.3905	.3579	.3579	.3579
GT	. 0674	. 3254	.3107	.3150	.4095	.3901	.3576	.3576	.3576
STL	. 0719	. 3472	.3316	.3361	.4370	.4162	.3815	.3815	.3815
TRF	. 0719	. 3472	.3316	.3361	.4370	.4162	.3815	.3815	.3815
POL	. 0719	. 3472	.3316	.3361	.4370	.4162	.3815	.3815	.3815

The overall rates stated above were traced to the Rider AER calculations and the rates by rate schedule were traced to the quarterly tariff filings with the Commission. They were also traced to a sample bill calculation for each quarter and the rates used for billing were correct without exception.

Below is a comparison of the Rider AER rates for FirstEnergy's Operating Companies (overall) to the other Investor Owned Utilities in Ohio during the audit period⁴:

	2009		201	0		ж. ЦЦ Ж	20	<u>1</u>	
	Q4	Ql	Q2	Q3	Q4	QL	_Q2	Q3	Q4
CEI	.0611	.3486	.3313	.3017	.4384	.4612	.4699	.4699	.4699
OE	.0647	.3288	.3317	.2844	.3097	.2927	.2776	.2776	.2776
TE	.0696	.3363	.3211	.3255	.4232	.4031	.3695	.3695	.3695
DP&L	.0115	.0115	.0115	.0115	.0115	.0115	.0115	.0115	.0115
DE-O	.1378	.0209	.0274	.0264	.0420	.0358	.0339	.0350	.0341
CSP	.0077	.0709	.0593	.0380	.0763	.0802	.0773	5	5
OP	.0079	.0582	.0480	.0338	.0628	.0603	.0589	5	5

Ohio Investor	Owned	Utilities ((cents	ner kWh)
	O W HCu	U IIIIIUS		

The table above shows that FirstEnergy's Operating Companies consistently have a significantly higher Rider AER rate than the other Ohio Investor Owned Utilities.

FirstEnergy has allocated it's Operating Companies' overall quarterly Rider AER rate to the various rate schedules using each rate classes' Loss Factors compared to FirstEnergy's overall Loss Factor. The Company explains its reason for this as being consistent with the design of the energy portion of its Generation Service Rider. They state that "since the RECs are the attributes associated with renewable energy generated (one REC is associated with each MWh of renewable energy produced) it is consistent to treat the design of these riders in the same manner."⁶

The overall difference to FirstEnergy on a consolidated basis of billing Rider AER at the overall rate versus the allocated rate is minimal, approximately \$200,000 for the audit period. However, the difference by rate schedule is more significant. The following shows the consolidated difference between billing at the overall rate versus the allocated rates for the audit period:

⁴ Several of the companies included their Alternative Energy Portfolio Standards compliance costs in their Fuel Adjustment Clause Rider. Either these costs were broken out separately in the filing or were calculated based on data from the filing.

⁵ We were unable to obtain values for these two quarters.

⁶ Response to GS Set-3 INT-13.

Rate Class	Bill Difference ⁷
RS	(\$ 1,122,429)
GS	(\$ 494,613)
GP	\$ 63,310
GSU	\$ 262,213
GT	\$ 1,165,730
Lighting	(\$ 70,971)

Since Rider AER is calculated and billed on delivered kWh and the RECs / S-RECs are purchased to meet a compliance requirement based on billed sales, we recommend using one Operating Company rate (the overall rate) for all of that Operating Companies' rate schedules. This would also eliminate the detriment to the residential, commercial and lighting customers to the benefit of the larger customers.

Quarter	CEI	OE	TE
2009 - Q4	1,351,015	2,031,437	807,855
2010 - Q1	7,492,657	10,286,065	3,421,070
- Q2	5,721,618	7,928,498	2,665,260
- Q3	5,246,124	7,235,554	2,932,623
- Q4	6,013,287	6,151,145	3,386,202
Total 2010	24,473,686	31,600,862	12,405,155
2011 - Q1	4,457,696	5,655,539	3,104,800
- Q2	3,957,806	4,304,778	2,431,224
- Q3	4,065,314	4,848,020	2,677,777
- Q4	3,571,870	4,161,167	2,462,187
Total 2011	16,052,686	18,969,504	10,675,988

B. Summary of Rider AER Revenues

A sample of customer bills from each quarter was selected and the Rider AER charge was manually recalculated. These amounts were verified via FirstEnergy's Bill Verification Tool. This verified that the correct tariff rates were in effect for each quarter. The revenue was then traced to the monthly billing reports. These monthly billing reports were traced to the appropriate Operating Company's General Ledger by revenue account⁸. All amounts were verified with no notable exceptions.

⁷ W/P RMP-1

⁸ W/P RMP-2 and GS Set-1 INT-11.

C. Summary of Rider AER Compliance Expenses⁹

2009 Expenses (000's)

Description	OE OE	CEL	TE
3Q			
REC Expense			
RFP Costs	\$31	\$31	\$31
Carrying Costs	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal	\$31	\$31	\$31
40			
REC Expense			
RFP Costs	\$157	\$159	\$149
Carrying Costs	<u>(\$19)</u>	<u>(\$11)</u>	<u>(\$6)</u>
Subtotal	\$138	\$148	\$143
Total 2009	\$169	\$179	\$174

2010 Expenses (000's)

Description	OE	CEL	TE
1Q			
REC Expense	\$17,882	\$14,474	\$7,647
RFP Costs	\$3	\$3	\$3
Carrying Costs	<u>(\$92)</u>	<u>(\$56)</u>	<u>(\$24)</u>
Subtotal	\$17,793	\$14,421	\$7,626
2Q	· · · · · · · · · · · · · · · · · · ·		
REC Expense	\$20,094	\$16,260	\$8,648
RFP Costs	\$147	\$85	(\$41)
Carrying Costs	<u>\$257</u>	<u>\$238</u>	<u>\$140</u>
Subtotal	\$20,498	\$16,583	\$8,747
3Q			
REC Expense			
RFP Costs	\$95	\$78	\$42
Carrying Costs	<u>\$311</u>	<u>\$296</u>	<u>\$175</u>
Subtotal	\$406	\$374	\$217
4Q			
REC Expense	\$3,339	\$2,664	\$1,416
RFP Costs	\$2	\$1	\$1
Carrying Costs	\$193	\$200	\$119
Subtotal	\$3,534	\$2,865	\$1,536
Total 2010	\$42,231	\$34,243	\$18,126

⁹ With the exception of December 2011, the cost of RECs was recorded as an expense in the month retired. Carrying costs can be negative in periods where revenues exceeded expenses. There were corrections in allocations of RFP costs which caused TE to have negative costs for 2010 Q2.

Description	OE	CEI	TE A
1Q			
REC Expense	· · · · · · · · · · · · · · · · · · ·		
RFP Costs	\$44	\$35	\$18
Carrying Costs	<u>\$127</u>	<u>\$136</u>	<u>\$74</u>
Subtotal	\$171	\$171	\$92
2Q			
REC Expense	\$4,054	\$3,235	\$1,720
RFP Costs	\$26	\$19	\$9
Carrying Costs	<u>\$100</u>	<u>\$109</u>	<u>\$50</u>
Subtotal	\$4,180	\$3,363	\$1,779
3Q			
REC Expense			
RFP Costs	\$29	\$21	\$11
Carrying Costs	<u>\$17</u>	<u>\$36</u>	<u>\$3</u>
Subtotal	\$46	\$57	\$14
4Q			
REC Expense	\$24,942	\$19,236	\$10,161
RFP Costs	\$99	\$72	\$36
Carrying Costs	<u>\$15</u>	<u>\$26</u>	<u>\$(14)</u>
Subtotal	\$25,056	\$19,334	\$10,183
Total 2011	\$29,453	\$22,925	\$12,068

2011 Expenses (000's)

D. Clerical Accuracy of Rider AER Filings

FirstEnergy calculated Rider AER quarterly from the fourth quarter of 2009 through the second quarter of 2011. The following minor clerical errors were identified.¹⁰

- 2010 Q1, page 7 of 8 line 4 should be October revenues.
- 2010 Q2, page 4 of 6 used November and December 2009 estimate rather than February and March 2010.
- 2010 Q2, page 5 of 6 lines 4 6 should be replaced by October through December 2009 actual revenues.
- 2010 Q2, page 2 of 5 TE's rate by rate schedule is incorrectly rounded for RS, GS, GP and Lighting.

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¹⁰ References are to GS Set-1 INT-13.

- From 2010 Q2 through 2011 Q2, the allocation percentages used to allocate costs to the Operating Companies on page 1 are not rounded to the percentages stated.
- 2010 Q3, page 3 of 6 could not trace estimated non-shopping kWh other than for rate RS.
- 2010 Q4, page 3 of 4 could not trace OE's Lighting kWh for August and September.
- 2010 Q4, page 4 of 4 calculation on line 15 is incorrect. The revenues on line 13 should be subtracted <u>after</u> the gross-up calculation.
- 2011 Q1 and Q2, page 5 of 5 the calculation of 2011 REC expense estimate is not logical. The calculation is using the Rider AER rate used to recover remaining 2010 costs times the July through December 2011 estimated kWh to determine the 2011 REC expense estimate.

In addition to these minor clerical errors, the following substantial issues were found relating to rider calculation caused by other than clerical accuracy.

- 1. The Stipulation and Recommendation approved by the Commission in Case No. 08-935-EL-SSO provides for Rider AER to recover, on a quarterly basis, the prudently incurred cost of RECs including RFP costs and carrying charges. FirstEnergy has decided that the rider should be calculated to recover costs over periods longer than a quarter. The initial filing for the fourth quarter of 2009 was calculated to recover the 2009 costs over a nine month period from October 2009 through June 2010. The first quarterly calculation for 2010 was to recover the remaining 2009 costs and all 2010 costs over the calendar year 2010. Subsequent 2010 quarterly calculations spread the cost recovery over periods of nine months. Similarly, the 2011 rider calculations were to recover prior unrecovered costs plus the 2011 costs over the calendar year 2011 and possibly beyond 2011. FirstEnergy explains these long term calculations as an attempt to levelize the rate and avoid large swings in the Rider AER rate. We recommend the quarterly calculations follow the Stipulation and each should attempt to recover the estimated costs to be incurred in that particular quarter. The Operating Companies received approval to recover REC costs as incurred rather than waiting for the annual REC retirement and expense recognition. The RECs are purchased throughout the year so the costs should be incurred somewhat regularly throughout the year. This will have the effect of levelizing the rider rate.
- 2. The Stipulation and Recommendation also states the rider shall be reconciled quarterly. FirstEnergy has not shown that it attempted to reconcile the rider for any period to date. In fact, costs from 2009 remain in the Rider AER calculation for periods in 2011. FirstEnergy states it reviews the Regulatory Asset balance and as that balance nears zero, the rider becomes reconciled. We recommend the Company reconcile each year's actual recoverable expenditures (including carrying costs) to billed revenue and determine any

remaining 2011 over or under recovery balance. Going forward, the quarterly rider calculation should be reconciled and trued-up in the second quarter following the initial estimated calculation.

- 3. The Stipulation and Recommendation in Case No. 08-935-EL-SSO, reinforced by the approved Stipulation and Recommendation in Case No. 10-388-EL-SSO, allows the Operating Companies to recover the costs of RECs as purchased rather than waiting until the RECs are retired to meet the Operating Companies compliance obligation under ORC Sec. 4928.64 and 4928.65. In the Rider AER calculations, FirstEnergy attempted to recover the estimated annual compliance obligation rather than the estimated cost of RECs, other administrative costs and carrying costs to be incurred during the ensuing quarter. We recommend the quarterly Rider AER calculation attempt to recover only the estimated costs to be incurred during that quarter, but all of those expected costs, including administrative costs and carrying costs.
- 4. In 2011, the Company calculated Rider AER rates for the first and second quarters only. For quarters three and four, they said the rate would remain the same because it would not change materially if they recalculated it. We recommend the Rider must be calculated each quarter. It is nearly impossible for the rate to remain constant from quarter to quarter with costs and billing statistics changing all the time. In addition, if the rider is reconciled and trued-up each quarter, there will always be over or under recoveries to be included in the quarterly rider calculations.
- 5. See Section I. below for a discussion of the estimated REC expenditures and administrative costs to be recovered.

E. Individual Components Included in Rider AER for Recovery

The Stipulation and Recommendation in Case No. 08-935-EL-SSO allows FirstEnergy's Operating Companies to recover all of their prudently incurred costs related to REC purchases plus carrying costs on the unrecovered balance. Below are the exceptions we found to the recovery of these costs.

1. One of the costs to be recovered via Rider AER is carrying costs on the unrecovered balance of REC expenditures and other allowable costs. FirstEnergy performed a calculation of estimated carrying costs for the year 2010 in conjunction with its 2010 Q1 Rider AER calculation. This calculation provided an estimated carrying cost amount of \$246,766 for year 2010¹¹. The Company chose not to include this amount in its Rider AER calculation and did not recalculate a carrying cost estimate through the remainder of the audit period. Their reasoning was the amount was "nominal" so it was not included

¹¹ GS Set-1 INT-13, Attachment 2, page 6 of 8.

in the recovery calculation. FirstEnergy's own calculation of carrying costs on its Regulatory Asset provides a consolidated total of \$2,400,132 for the twenty seven months of the audit period. Our calculation (discussed later) provides a much greater carrying cost amount to be recovered. We recommend some reasonable amount of carrying costs be included in the Rider AER calculation each quarter. This amount can be a budget estimate, a calculated amount or the prior quarter's actual, but it should be included in the calculation.

2. FirstEnergy was authorized to recover other administrative costs such as the costs of its RFPs through Rider AER. In its 2010 Q1 calculation, the Company included \$101,604 of costs for Navigant (its RFP consultant) that had not been expensed. These costs remained in the calculation through the audit period and no additional administrative expenses were included. Our calculation provides a total amount of \$1,376,909 of administrative costs on a consolidated basis to be recovered by the Operating Companies through Rider AER¹². An estimate of these costs should be included quarterly and actual costs included in the true-up to recover these costs on a timely basis.

F. Calculation of Carrying Costs

FirstEnergy calculates carrying costs each month on each Operating Company's Regulatory Asset account using the approved interest rate of 0.7066% per month. The Regulatory Asset account is debited or credited each month with the net of Rider AER revenues less REC cost and administrative costs expensed. Carrying costs have also been recorded in this account. Based on our review of the work papers supporting the Regulatory Asset activity and the calculation of carrying costs thereon, it appears that Regulatory Asset is being properly adjusted by the net of revenues and expenses. However, we do not agree with the calculation of carrying costs.

Carrying costs are intended to make the Company whole for the interest cost of money expended to comply with regulatory requirements. In this case, that is the purchase of RECs and the related administrative costs as compared to the recovery of Rider AER revenues. We recommend FirstEnergy calculate carrying costs based on the cost of RECs when purchased rather than when the RECs are expensed. This is in line with the REC cost recovery authorized by the Commission in Case No. 08-935-EL-SSO. As calculated by FirstEnergy, consolidated carrying costs for the audit period were \$2,400,132. If they were calculated based on REC expenditures, the consolidated Carrying Costs would be \$6,592,378¹³.

As discussed in section E.1. above, the Stipulation and Recommendation states that the quarterly Rider AER calculation should include carrying costs on any unrecovered balance of prudently incurred costs of RECs. This is not being included in the quarterly rider calculation. An estimate of the carrying costs for the period November 2009

¹² W/P RMP-4, total of lines 2, 5, 6, 9 and 10.

¹³ W/P RMP-3.

through December 2010 was calculated for the first quarter 2010 Rider AER calculation. This estimate was included in the rider rate for the first quarter of 2010 but was not included subsequent to that calculation. FirstEnergy's reason for this omission was that the amount determined for 2010 (\$246,766) was "nominal" and they decided not to include any amount in future calculations. We recommend FirstEnergy should calculate a carrying cost estimate for each quarterly filing as set forth in the Stipulation. In some cases, the carrying cost could be a negative amount which would reduce the amount of costs to be recovered from customers and thereby reduce the rider rate.

G. Comparison of Costs Recovered to Costs Incurred

Throughout the audit period, the Operating Companies' Rider AER calculations were aimed at recovering the cost of RECs delivered plus prudently incurred administrative costs. The total consolidated REC expenditures and administrative expenses for the audit period were \$166,100,451¹⁴. This amount does not include carrying costs that FirstEnergy calculated in the amount of \$2,400,132. Rider AER revenues booked for the audit period, excluding CAT, totaled \$118,060,433¹⁵ on a consolidated basis. Based on these amounts, FirstEnergy has under collected \$50,440,151 as of December 31, 2011.

If the Rider AER calculation had been performed for recovery of costs on a quarterly basis, and included some estimate of administrative costs and carrying costs, the rider would have recovered considerably more of the incurred costs. If reconciliations had been performed quarterly, the over/under recovery could have been included within two quarters for recovery or return to customers. Our recalculation of the Rider, including RECs purchased, administrative costs, carrying costs and quarterly reconciliations, resulted in an under collection of $23,431,795^{16}$ as of December 31, 2011. We recommend one fourth of the balance of the 2009 – 2011 under recovery be included in the next four quarterly Rider AER calculations.

H. Accounting Treatment Related to Rider AER

As part of the audit, we reviewed FirstEnergy's Sarbanes Oxley policy and procedures specific to accounting for RECs and Rider AER. FirstEnergy began including Rider AER's Regulatory Asset in its review in the third quarter of 2009, coincidental with the initial costs of the REC program being incurred. We reviewed the Accounting Guidance Memo and the Interpretation Memo for Rider AER¹⁷ and several quarterly review write-ups of the Rider AER Regulatory Asset reconciliation. Based on our review, we conclude that FirstEnergy has controls in place to properly record Rider AER revenues and expenses and to record and reconcile the Regulatory Asset balance.

¹⁴ W/P RMP-4, line 12.

¹⁵ W/P RMP-4, line 22.

¹⁶ W/P RMP-5 through RMP-13. This recalculation was performed using data available at the time the original calculation was performed however, some assumptions were made. For example, a constant of \$100,000 was used each quarter for administrative expenses and beginning with 2010 Q2, the actual carrying costs for the prior quarter was included.

¹⁷ GS Set-9 INT-4, Attachments 1 and 2.

There are several different types of transactions that must be recorded in connection with Rider AER. These include:

- Record Rider AER revenues.
- Record the purchase of RECs.
- Record the retirement of RECs.
- Record expenses related to the purchase and retirement of RECs (i.e. Navigant RFP costs, broker fees and GATS costs).
- Record the deferral of the difference between revenues and expenses.
- Record carrying costs.

Record Rider AER revenues

The billed Rider AER revenues are recorded each month in specific subaccounts of FERC Account 440 - Residential Sales; Account 442 - Commercial and Industrial Sales; and Account 444 - Public Street and Highway Lighting. Subaccount 440083 is used for recovery of Rider AER from residential customers. Subaccount 442121 is used for recovery of Rider AER from commercial customers. Subaccount 442126 is used for recovery of Rider AER from company use customers. Subaccount 442221 is used for recovery of Rider AER from industrial customers. Subaccount 442221 is used for recovery of Rider AER from public street and highway lighting customers.

As part of our bill verification testing, a sample of bills for each quarter in the audit period was selected. The Rider AER charge was manually recalculated and verified using FirstEnergy's Bill Verification Tool. A number of the bills were then selected and traced to the monthly revenue report and then to the General Ledger activity for that month. No exceptions were noted.

Each month, the Operating Companies record an amount in each revenue account for unbilled revenues. This is reversed the following month when a new unbilled amount is recorded. Also, several large industrial customers request to be billed on a calendar month basis. FirstEnergy manually prepares bills for these customers each month and makes an adjustment to the revenue account for the billing difference. Finally, adjustments are made in the revenue accounts to reclassify some customers between rate classes¹⁸. A sample of these adjustments was reviewed with no exceptions noted. Based on this review, we conclude that FirstEnergy is recording Rider AER revenues accurately and in the proper accounts.

Record Purchase of RECs

Forty-seven S-RECs were purchased from eight customers under the Residential Renewable Energy Credit Program in 2010 and 2011¹⁹.

¹⁸ W/P RMP-2.

¹⁹ W/P DLS-9.

The Companies retained Navigant Consulting, Inc. to administer six Requests for Proposals (RFP), establishing the right to purchase Renewable Energy Credits (RECs).

- 7-15-09 Purchase Ohio solar RECs, all-states solar RECs, Ohio all renewable RECs and all-state all renewable RECs for 2009 and/or 2010 and/or 2011.
- 9-23-09 Purchase Ohio solar RECs, all-states solar RECs and Ohio all renewable RECs for 2009 and/or 2010 and/or 2011.
- 7-1-10 Purchase Ohio solar RECs, all-states solar RECs, Ohio all renewable RECs and all-state all renewable RECs for 2010 and/or 2011.
- 3-8-11 Purchase Ohio solar RECs for 2010.
- 8-1-11 Purchase Ohio solar RECs and all-states solar RECs for 2009 and/or 2010 and/or 2011.
- 9-13-11 Purchase Ohio solar RECs and Ohio all renewable RECs in equal amounts annually for 2011 through 2020.

The results of the RFP's are shown in GS Set-1 INT-16.

Once a bid is accepted, FirstEnergy enters into a contract with the bidder that specifies the quantity, cost and attributes (i.e. solar, non-solar, in-state and all states) of the RECs to be purchased. When the RECs are ready to be transferred to FirstEnergy, the owner must release the RECs to the Load Serving Entity (LSE) via Generation Attribute Tracking System (GATS). The LSE must then accept the RECs via GATS for the transfer to be completed to the LSE's Clean Energy Portfolio Standard (CEPS) subaccount.

PJM's Environmental Services owns and operates GATS. GATS is a regional information system that tracks the environmental attributes of generation, and will support reporting, compliance and verification requirements related to environmental compliance and related markets. GATS provides for:

- Banking certificates to accommodate varying certificate life spans as determined by state policy or state regulation.
- Enabling various state programs and their definitions of preferred attributes.
- Moving certificates to non-utilities (i.e. direct sales to retail entities).
- A bulletin board to facilitate bilateral trades.

FirstEnergy maintains one GATS account for all three Operating Companies. Within this account there can be four types of subaccounts:

- Active. This subaccount is the initial point of deposit for any REC into GATS.
- Clean Energy Portfolio Standard (CEPS). This subaccount holds RECs meeting the state's renewable portfolio standard requirements. It allows the RECs to be retained after the trading period ends.

- Retail LSE. This subaccount is used by retail Load Serving Entities to designate certificates to be used for disclosure label purposes or renewable portfolio standard purposes.
- Reserve subaccount. This subaccount is a repository for RECs withdrawn from GATS. Once in the reserve subaccount, the REC cannot be removed from that account.

The four largest bidders (identified here as Bidder #1, #2, #5 and #82) which represented 98.5% of the dollar volume of RECs purchased were selected for more detailed investigation²⁰. Additionally, every 8th bidder was selected to get a larger sampling of vendors. The invoices were compared to the contract to verify that the terms and conditions of the contracts were being followed. We then verified the cost of such purchases were included in inventory. The following exceptions were noted:

- We were able to verify the invoices of Bidder 1 (12-15-09, 1-26-10, 2-17-10 and 3-31-10) to the contracts although the invoices did not have quantity, price and attribute information.
- Bidder 20 had a contract for 50 SRECs yet only 32 were delivered during 2011.

FirstEnergy provided a one page procedure that was in place for accounting for RECs from 2009 through November 2011. A new and more comprehensive procedure became effective on December 31, 2011²¹. The original and revised policies were included in response to GS Set-1 INT-5.

The Operating Companies' REC inventory was reflected in account 158500 (a subaccount of FERC account 158.1 - Allowance Inventory) from 2009 through February 2010. In March 2010, the balance of the 158500 account was transferred to account 174010 (a subaccount of FERC account 174 -Miscellaneous Current and Accrued Assets). We agree with this change in accounting as FERC Account 158.1 is for emission allowances.

The purchase price of RECs is allocated among the Operating Companies based on the three-year average of each Company's SSO retail electric sales as a percentage of all Operating Companies' three-year average of SSO retail electric sales as shown below. These percentages are calculated by FirstEnergy's Rates Department.

²⁰ W/P DLS-1

²¹ Goldenberg supports the new procedure.

Year	OE	CEI	TE	Total
2006	20,273,176	16,936,804	8,977,204	
2007	21,354,818	17,403,753	9,228,709	
2008	21,040,189	17,157,556	9,006,924	
Average	20,889,394	17,166,038	9,070,946	47,126,378
% for 2009	44.33%	36.42%	19.25%	100.00%
% used ²²	46%	35%	19%	
2007	21,354,818	17,403,753	9,228,709	
2008	21,040,189	17,157,556	9,006,924	
2009	19,043,752	14,450,199	7,815,831	
Average	20,479,586	16,337,169	8,683,821	45,500,576
% for 2010	45.00%	35.91%	19.09%	100.00%
% used	45.00%	35.91%	19.09%	
2008	21,040,189	17,157,556	9,006,924	
2009	19,043,752	14,450,199	7,815,831	
2010	9,928,843	6,981,963	3,537,132	
Average	16,670,928	12,863,239	6,786,629	36,320,796
% for 2011	45.90%	35.42%	18.68%	100.00%
% used	45.90%	35.40%	18.70%	100.00%

A review of the allocation of costs of all invoices revealed the following exceptions from the allocation factors shown above.²³ These exceptions were brought to FirstEnergy's attention as we were unable to determine if there were subsequent corrections.

- The 2009 invoices used an incorrect allocation percentage. These were later corrected to the correct allocation percentage.
- In March 2010, Bidder 50's costs were allocated 44.70% to OE, 36.19% to CEI and 19.11% to TE.
- In May 2010, Bidder 6's costs were allocated 44.32% to OE, 36.43% to CEI and 19.25% to TE.
- In October 2010, Bidder 5's costs were allocated 23.12% to OE, 50.20% to CEI and 26.69% to TE.
- In March 2011, Bidder 1's costs were allocated 45.00% to OE, 35.91% to CEI and 19.09% to TE.
- In June 2011, Bidders 8, 5, 1 and 10's costs were allocated 45.00% to OE, 35.91% to CEI and 19.09% to TE.
- The remainder of the 2011 invoices did not provide an allocation of the purchase cost.

²²% used is the actual percentage allocation among the Operating Companies applied in that year.

²³ W/P DLS-7

When RECs are purchased, the cost of the RECs is charged to the general ledger inventory account. The company uses Aligne as the deal capture system to keep track of the cost, quantity and attributes of each REC in inventory. Each month, the quantity of RECs in the Aligne system is reconciled to GATS and the value of RECs in the Aligne system is reconciled to the consolidated total general ledger inventory account.

Record Retirement of RECs

In accordance with the original policy (2009 through November 2011), RECs were expensed at the time they were identified for compliance and retired, generally in April of the following year. The revised policy allows the Companies to record an estimated REC expense each month based on the actual or forecasted sales and the carrying value of RECs within the Aligne system. When RECs are actually retired and the final compliance cost for the year is determined, any necessary true-up is recorded. We agree with the revised policy.

The basis for selecting RECs to be retired is as follows:

- In 2009, RECs delivered earliest were retired first in GATS up to the individual required RECs category quantities needed for 2009 (FIFO). RECs in excess of those needed for 2009 compliance were maintained in FirstEnergy's GATS CEPS account for eligibility for future year(s) compliance.
- In 2010, some RECs delivered were retired using the FIFO methodology utilized in 2009; however, FirstEnergy changed the process to retire the older vintage RECs before retiring new vintage RECs. RECs in excess of those needed for 2010 compliance were maintained in FirstEnergy's GATS CEPS account for eligibility for future year(s) compliance.
- In 2011, RECs were retired in the following order:
 - Residential SREC program purchases
 - Long Term RFP RECs and SRECs; and
 - By price from lowest to highest

Having three different REC retirement policies in three years creates REC inventory valuation and annual compliance expense that is not comparable on a year to year basis. We recommend FirstEnergy continue its 2011 REC retirement policy but change the third tier to retire the highest costs RECs first to reduce future carrying costs, recognizing necessarily that any RECs expiring first, regardless of price, will need to be retired first. It should also be acknowledged that the Companies are currently required by the Commission to retire Residential REC Program and 10-year RFP RECs prior to RECs obtained from other sources. The revised retirement policy will provide for a consistent, logical and orderly means to value inventory and reflect the expense of compliance.

The cost of RECs retired are charged to subaccount 506819 - Residential Renewable Energy Credits, subaccount 506821 - Renewable Energy Credits and subaccount 506835 - Associated Company Renewable Energy Credits. All of these accounts are subaccounts of FERC Account 506 - Miscellaneous Steam Power Expenses (Major Only). When a REC is used to meet Ohio's alternative energy portfolio standard, the REC is transferred from the GATS CEPS subaccount to the GATS reserve subaccount. It is also retired in the Aligne system.

FirstEnergy inadvertently moved 4,138 RECs to its GATS reserve account in 2011 for calendar year 2010 requirements. As the Commission allowed FirstEnergy to use these RECs to satisfy future compliance requirements, there were no financial impacts to customers as a result of this issue. We recommend FirstEnergy review its procedures for retirement of RECs to ensure the right quantity of RECs are moved to the reserve account each year.

<u>Record expenses related to the purchase and retirement of RECs (i.e. Navigant RFP costs, broker fees and GATS costs).</u>

The Navigant RFP costs, broker fees and GATS costs are charged to subaccount 557014 (a subaccount of FERC account 557 - Other Expenses). This account is used for each Operating Company. In 2009 these costs were split equally between the Companies. In 2010, entries were made to change the allocation on a cumulative basis as if the allocation percentages were based on three-year average SSO sales levels.²⁴ We agree with this methodology for all administrative expenses.

Record the deferral of the difference between revenues and expenses.

In Case No. 08-935-EL-SSO, Item 9 of the stipulation states "A generation rider will be established to recover, on a quarterly basis, the prudently incurred cost of such credits pursuant to R.C. § 4928.64 including the cost of administering the RFP and carrying charges on any unrecovered balances including accumulated deferred interest."

The Operating Companies calculate monthly the amount to be deferred. This is done by calculating the Rider AER revenues booked less the costs of the program (retirement of RECs, Navigant RFP costs, broker fees and GATS costs). This balance is divided by 2 to reflect an average activity for the month. The interest rate is then applied to the sum of the average activity plus prior accumulated deferred principal and interest to determine the current month interest deferral. The monthly interest rate of 0.7066% was approved by the Commission in Case 08-935-EL-SSO. We verified the calculation of the Regulatory Asset and carrying costs booked by the Operating Companies for the audit period. Certain allocation errors were encountered in the early months but corrections were made to true-up the balance on each Operating Companies' books.

During 2009 through November 2011, retirement costs were recorded when the RECs were moved to the reserve account. This means that the Companies have incurred costs for the purchase of RECs during the year that are not reflected in the carrying cost calculation until such RECs are moved to the reserve account. If the intent of the carrying cost mechanism is to recover the interest cost of compliance expenditures, then

²⁴ W/P DLS-10

the carrying cost calculation should be revised to reflect the cost of RECs when purchased versus expensed.

This is less of an issue for December 2011 and thereafter as an estimated REC retirement cost is now being reflected monthly on the Operating Companies' financial statements.

The balance of each Operating Companies' Regulatory Asset is greater than it should be due in large part to the process FirstEnergy has used to calculate Rider AER. The effect of spreading the recovery of expenditures over longer periods, poor forecasting of nonshopping sales volumes, excluding administrative costs and carrying costs from the calculation and failure to reconcile the calculation on a regular basis have all contributed to the under recovery of allowed costs and therefore, an increased Regulatory Asset balance.

The difference between Rider AER revenues booked less the costs of the program (retirement of RECs, Navigant RFP costs, broker fees and GATS costs) is charged to subaccount 407710 (a subaccount of FERC account 407.3 - Other Regulatory Debits) with the offsetting entry reflected as a Regulatory Asset in subaccount 182387 (a subaccount of FERC account 182.3 - Other Regulatory Assets).

Record carrying costs.

Carrying costs are calculated monthly and recorded as a Regulatory Asset in subaccount 182387 and as a contra expense in subaccount 407715 (a subaccount of FERC account 407.3 - Other Regulatory Debits).

I. Accuracy of Projected Costs and Sales Volumes

FirstEnergy did not include an appropriate estimate of the REC expenditures to be recovered in its quarterly Rider AER calculations. Throughout the nine quarters of the audit period, a variety of methods was used to estimate the costs to be recovered. For year 2010, the REC estimate was calculated as 3% of the Company's estimated generation cost²⁵. The 2011 estimate was based on the Rider AER rate to recover remaining 2010 costs times the July through December 2011 projected sales volumes.²⁶ We recommend there be communication between the Regulated Commodity Sourcing group and the Rate Strategy group to provide an estimate of the REC expense expected to be recorded during the following quarter for recovery.

Sales volumes used in the Rider AER calculation on the other hand were projected. The volumes used were the non-shopping kWh projected to be delivered during the period for which the rider rate was being calculated. These projections were from FirstEnergy's Load Forecast which is prepared annually. The Load Forecast is based on past trends and other economic information. We reviewed these projected volumes compared to the actual sales volumes realized by quarter. The result of our analysis showed the Companies did not do a good job of estimating these volumes. In eight of the nine

²⁵ See GS Set-3 INT-15, Attachment 3.

²⁶ See GS Set-1 INT-13, Attachments 6 and 7, page 5 of 5.

quarters of the audit period, actual sales volumes were from 7% to 36% less than forecasted volumes. Only in the fourth quarter of 2010 were actual sales in excess of forecasted sales, by $10\%^{27}$. Many factors could contribute to these variances including weather, economic conditions and additional shopping by customers.

Since FirstEnergy is determining the Rider AER rate based on forecasted sales, if actual sales are consistently less than forecasted, the Operating Companies will not recover all of their allowable REC costs. We recommend the Load Forecast be reviewed regularly to provide more current information for calculation of this rider.

J. Allocations Among The Operating Companies

FirstEnergy acquires all of the RECs for compliance and incurs other expenses in connection with the RFPs and other administrative costs. These costs are allocated to the Operating Companies via several allocation methods. Since the primary purpose of Rider AER is to recover the costs associated with complying with the AEPS, we recommend a single allocation be calculated at the beginning of each year and applied to all costs incurred for AEPS compliance in that year. The allocation should be based on the non-shopping MWh baseline used to determine each Operating Company's AEPS compliance obligation. The allocation should be calculated as soon as the information is available after the beginning of the year and used for all cost allocated during that year. Adjustments and true-ups for prior years should be allocated using the percentages calculated for the appropriate year.

VII. STATUS RELATIVE TO 3% PROVISION OF O.R.C. 4928.64(C)(3) AND AS FURTHER DETAILED IN O.A.C. 4901:1-40-07

A. **RFP** Requirement

The RFP for the financial audit of the FirstEnergy Ohio Utilities Rider AER has specific requirements related to the statutory 3% cost provision. These include:

- Attachment 2, The Financial Audit Program Standards item #4 states: "A review of the Companies' status relative to the 3% provision contained within Ohio Revised Code, 4928.64(C)(3) and as further detailed in Ohio Administrative Code, 4901:1-40-07;"
- The Public Utilities Commission of Ohio ("Commission") Entry #(4) of its January 18, 2012 order in Case No. 11-5201-EL-RDR states: "Additionally, as this is a case of first impression, the Commission directs the Staff to work with the auditor to develop and incorporate into the audit report a range of alternative methodologies to determine the Companies' status relative to the 3% provision contained within Section 4928.64(C)(3), Revised Code, including an analysis of the impact of renewable generation on market prices and the electric distribution utilities' renewable procurement costs. Staff will not be bound, however, by the auditor's choice of methodology".

²⁷ W/P RMP-14.

B. The Ohio Revised Code

The Ohio Revised Code Section 4928.64(C)(3), states: "An electric distribution utility or an electric services company need not comply with a benchmark under division (B)(1) or (2) of this section to the extent that its reasonably expected cost of that compliance exceeds its reasonably expected cost of otherwise producing or acquiring the requisite electricity by three per cent or more. The cost of compliance shall be calculated as though any exemption from taxes and assessments had not been granted under section 5727.75 of the revised code."

C. The Ohio Administrative Code

The Ohio Administrative Code Rule 4901:1-40-07 Cost Cap, states:

(B) An electric utility or electric services company may file an application requesting a determination from the commission that its reasonably expected cost of compliance with a renewable energy resource benchmark, including a solar energy resource benchmark, would exceed its reasonably expected cost of generation to customers by three per cent or more. The process and timeframes for such a determination shall be set by entry of the commission, the legal director, deputy legal director, or attorney examiner.

(1) The burden of proof for substantiating such a claim shall remain with the electric utility or electric services company.

(2) An electric utility or electric services company shall pursue all reasonable compliance options prior to requesting such a determination from the commission.

(3) In the case that the commission makes such a determination, the electric utility or electric services company may not be required to fully comply with that specific benchmark.

- (C) Calculations involving a three per cent cost cap shall consist of comparing the total expected cost of generation to customers of an electric utility or electric services company, while satisfying an alternative energy portfolio standard requirement, to the total expected cost of generation to customers of the electric utility or electric services company without satisfying that alternative energy portfolio standard requirement.
- (D) Any costs included in a commission-approved unavoidable surcharge for construction or environmental expenditures of generation resources shall be excluded from consideration as a cost of compliance under the terms of the alternative energy portfolio standard and therefore, would not count against the applicable cost cap. Such costs should, however, be included in the calculation of the total expected cost of generation to customers described in paragraph (C) of this rule.

(E) If the commission makes a determination that a three per cent provision is triggered, the electric utility or electric services company shall comply with each benchmark up to the point that the three per cent increment would be reached for each benchmark.

D. Analysis

In developing alternative methodologies to determine the Companies' status relative to the 3% provision, the auditor assumes such methodologies must be compliant with the Ohio Revised Code Section 4928.64(C)(3) and the Ohio Administrative Code Rule 4901:1-40-07. However, several alternatives will be offered that are not required by the current law, but can assist the Commission in evaluating the 3% provision. The Ohio Revised Code and the Ohio Administrative Code provide criteria for the components of the calculation as follows:

- The baseline kWh shall be the average of the three previous calendar year sales. Therefore, it seems reasonable to use the same period to develop the generation cost. Using any other period can be problematic as this baseline can vary significantly from the current year sales due to customer switching.
- The renewable energy resource benchmarks are defined for future periods.
- The calculation is based on "reasonably expected costs".
- The cost of compliance shall be calculated as though any exemption from taxes and assessments had not been granted under section 5727.75 of the Ohio Revised Code. This section deals with the exemption on tangible personal property and real property of certain qualified energy projects. This auditor is not aware of any such qualified energy projects for the Operating Companies, thus it does not currently apply.

The Ohio Revised Code and the Ohio Administrative Code do not provide specific guidance for certain components of the calculation.

- The timeframe for the calculation is not defined.
- The term "reasonably expected cost of compliance" is not defined.
- The term "reasonably expected cost of otherwise producing or acquiring the requisite electricity" is not defined.

The timeframe for the calculation is not defined. Since the costs are expected costs, the timeframe must be a future period where the costs of compliance and acquiring electricity can be reasonably estimated for the calculation to be relevant.

The "reasonably expected cost of compliance" raises several issues.

- To forecast the reasonably expected cost of compliance requires assumptions to be made on future sales. Given the volatile state of customer switching, it is difficult to project kWh sales levels very far into the future.
- Another issue is defining the reasonable cost of compliance in the future. One may expect this to include the lowest cost of compliance, but this may not be

the case. Should RECs costing more than the compliance payments provided for in Ohio Administrative Rule 4901:1-40-08 be included in the 3% calculation?

- Another issue is defining the period of time costs can be reasonably estimated. The longer the time period usually reduces the accuracy of the projection. Long-term contracts for the purchase of RECs will typically lock in a price for RECs. Therefore, these costs are known. As long as there is a liquid market for the purchase and sale of RECs, prices can be reasonably estimated. Therefore, the contract purchases and the liquidity of the market will determine how long the cost of compliance can be reasonably projected.
- Should the cost of compliance include the costs related to prior periods? The Commission granted force majeure to the Operating Companies on a portion of the S-REC benchmark in 2009 and 2010. It added the shortfalls to the subsequent year(s). For purposes of performing the 3% calculation, these costs could be moved to the original compliance year for the 3% calculation to have a better matching of costs with the applicable compliance year.

The term "reasonably expected cost of otherwise producing or acquiring the requisite electricity" also raises several issues.

- The baseline kWh is developed using a three-year historical average and the projected cost of compliance is based on that sales volume. The future cost of electricity should also be based on the same sales volume to ensure there is not a mismatch of sales volumes that can cause a companies' 3% calculation to be misleading.
- The future price of electricity can be estimated depending on the timeframe for which it has procurement contracts. If an electric distribution utility wishes to estimate its electricity costs beyond that, there must be a liquid market for wholesale electricity. Therefore, the wholesale electric purchase contracts and the liquidity of the wholesale electric markets will determine how long the cost of electricity can be reasonably projected.
- The renewable energy generating resources within the PJM often displace higher cost traditional generating resources. Therefore, the Ohio electric utilities' customers benefit from these renewable electric generating resources through lower prices obtained from the wholesale energy market. It may be difficult to calculate this benefit precisely, but the Commission may want to consider adjusting the cost of electricity to reflect this benefit.

E. Alternative Methodologies

As stated previously, the Commission directed the Staff to work with the auditor to develop and incorporate into the audit report a range of alternative methodologies to determine the Companies' status relative to the 3% provision contained within Section 4928.64(C)(3). The formula for such calculation is relatively straight forward. Determine the reasonably expected cost of compliance with the renewable energy resource benchmark and divide it by the reasonably expected cost of generation to customers. There are only three components in this calculation; timeframe, the

reasonable expected cost of compliance with the renewable energy resource benchmark and the reasonably expected cost of generation to customers. Below is a discussion of these three components and alternative ways of calculating each.

Timeframe - The Ohio Revised Code and the Ohio Administrative Code imply the timeframe must be a forecasted period. The forecasted period should not be longer than the utility can reasonably estimate its cost of compliance and generation. The alternatives include:

• Historical calendar year. While this is not required to calculate the 3% provision, it may be useful for the Commission to request such a calculation. Under this alternative, the Companies will compare the cost of compliance for a calendar year to the cost of electricity for the volume of sales included in the three-year benchmark.

Using a historical calendar year can be helpful in evaluating the Operating Companies situation as recoveries under Rider AER began on October 1, 2009 and continued for an extended period. It may be useful to compare the final cost of compliance with the generation cost for 2009 benchmark. The final cost of compliance could be adjusted for S-RECs purchased in subsequent years as a result of the force majeure filing.

This timeframe will allow the Commission to see how the utility actually performed and give the Commission a basis to view the projected calculations. It may also be useful to the Commission in its mandated filings with the Ohio Legislature.

It may be useful to calculate the compliance cost using the Rider AER revenues as a proxy for the compliance cost as well as the actual compliance cost when finalized. Theoretically, these per cents should be close. If not, it could indicate issues the Commission may want to investigate.

- Balance of the current calendar year. This timeframe will allow the Commission and utility to view expected performance for the balance of the year. Since most, if not all of the RECs and generation will have already been obtained; the forecast should be reasonably accurate. It will allow time to adjust course if desirable.
- The next calendar year. This timeframe will allow the Commission and utility to view expected performance for the balance of the year. Since many, if not all of the RECs and generation may have already been obtained; the forecast should be reasonably accurate. It will allow time to adjust course if desirable. The Commission may wish to require each Ohio electric utility to make this calculation annually to ensure it understands the expected impact of the Alternative Energy Portfolio Standard.
- The balance of the SSO period. This timeframe will allow the Commission and utility to view expected performance for the balance of SSO period. Since some of the RECs and generation will have already been obtained, the forecast should be reasonable accurate. It will allow time to adjust course if desirable.

Compliance Cost Forecasted - The Ohio Revised Code and the Ohio Administrative Code imply the reasonably expected cost of compliance must be forecasted. The forecasted period should not be longer than the utility can reasonably estimate its cost of compliance and generation to be relevant. The alternatives include:

- Move compliance costs related to prior periods (i.e. resulting from force majeure filings) to the period covered by the force majeure filing. This will delay any historical calculations. As an alternative, the benchmark sales can be adjusted accordingly.
- The reasonably expected cost of compliance could include REC purchases and other reasonably incurred costs required to meet its benchmark, regardless of cost. An estimate would be used to purchase additional RECs to meet any shortfalls. The estimate could be based on the current market or other contracts.
- The reasonably expected cost of compliance could exclude REC purchases that cost more than the applicable renewable compliance payment per REC. An estimate would be used to purchase additional RECs to meet any shortfalls. The estimate could be based on the current market or other contracts. If there is still a REC shortfall, the utility may wish to prepare a force majeure filing before the Commission.

Cost of Generation Forecasted - The Ohio Revised Code and the Ohio Administrative Code imply the reasonably expected cost of generation must be forecasted. The forecasted period should not be longer than the utility can reasonably estimate its cost of compliance and generation. The alternatives include:

- The reasonably expected cost of generation would consist of the SSO generation price to customers (i.e. the auction results).
- The reasonably expected cost of generation would include the SSO generation price to customers adjusted for the benefits of the renewable generation. It is possible that renewable energy generating resources, to the extent that they displace higher cost traditional generating resources, can exert downward pressure on PJM wholesale market clearing prices, as these prices are based upon variable production costs rather than the full cost of capital investment. Therefore, Ohio electric utilities' customers benefit from these renewable electric generating resources indirectly through lower prices obtained through the wholesale energy market. An estimate of the approximate magnitude of this benefit can be achieved through use of nodal production cost simulation software or other modeling techniques, although it will always be difficult to calculate precisely. However, the Commission should be aware that the cost of electricity in wholesale markets is influenced by the existence of renewable resources with low marginal costs of production.

F. 3% Provision Calculation

To assist the Commission in evaluating alternative methodologies to calculate the 3% provision, we recommend the Commission require each Operating Company to develop 3% provision calculations for the calendar year 2013 and the balance of the SSO period.

FirstEnergy provided its 3% provision calculation which reflects the final cost of compliance for the calendar year and the current year generation cost applied to the three-year average SSO sales.²⁸ We recommend the Commission have each Operating Company prepare this calculation annually to assist the Commission with its evaluation of the 3% provision.

2011	FirstEnergy
Cost of Compliance	\$54,507,928
Cost of Generation, Excluding Compliance	\$2,217,042,022
% Cost of Compliance	2.46%
2010	
Cost of Compliance	\$60,749,428
Cost of Generation, Excluding Compliance	\$2,940,669,478
% Cost of Compliance	2.07%
2009	
Cost of Compliance	\$40,632,355
Cost of Generation, Excluding Compliance	\$3,158,985,955
% Cost of Compliance	1.29%

²⁸ See GS Set-2 INT-4.

VII. LIST OF RECOMMENDATIONS

- 1. The overall Rider AER rate calculated for each Operating Company should be used rather than allocating to rate schedule based on Loss Factors.
- 2. Rider AER calculations should recover the estimated costs to be incurred during the ensuing quarter over the non-shopping sales for that quarter.
- 3. Rider AER should include estimated carrying costs for recovery each quarter.
- 4. Rider AER should be reconciled each quarter and any over or under recovery included in the calculation in the second subsequent quarter.
- 5. Rider AER should be calculated every quarter.
- 6. Estimated administrative costs should be included in each quarterly calculation.
- 7. One-fourth of the under recovered balance as of December 31, 2011, should be included in the next four quarterly Rider AER calculations for recovery.
- 8. The Operating Company allocation should be clearly listed on all invoices to provide better support for future audits.
- 9. The purchase price of RECs should be allocated among the Operating Companies based on the three-year average of each Operating Companies' SSO retail electric sales as a percentage of all Companies' three-year average of SSO retail electric sales. Prior errors should be corrected.
- 10. We recommend the carrying cost calculation be revised to reflect the difference between actual revenues booked and actual cash expenditures.
- 11. FirstEnergy's procedures for retirement of RECs should be reviewed to ensure the right quantity of RECs is moved to the reserve account each year.
- 12. FirstEnergy's REC retirement policy should remain consistent to provide for a consistent, logical and orderly means to value inventory and reflect the expense of compliance.
- 13. We recommend improved communication between the Regulated Commodity Sourcing group and Rate Strategy group to provide an estimate of REC expense expected to be recorded in the following quarter.
- 14. Each Operating Company's Load Forecast should be reviewed regularly to provide more current estimated sales information for the calculation of Rider AER.
- 15. A single Operating Company allocation should be calculated at the beginning of each year and applied to all costs incurred that year for REC compliance.
- 16. FirstEnergy has had a different method for selecting RECs to be retired in each of the years 2009 2011. We recommend the 2011 policy be used in the future with except in the third tier, the highest cost RECs should be retired first to reduce future carrying costs.
- 17. To assist the Commission in evaluating alternative methodologies to calculate the 3% provision, we recommend the Commission require each Operating Company to develop 3% provision calculations for the calendar year 2013 and the balance of the SSO period. Additionally, we recommend the Commission consider requiring the Operating Companies to provide a historical 3% calculation to determine the Companies' status with the three percent provision.