FILE

BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc., to Adjust Rider DR-IM and Rider AU for 2012 Grid Modernization Costs.	)))))	Case No. 13-1141-GE-RDR

APPLICATION OF DUKE ENERGY OHIO, INC., TO ADJUST RIDER DR-IM AND RIDER AU FOR 2012 GRID MODERNIZATION COSTS

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1. Duke Energy Ohio, Inc., (Duke Energy Ohio or the Company) is an Ohio corporation engaged in the business of supplying electric transmission, distribution, and generation service in Adams, Brown, Butler, Clinton, Clermont, Hamilton, Montgomery, and Warren Counties in Southwestern Ohio to approximately 690,000 electric customers and 420,000 gas customers.

2. Duke Energy Ohio is a "public utility" as defined by Sections 4905.02 and 4905.03, Revised Code, and an "electric distribution company," "electric light company," "electric supplier," and "electric utility" as defined by Section 4928.01, Revised Code.

3. Duke Energy Ohio is also a natural gas company within the meaning of 4905.03(A)(6), Revised Code, and as such, is a public utility subject to the jurisdiction of the Public Utilities Commission of Ohio (Commission).

3. In this Application, the Company requests approval to adjust its advanced utility rider (Rider AU) and its distribution reliability - infrastructure modernization rider (Rider DR-IM) to allow for recovery of 2012 costs for the deployment of its grid modernization and related systems. Riders AU and DR-IM were originally submitted for approval in

Case Nos. 07-589-GA-AIR, *et al.*, (Gas Distribution Rate Case) and 08-920-EL-SSO, *et al.*, (Electric Security Plan (ESP) Case), respectively. Duke Energy Ohio also hereby requests such tariff approval and accounting authority as may be required for recovery.

4. The Company's Gas Distribution Rate Case, originally filed in July 2007, was resolved by a stipulation that provided, in part, for a process for filing deployment plans for the installation of an automated gas meter reading system. The automated gas meter reading system was designed to employ the grid modernization communications technology. The stipulation also contained a method for recovering costs associated with the plans, which was designated Rider AU.[1]

5. The Company's ESP case, originally filed in July 2008, was resolved by a stipulation that was approved by the Commission on December 17, 2008. The Commission's Opinion and Order accepting the stipulation included the authority for Duke Energy Ohio to commence deployment of grid modernization in its southwestern Ohio service area, and contained provisions for Duke Energy Ohio to create Rider DR-IM, which was initially set at zero, to recover costs for grid modernization deployment on a cost-per-meter basis, with applicable performance targets and caps on costs to customers. Duke Energy Ohio agreed to accrue post-in-service carrying charges at the most recent approved weighted cost of long-term debt and to defer depreciation and operating costs from the date expenditures are incurred until they are included for recovery in Rider DR-IM. The parties to the stipulation further agreed to regulatory asset accounting treatment for replaced meters, for which recovery was to be made through existing depreciation rates as amended from time to time. The stipulation also sets forth a requirement that Duke Energy Ohio file for annual second quarter approval of Rider DR-

[1] *In the Matter of the Application of Duke Energy Ohio for an Increase in Rates*, Case No. 07-589-GA-AIR, *et al.*, (Stipulation and Recommendation, February 28, 2008).

IM adjustments, subject to due process, including a hearing. The stipulation further provided that the Company would include a mid-deployment program summary and review with its 2010 grid modernization cost recovery application.[2]

6. In June 2009, in Case No. 09-543-GE-UNC, Duke Energy Ohio submitted its first annual second quarter application for approval of the costs it incurred during 2008 for its deployment of grid modernization. This case was also resolved through a stipulated settlement in November of 2009, and that stipulation was approved by the Commission in May 2010.[3]

7. In July 2010, in Case No. 10-867-GE-RDR, Duke Energy Ohio submitted its second annual second-quarter application for approval of the costs it incurred during 2009 for its deployment of grid modernization. Like the Company's Gas Distribution Rate Case, ESP Case, and Case No. 09-543-GE-UNC, Case No. 10-867-GE-RDR was also resolved by means of a stipulated settlement, which was approved by the Commission in March 2011.[4]

8. On October 27, 2010, in Case No.10-2326-GE-RDR, the Commission issued an entry that included a request for proposals to perform an audit that includes both an operational audit and an operational benefits assessment of Duke Energy Ohio's overall grid modernization implementation. The Commission subsequently selected MetaVu, Inc., (MetaVu) to conduct the audit. MetaVu's final audit report was filed with the Commission on June 30, 2011. That proceeding was resolved by a stipulation and recommendation that was submitted to the Commission for its approval on February 24,

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[2] *In the Matter of the Application of Duke Energy Ohio for Approval of an Electric Security Plan,* Case No. 08-920-EL-SSO, et al., (Stipulation and Recommendation, October 27, 2009).

[3] *In the Matter of the Application of Duke Energy Ohio to Adjust and Set its Gas and Electric Recovery Rate for SmartGrid Deployment Under Rider AU and Rider DR-IM,* Case No. 09-543-GE-UNC (Stipulation and Recommendation, November 19, 2009).

[4] *In the Matter of the Application of Duke Energy Ohio to Adjust Rider DR-IM and Rider AU for 2009 SmartGrid Costs,* Case No. 10-867-GE-RDR (Stipulation and Recommendation, February 14, 2011).

2012. The Stipulation and Recommendation was approved by the Commission on June 13, 2012.

9. In June 2012, in Case No. 12-1811-GE-RDR, Duke Energy Ohio submitted its fourth annual second-quarter application for approval of the costs it incurred during 2012 for its deployment of grid modernization. Like the Company's Gas Distribution Rate Case, ESP Case, and Case No. 09-543-GE-UNC, this case was also resolved by means of a stipulated settlement, which was approved by the Commission in March 2013.

10. In June 2012, in Case No. 12-1685-GA-AIR, Duke Energy Ohio filed for an increase to it's base gas rates. In this case the gas smart grid capital investment as of March 31, 2012 was included in base rates. There was a partial settlement reached in the case and filed on April 2, 2013. For this filing we assume that the AU investment as of March 31, 2012 will be included in our base rates and therefore, have not included any investment prior to this date in our application. This filing is contingent on the Commission's ultimate approval of the AU investment as of March 31, 2012 in base rates.

11. Duke Energy Ohio hereby files its Application to adjust Riders AU and DR-IM to recover 2012 costs for the deployment of its grid modernization and related systems. In support of its Application, Duke Energy Ohio submits the testimony of the following individuals: Donald L. Schneider, Jr., Timothy J. Duff, Peggy A. Laub and Mark V. Wimberly. Duke Energy Ohio witness Donald L. Schneider, Jr., will discuss the current status of the physical deployment of the meters and some of the benefits associated with the roll-out of the network. Duke Energy Ohio witness Timothy J. Duff will provide an updated overview of the work of the Company and of various stakeholders in the Grid Modernization Collaborative. Mr. Duff will further discuss the Company's various pilot tariff programs wherein the Company is gathering valuable information for application to

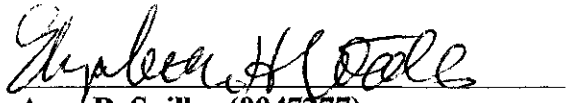
the roll-out of technology-enabled tariffs that customers can understand and employ in saving energy and money. Duke Energy Ohio witness Mark V. Wimberly will provide information about how the Company leverages grid modernization to the benefit of its customers. Duke Energy Ohio witness Peggy A. Laub will provide details regarding the Company's expenditures and revenue requirement for grid modernization deployment for 2012 with supporting schedules for the Company's request consistent with stipulations agreed to in prior cost recovery cases.

Conclusion

As discussed at length in the testimony filed in this case, the Company has worked to actively deploy its grid modernization and advanced technologies, to promote its programs, and to engage customers in order to make the programs successful. The Company continues to provide additional functionality and efficiency to its system to benefit its customers and to provide safer, more reliable, affordable energy.

Additionally, as supported by the testimony of the Duke Energy Ohio witnesses filed herewith, the Company respectfully requests that the Commission approve its Application, subject to the terms outlined herein.

Respectfully submitted,
Duke Energy Ohio, Inc.



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Duke Energy Ohio Exhibit _____

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THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc. to Adjust Rider DR-IM and Rider AU for 2012 SmartGrid Costs.	)))	Case No. 13-1141-GE-RDR

DIRECT TESTIMONY OF

DONALD L. SCHNEIDER, JR.

ON BEHALF OF

DUKE ENERGY OHIO, INC.

June 28, 2013

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Donald L. Schneider, Jr., and my business address is 400 South Tryon
3 Street, Charlotte, North Carolina, 28201.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC, an affiliate of Duke
6 Energy Ohio, Inc. (Duke Energy Ohio or Company), as General Manager,
7 SmartGrid Field Deployment.

8 **Q. WHAT IS YOUR PRIMARY RESPONSIBILITY AS GENERAL**
9 **MANAGER, SMARTGRID FIELD DEPLOYMENT?**

10 A. As General Manager, SmartGrid Field Deployment, I am currently responsible for
11 managing the project execution of all Advanced Metering Infrastructure (AMI)
12 projects for all Duke Energy Corp. (Duke Energy) jurisdictions. Prior to the
13 Duke/Progress merger, I was responsible for managing the project execution for
14 all Grid Modernization projects in the field, including both AMI and Distribution
15 Automation (DA) devices for all legacy Duke Energy Corp. (Duke Energy)
16 jurisdictions.

17 **Q. PLEASE BRIEFLY DESCRIBE YOUR PROFESSIONAL AND**
18 **EDUCATIONAL BACKGROUND.**

19 A. I received a Bachelor of Science Degree in Electrical Engineering from the
20 University of Evansville in 1986. Upon graduation, I was employed by Duke
21 Energy Indiana (then known as Public Service Indiana) as an electrical engineer.
22 Throughout my career, I have held various positions of increasing responsibility in

1 the areas of engineering and operations, including distribution planning,
2 distribution design, field operations, and capital budgets. Prior to my SmartGrid
3 position, I was General Manager, Midwest Premise Services, responsible for
4 managing all of Duke Energy's Midwest Premise Services and meter reading
5 departments. I was promoted to my current position in 2012.

6 **Q. ARE YOU A REGISTERED PROFESSIONAL ENGINEER?**

7 A. Yes, and have been since 1995.

8 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
9 **UTILITIES COMMISSION OF OHIO?**

10 A. Yes, I provided written testimony in several earlier Duke Energy Ohio SmartGrid
11 cases, including Case No. 09-543-GE-UNC, Case No. 10-867-GE-RDR, Case No.
12 10-2326-GE-RDR, and Case No. 12-1811-GE-RDR.

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
14 **PROCEEDING?**

15 A. I will discuss the status of Duke Energy Ohio's deployment of Grid Modernization
16 in its service territory, the progress made to date generally, and successes we have
17 experienced as a result of the deployment.

II. DUKE ENERGY OHIO'S CURRENT DEPLOYMENT

18 **Q. PLEASE DISCUSS THE STATUS OF DUKE ENERGY OHIO'S**
19 **DEPLOYMENT OF ITS GRID AUTOMATION.**

20 **A.** The field deployment portion of our Grid Automation program is nearing
21 completion. We are in our final year for both Advanced Metering Infrastructure
22 (AMI) and Distribution Automation (DA) field deployments, with some final wrap

1 up stretching into the first half of 2014. Through first quarter 2013, we have 65%
2 of our DA field devices deployed and in operation, and 75% of our AMI meters
3 installed and in operation.

4 **Q. PLEASE DISCUSS THE WORK DONE ON GRID MODERNIZATION**
5 **DURING 2012.**

6 A. The year 2012, was the fourth year for our full-scale DA deployment. In 2012,
7 we installed and/or upgraded over 244 system devices inside substations and over
8 2,621 system devices on distribution circuits, which met our 2012 plan. 2012
9 was the third year for our full-scale AMI deployment. The target for 2012 was to
10 install 184,090 electric meters, 107,030 gas meters/modules, and 48,000
11 communications nodes/devices. Our actual installation numbers for 2012 were
12 185,031 electric meters, 113,024 gas meters/modules, and 45,801 communications
13 nodes/devices. Our goal for communications nodes/devices was not reached due
14 to a larger number of times we released our contract crews on mutual assistance
15 storm restoration for major storms nationwide (Sandy, Northeast Winter Storm,
16 etc.). We were able to get back on schedule and still plan to meet our July 1, 2013
17 date for installation completion.

18 **Q. WHAT ARE THE AMI TOTALS TO DATE SINCE DEPLOYMENT**
19 **BEGAN IN 2008, AND WHAT ARE THE OVERALL AMI PROJECT**
20 **PLAN TOTALS UPON COMPLETION OF THE PROJECT?**

21 A. Through first quarter 2013, we have installed a total of 547,194 electric meters,
22 363,233 gas modules, and 127,232 communications nodes/devices and have
23 certified 510,689 of the electric meters installed and 340,365 of the gas modules

installed. Certified is a term used to identify when the meter has successfully completed the commissioning and verification process and the meter data is ready to be used for billing. These numbers put our total planned AMI deployment at approximately 75% complete, with deployment planned for completion in the middle of 2014. With the completion of our AMI deployment plan, we will have installed over 717,000 electric meters, 437,000 gas meters/modules, and 139,000 communications nodes/devices.

Q. WHAT ARE THE DA TOTALS TO DATE SINCE DEPLOYMENT BEGAN IN 2009, AND WHAT ARE THE OVERALL DA PROJECT PLAN TOTALS UPON COMPLETION OF THE PROJECT?

A. Through first quarter 2013, we have installed and/or automated with two-way communications capabilities, a total of 900 system devices inside substations and over 4,232 system devices on distribution circuits. These numbers put our total planned DA deployment at approximately 65% complete, with field deployment planned for completion year-end 2013. With the completion of our DA deployment, we will have installed and/or automated with two-way communications capabilities, a total of 1,165 system devices inside substations and over 6,700 system devices on distribution circuits.

Q. PLEASE EXPLAIN SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX AND HOW DUKE ENERGY OHIO IS PERFORMING AGAINST TARGETS.

A. System Average Interruption Frequency Index (SAIFI) is a utility industry standard for reporting the average number of sustained (greater than five minutes)

interruptions per customer per year. In Duke Energy Ohio's 2008 Electric Security Plan (ESP), Case No. 08-920-EL-SSO, the parties to the case reached a stipulation settling the case and the Public Utilities Commission of Ohio (Commission) adopted the stipulation in its Opinion and Order. In that stipulation, Duke Energy Ohio committed to achieving specified SAIFI targets for each year of the deployment. The numbers agreed to are as follows:

Year	SAIFI
2009	**1.50**
2010	**1.44**
2011	**1.38**
2012	**1.31**
2013	**1.24**
2014	**1.17**
2015	**1.10**

Duke Energy Ohio is pleased to note that it has met or exceeded its SAIFI target for 2009, 2010, 2011, and 2012. The 2009 SAIFI result was 1.30, 2010 was 1.10, 2011 was 1.38, and 2012 was 1.08. The Duke Energy Ohio service territory experienced an unusually large number of storms in 2011, with seventeen storm events declared in 2011, compared to ten in 2009, twelve in 2010 and ten in 2012. Through April 30, 2013, our current twelve month rolling SAIFI is at 1.12.

Q. CAN YOU PROVIDE AN UPDATE ON THE INTEGRATED VOLT/VAR CONTROL (IVVC) EFFORT IN 2012 AND FUTURE PLANS?

A. Duke Energy Ohio continues to fine-tune the IVVC function within the Distribution Management System (DMS) as we turn this functionality on circuit-by-circuit. 2012 efforts were focused on the development of the IVVC algorithm with the DMS vendor and piloting the results on a few circuits. This work carried

on into 2013, as planned and we continue to turn on this functionality on a circuit-by-circuit basis. As discussed with the Staff of the Public Utilities Commission of Ohio (Staff) and other parties, on February 6, 2013, we continue to work towards a goal of having 150 circuits commissioned by year-end 2013 and the remaining circuits (391) commissioned by year-end 2014. With the DMS being a newly developed system, we do accept that there are inherent risks, and as a result have developed a mitigation plan that would have all circuits commissioned by year-end 2015, which was also shared with the Staff on February 6, 2013.

Q. THE FEBRUARY 6, 2013 DISCUSSION WITH STAFF AND OTHER PARTIES ALSO COVERED PROPOSED DISTRIBUTION SYSTEM EFFICIENCY METRICS. CAN YOU PROVIDE AN UPDATE ON THESE METRICS?

A. All parties in attendance at the February 6, 2013 meeting referenced in this question agreed to Duke Energy Ohio filing two separate reports annually at the time of our Smart Grid Cost Recovery filing. The first report titled Duke Energy Ohio Distribution System Loading Report - 2012, Attachment DLS-1, is a report of the 2012 distribution system load details by circuit. The second report titled Duke Energy Ohio Distribution System Efficiency Metrics – IVVC, Attatchment DLS-2, is a report of Duke Energy Ohio's megawatthour (MWH) reduction under Integrated Volt/Var Control (IVVC) based on the number of circuits under IVVC control for 2012. As discussed above, the IVVC functionality was in a test mode starting in 2012 and thus no real MWH reduction can be shown for 2012. The

1 report reflects the MHW reduction that would have been seen for 2012 if the
2 circuits in testing were operated under IVVC control for the entire year.

3 **Q. PLEASE DISCUSS THE TYPES OF CUSTOMER CONCERNS DUKE**
4 **ENERGY OHIO HAS DEALT WITH DURING THE AMI DEPLOYMENT.**

5 A. Overall customer concerns related to our AMI smart meter deployment have been
6 minimal – less than three-tenths of one percent of total installations – and are
7 generally focused in one of six areas: 1) communications, 2) installation, 3) service
8 disconnection for non access, 4) bill accuracy, 5) smart meter installation refusal,
9 and 6) other/miscellaneous. In most cases, we use existing processes to manage
10 complaints. For issue-based questions and complaints (e.g., smart meter
11 installation refusal), we connect the customer with an internal subject matter expert
12 to discuss concerns in detail. In some situations, we have been able to use our
13 Envision Center to explain our SmartGrid program, and that has proven helpful.
14 The smart meter installation refusals typically relate to concerns around data
15 security, data privacy and health associated with radio frequency (RF). Out of the
16 nearly 550,000 electric meters we have installed through first quarter of 2013, we
17 have received only 300 smart meter installation refusals, or less than one-tenth of
18 one percent of total installations. Out of the 300 customers refusing a smart meter
19 installation, we have only disconnected service for three. All three of these
20 customers immediately called for service to be reconnected with the smart meter
21 remaining. While we have addressed and resolved thirteen Commission
22 complaints/inquiries associated with smart meter installation refusal.

1 Duke Energy Ohio is committed to being as responsive as possible in
2 getting the meters installed with the least amount of disruption to the customer.
3 We continue to review customer complaints and feedback and adjust our
4 communications and processes, as needed.

5 **Q. PLEASE DISCUSS SOME OF THE SUCCESS STORIES EXPEREINCED**
6 **TO DATE FROM THE SMART GRID DEPLOYMENT.**

7 A. It is evident that customers are seeing increased reliability as measured by the
8 reductions in service interruptions as indicated in the SAIFI values noted above.
9 We have been tracking the success of our self-healing teams and have experienced
10 a total of twenty-four operations of these devices to date, which have resulted in
11 saving nearly 36,000 customers from a sustained outage, totaling over three
12 million customer outage minutes saved. The increased sectionalization and remote
13 control capabilities of substation breakers has also been successful in contributing
14 to the increased realibility, however, tracking these events is not easily
15 accomplished. From our AMI deployment, we are seeing great results from our
16 capability to remotely capture off-cycle reads and remotely disconnect and
17 reconnect service. Since May of 2010, when remote operation capability was
18 implemented, we have saved nearly 550,000 truck rolls, with nearly 300,000 of
19 these occurring in 2012. We are currently offering daily energy usage data via our
20 Duke Energy Ohio portal to over 529,000 customers, or roughly 74% of our
21 customer base.

III. CONCLUSION

1 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

2 A. Yes.

Duke Energy Ohio Distribution System Loading Report - 2012

362	Aicholtz	41	12.47	9,865	85	9,950	99.93	0.85%
362	Aicholtz	42	12.47	8,936	246	9,182	99.98	2.68%
211	ALLEN	41	12.47	5606	66	5671	96	1.16
211	ALLEN	42	12.47	9254	113	9367	100	1.21
141	Amelia	41	12.47	9,574	113	9,687	100.00	1.17%
141	Amelia	42	12.47	8,543	111	8,654	97.38	1.28%
11	ASHLAND	41	12.47	6807	193	7000	100.00	2.76%
11	ASHLAND	42	12.47	8815	244	9059	99.00	2.69%
11	ASHLAND	43	12.47	6457	43	6500	97.00	0.66%
11	ASHLAND	44	12.47	6221	64	6285	100.00	1.02%
11	ASHLAND	45	12.47	11458	142	11600	99.00	1.22%
11	ASHLAND	46	12.47	9470	281	9755	97.00	2.88%
11	ASHLAND	48	12.47	2377	22	2400	100.00	0.92%
11	ASHLAND	49	12.47	5905	51	5957	94.00	0.86%
272	Banning	41	12.47	8095	40	8135	88	0.49
272	Banning	42	12.47	8895	117	9013	99	1.30
156	Barnesburg	41	12.47	8946	172	9119	97	1.89
139	Batavia	41	12.47	7,250	130	7,380	100.00	1.76%
139	Batavia	42	12.47	4,536	30	4,566	99.95	0.66%
87	BECKETT	41	12.47	6059	68	6127	100	1.11
87	BECKETT	42	12.47	11242	278	11520	100	2.41
318	Berkshire	41	12.47	6,897	59	6,956	97.64	0.85%
318	Berkshire	42	12.47	9,253	103	9,356	99.59	1.10%
40	BETHANY	41	12.47	7738	109	7847	100	1.39
40	BETHANY	42	12.47	6828	266	7094	99	3.75
40	BETHANY	43	12.47	8126	485	8611	95	5.63
40	BETHANY	44	12.47	9721	340	10061	100	3.38
40	BETHANY	45	12.47	4398	86	4484	99	1.92
40	BETHANY	46	12.47	6541	78	6619	92	1.18
40	BETHANY	47	12.47	9367	404	9770	100	4.13
40	BETHANY	48	12.47	8189	232	8421	100	2.75
310	Blairville	41	12.47	7,355	81	7,436	98.85	1.09%
105	Branch Hill	41	12.47	6,789	87	6,876	98.44	1.27%
105	Branch Hill	42	12.47	5,921	48	5,969	98.37	0.80%
21	BRIGHTON	41	12.47	5104	52	5157	95.00	1.01%
21	BRIGHTON	42	12.47	2527	10	2537	87.00	0.39%
21	BRIGHTON	43	12.47	5727	202	5929	98.00	3.41%
21	BRIGHTON	44	12.47	4727	41	4768	96.00	0.86%
21	BRIGHTON	45	12.47	4852	15	4867	87.00	0.31%
21	BRIGHTON	46	12.47	4481	59	4540	88.00	1.30%

21	BRIGHTON	47	12.47	6007	17	6024	87.00	0.28%
21	BRIGHTON	48	12.47	3446	9	3455	87.00	0.26%
21	BRIGHTON	49	12.47	7234	76	7310	93.00	1.04%
186	Brower	51	34.5	3213	3	3216	88	0.08
58	Brown	41	12.47	6,007	320	6,327	97.72	5.06%
58	Brown	51	34.50	10,399	229	10,628	88.75	2.15%
58	Brown	52	34.50	10,785	380	11,165	99.49	3.40%
172	Buckwheat	41	12.47	6,586	49	6,635	99.50	0.74%
37	CARLISLE	41	12.47	8512	283	8795	98	3.21
29	Cedarville	51	34.50	16,375	334	16,709	99.88	2.00%
29	Cedarville	52	34.50	16,560	408	16,968	99.98	2.40%
29	Cedarville	53	34.50	6,461	91	6,552	99.53	1.39%
29	Cedarville	54	34.50	16,482	252	16,734	99.95	1.51%
29	Cedarville	55	34.50	7,368	98	7,466	78.28	1.31%
39	CENTRAL	41	12.47	5631	63	5694	95.00	1.11%
39	CENTRAL	42	12.47	4205	396	4602	99.00	8.60%
39	CENTRAL	43	12.47	4683	65	4748	96.00	1.37%
39	CENTRAL	44	12.47	8832	142	8975	99.00	1.58%
39	CENTRAL	45	12.47	6643	72	6715	88.00	1.07%
39	CENTRAL	46	12.47	1336	7	1343	88.00	0.52%
13	CHARLES	41	12.47	6527	58	6585	87.00	0.88%
13	CHARLES	42	12.47	6406	49	6456	87.00	0.76%
13	CHARLES	43	12.47	8743	106	8851	92.00	1.20%
13	CHARLES	44	12.47	6159	38	6198	88.00	0.61%
13	CHARLES	45	12.47	2131	30	2196	88.00	1.37%
13	CHARLES	46	12.47	10931	146	11077	97.00	1.32%
91	CHESTER	41	12.47	9077	60	9137	98.00	0.66%
91	CHESTER	42	12.47	8075	98	8173	100.00	1.20%
91	CHESTER	43	12.47	7822	62	7884	99.00	0.79%
91	CHESTER	44	12.47	3596	9	3605	96.00	0.25%
178	Clertoma	41	12.47	2,189	4	2,193	99.00	0.18%
23	Clinton County	51	34.50	13,161	114	13,275	96.68	0.86%
23	Clinton County	52	34.50	8,659	260	8,919	98.36	2.92%
23	Clinton County	53	34.50	6,574	147	6,721	97.18	2.19%
44	COOPER	41	12.47	8303	184	8487	91.00	2.17%
44	COOPER	42	12.47	5968	42	6010	94.00	0.70%
204	CORNELL	41	12.47	7108	77	7185	93.00	1.07%
204	CORNELL	42	12.47	10060	156	10218	100.00	1.53%
204	CORNELL	43	12.47	8424	119	8543	96.00	1.39%
204	CORNELL	44	12.47	6840	40	6883	88.00	0.58%
204	CORNELL	51	34.5	8802	36	8838	87.00	0.41%
204	CORNELL	52	34.5	5625	11	5636	87.00	0.20%
64	CUMMINSVILLE	41	12.47	4500	71	4571	88.00	1.55%
64	CUMMINSVILLE	42	12.47	9683	256	9940	99.00	2.58%
64	CUMMINSVILLE	43	12.47	7966	176	8142	97.00	2.16%
64	CUMMINSVILLE	44	12.47	6197	49	6246	94.00	0.78%
64	CUMMINSVILLE	45	12.47	3917	88	4005	100.00	2.20%

64	CUMMINSVILLE	46	12.47	4309	29	4338	88.00	0.67%
64	CUMMINSVILLE	47	12.47	4820	61	4881	88.00	1.25%
26	DEER PARK	41	12.47	12533	435	12968	100.00	3.35%
26	DEER PARK	42	12.47	10211	174	10385	99.00	1.68%
26	DEER PARK	43	12.47	8669	171	8840	97.00	1.93%
26	DEER PARK	44	12.47	10055	397	10452	97.00	3.80%
26	DEER PARK	45	12.47	12572	195	12767	100.00	1.53%
26	DEER PARK	46	12.47	7808	148	7956	96.00	1.86%
26	DEER PARK	47	12.47	8544	131	8675	96.00	1.51%
26	DEER PARK	48	12.47	9095	136	9236	100.00	1.47%
267	Delhi	41	12.47	8822	53	8875	91	0.59
267	Delhi	42	12.47	10748	139	10887	98	1.28
267	Delhi	43	12.47	7206	62	7268	92	0.86
267	Delhi	44	12.47	6076	34	6110	94	0.55
133	DIMMICK	42	12.47	7628	166	9033	100	1.84
133	DIMMICK	41	12.47	4436	36	3978	97	0.91
133	DIMMICK	43	12.47	7858	84	8108	96	1.04
133	DIMMICK	44	12.47	9820	268	8849	95	3.03
84	Eastwood	51	34.50	23,368	315	23,683	99.50	1.33%
84	Eastwood	52	34.50	8,928	64	8,992	95.74	0.71%
68	Ebenezer	41	35	9405	95	9500	99	1.00
68	Ebenezer	42	35	7855	29	7803	100	0.37
68	Ebenezer	43	35	9796	154	9950	98	1.55
68	Ebenezer	44	35	11677	288	11965	100	2.41
68	Ebenezer	58	35	24843	157	25000	99	0.63
68	Ebenezer	6859	35	27484	257	27741	99	0.93
6	Elmwood	41	12.47	11262	106	11368	99	0.93
6	Elmwood	42	12.47	6978	166	7144	100	2.32
6	Elmwood	43	12.47	2641	9	2650	99	0.35
6	Elmwood	44	12.47	2723	14	2737	88	0.52
6	Elmwood	45	12.47	11567	222	11789	100	1.88
6	Elmwood	46	12.47	6261	79	6340	86	1.25
6	Elmwood	47	12.47	4883	97	4980	94	1.95
6	Elmwood	48	12.47	7611	70	7681	97	0.91
46	EVENDALE	51	34.5	8918	51	8969	95.00	0.57%
46	EVENDALE	55	34.5	13162	126	13288	99.00	0.95%
46	EVENDALE	58	34.5	5700	27	5727	95.00	0.47%
46	EVENDALE	4652	34.5	2460	5	2465	92.00	0.20%
283	Fairfax	41	12.47	8,061	65	8,126	98.36	0.80%
283	Fairfax	42	12.47	8,800	182	8,982	98.83	2.03%
283	Fairfax	43	12.47	8,190	102	8,292	100.00	1.23%
283	Fairfax	44	12.47	8,682	78	8,760	99.92	0.89%
57	FAIRFIELD	41	12.47	6372	167	6539	99	2.55
57	FAIRFIELD	42	12.47	8180	131	8311	99	1.58
57	FAIRFIELD	43	12.47	6167	38	6205	99	0.62
57	FAIRFIELD	44	12.47	9481	175	9453	99	1.86
57	FAIRFIELD	45	12.47	3370	14	3338	97	0.42

57	FAIRFIELD	46	12.47	4873	49	4922	99	1
57	FAIRFIELD	51	34.5	1199	2	1201	90	0.15
57	FAIRFIELD	56	34.5	5729	34	5763	100	0.58
57	FAIRFIELD	58	34.5	22115	427	22542	99	1.89
265	Feldman	41	12.47	7,896	182	8,078	99.99	2.25%
265	Feldman	42	12.47	6,469	112	6,581	96.81	1.70%
265	Feldman	43	12.47	7,505	181	7,686	97.15	2.35%
265	Feldman	44	12.47	8,751	155	8,906	100.00	1.74%
265	Feldman	45	12.47	6,260	103	6,363	99.39	1.62%
265	Feldman	46	12.47	7,425	126	7,551	99.94	1.67%
359	Felicity	41	12.47	5,722	160	5,882	98.79	2.72%
285	FERGUSON	41	12.47	8659	104	8763	100.00	1.19%
285	FERGUSON	42	12.47	11518	232	11750	96.00	1.97%
285	FERGUSON	43	12.47	7084	112	7196	99.00	1.56%
285	FERGUSON	44	12.47	9242	77	9320	100.00	0.83%
47	Finneytown	41	12.47	6201	82	6283	100	1.31
47	Finneytown	42	12.47	11233	444	11677	99	3.80
47	Finneytown	43	12.47	9334	344	9677	100	3.55
47	Finneytown	44	12.47	10503	293	10796	99	2.72
47	Finneytown	45	12.47	8682	103	8785	99	1.18
47	Finneytown	46	12.47	10404	131	10535	100	1.25
34	FRANKLIN	42	12.47	7049	68	7117	100	0.96
34	FRANKLIN	43	12.47	3611	41	3652	93	1.12
34	FRANKLIN	44	12.47	6612	74	6686	94	1.11
34	FRANKLIN	41	12.47	8875	237	9112	100	2.61
296	GASTON	41	12.47	3496	54	3550	100	1.53
353	GILMORE	41	12.47	6914	41	6955	95	0.58
353	GILMORE	42	12.47	9809	61	9871	95	0.62
192	Glen Este	41	12.47	8,327	62	8,389	98.70	0.74%
357	GLENDALE	41	12.47	3557	7	3564	88.00	0.20%
357	GLENDALE	42	12.47	1666	1	1668	80.00	0.06%
357	GLENDALE	43	12.47	5845	29	5874	94.00	0.49%
357	GLENDALE	44	12.47	5402	38	5440	95.00	0.70%
72	Glenview	41	12.47	9412	139	9551	98	1.46
72	Glenview	42	12.47	9122	313	9436	98	3.32
72	Glenview	43	12.47	9311	150	9461	100	1.59
72	Glenview	44	12.47	6125	54	6179	99	0.87
72	Glenview	55	34.5	16030	211	16241	86	1.30
72	Glenview	56	34.5	16031	163	16194	86	1.01
130	GOLF MANOR	41	12.47	9819	220	10042	100.00	2.19%
130	GOLF MANOR	42	12.47	8529	86	8615	99.00	1.00%
166	HALL	41	12.47	8114	129	8243	90	1.56
166	HALL	42	12.47	9646	94	9740	99	0.96
166	HALL	43	12.47	7763	136	7903	100	1.72
166	HALL	44	12.47	4684	94	4778	87	1.97
71	Hamlet	41	12.47	7,021	105	7,126	99.21	1.47%
208	HENSLEY	41	12.47	11628	507	12135	95	4.18

88	Hillcrest	51	34.50	6,674	40	6,714	90.26	0.60%
88	Hillcrest	52	34.50	4,700	48	4,748	90.73	1.01%
146	Hillside	41	12.47	7380	183	7563	99	2.41
180	HOPEWELL	41	12.47	6304	47	6351	100.00	0.74%
180	HOPEWELL	42	12.47	9770	54	9825	92.00	0.55%
237	HUNTER	41	12.47	6426	84	6511	98	1.29
237	HUNTER	42	12.47	297	0	298	85	0.08
237	HUNTER	43	12.47	7058	63	7121	99	0.89
48	IVORYDALE	41	12.47	5308	102	5410	99.00	1.89%
48	IVORYDALE	42	12.47	4457	36	4493	87.00	0.80%
48	IVORYDALE	43	12.47	4320	19	4339	87.00	0.44%
48	IVORYDALE	44	12.47	5992	51	6043	88.00	0.84%
65	JACKSON	41	12.47	7929	171	8100	99	2.11
65	JACKSON	42	12.47	3511	16	3527	99	0.45
65	JACKSON	43	12.47	7086	61	7147	97	0.85
65	JACKSON	44	12.47	5111	47	5158	97	0.91
99	KEMPER	41	12.47	4372	34	4406	99.00	0.77%
99	KEMPER	42	12.47	5425	72	5497	99.00	1.31%
99	KEMPER	43	12.47	6518	48	6566	98.00	0.73%
99	KEMPER	44	12.47	11204	153	11357	100.00	1.35%
99	KEMPER	45	12.47	7784	137	7922	97.00	1.73%
99	KEMPER	46	12.47	9373	180	9553	99.00	1.88%
85	KINGS MILLS	41	12.47	7993	347	8340	100	4.16
85	KINGS MILLS	52	34.5	10282	167	10449	89	1.6
85	KINGS MILLS	53	34.5	8861	204	9065	98	2.25
85	KINGS MILLS	54	34.5	1118	38	1156	94	3.3
61	Kleeman	41	12.47	12528	128	12657	99	1.01
61	Kleeman	42	12.47	10715	287	11002	99	2.61
61	Kleeman	43	12.47	10589	102	10691	99	0.95
61	Kleeman	44	12.47	12780	202	12982	100	1.56
61	Kleeman	45	12.47	9482	146	9628	99	1.51
61	Kleeman	46	12.47	10844	197	11041	100	1.79
159	Lake Waynoka	41	12.47	3,679	64	3,743	96.20	1.71%
41	LATERAL	41	12.47	5690	36	5726	100.00	0.63%
41	LATERAL	42	12.47	6953	110	7063	98.00	1.56%
41	LATERAL	43	12.47	9052	132	9188	100.00	1.44%
41	LATERAL	44	12.47	3336	6	3342	99.00	0.18%
41	LATERAL	45	12.47	4170	16	4186	88.00	0.38%
41	LATERAL	46	12.47	6692	63	6755	99.00	0.93%
41	LATERAL	48	12.47	664	0	664	67.00	0.00%
108	LESOURDSVILLE	41	12.47	7099	89	7188	98	1.24
108	LESOURDSVILLE	42	12.47	9370	192	9562	93	2.01
108	LESOURDSVILLE	43	12.47	4774	114	4889	92	2.34
31	LIBERTY	41	12.47	6570	169	6739	99	2.51
31	LIBERTY	42	12.47	2531	13	2544	84	0.52
31	LIBERTY	43	12.47	10636	438	11691	98	3.75
95	Lincoln	41	12.47	8045	135	8180	99	1.65

95	Lincoln	42	12.47	9828	577	10404	98	5.54
95	Lincoln	43	12.47	7796	275	8071	96	3.41
95	Lincoln	44	12.47	7959	101	8060	97	1.25
95	Lincoln	45	12.47	5263	61	5324	100	1.15
95	Lincoln	46	12.47	2376	13	2389	87	0.55
95	Lincoln	47	12.47	3725	69	3794	100	1.83
95	Lincoln	48	12.47	3730	64	3794	100	1.68
27	Linwood	41	12.47	6,511	78	6,589	99.46	1.18%
27	Linwood	42	12.47	10,671	145	10,816	99.68	1.34%
27	Linwood	43	12.47	7,446	130	7,576	97.52	1.72%
27	Linwood	44	12.47	6,367	141	6,508	97.68	2.17%
232	LOCUST	41	12.47	9211	95	9306	100	1.02
232	LOCUST	42	12.47	7510	48	7557	98	0.63
230	Mack	41	12.47	10548	98	10645	100	0.92
230	Mack	42	12.47	10491	82	10574	98	0.78
257	Madeira	41	12.47	9,244	276	9,520	99.81	2.90%
257	Madeira	42	12.47	9,378	152	9,530	95.48	1.59%
169	MAINEVILLE	41	12.47	8700	241	8941	99	2.69
169	MAINEVILLE	42	12.47	5131	81	5212	98	1.55
169	MAINEVILLE	43	12.47	6018	58	6076	100	0.95
83	MANCHESTER	41	12.47	5110	45	5155	100	0.87
83	MANCHESTER	42	12.47	5654	97	5752	98	1.69
83	MANCHESTER	43	12.47	1597	7	1604	98	0.41
83	MANCHESTER	44	12.47	5638	234	5872	86	3.98
83	MANCHESTER	45	12.47	5844	70	5914	99	1.19
83	MANCHESTER	46	12.47	5474	252	5727	99	4.41
36	Mapleknoll	41	12.47	5568	36	5604	95	0.64
36	Mapleknoll	42	12.47	5222	20	5242	88	0.39
36	Mapleknoll	43	12.47	2622	5	2627	87	0.17
36	Mapleknoll	44	12.47	14349	2421	16770	99	14.44
36	Mapleknoll	45	12.47	10577	252	10830	97	2.33
51	Markley	41	12.47	7,831	89	7,920	98.12	1.12%
51	Markley	42	12.47	6,756	186	6,942	99.31	2.68%
51	Markley	43	12.47	7,043	57	7,100	99.85	0.80%
51	Markley	44	12.47	6,885	61	6,946	99.49	0.88%
51	Markley	45	12.47	7,673	98	7,771	99.73	1.26%
51	Markley	46	12.47	10,709	105	10,814	99.54	0.97%
155	MASON	41	12.47	7177	64	7241	100	0.89
206	McMann	41	12.47	6,308	40	6,348	98.50	0.63%
123	Miamitown	41	12.47	8844	177	9021	99	1.97
140	MICA	41	12.47	6838	164	7003	98.00	2.34%
33	MIDDLETOWN	41	12.47	700	5	705	89	0.75
33	MIDDLETOWN	42	12.47	3661	23	3684	89	0.62
33	MIDDLETOWN	43	12.47	7134	207	7341	95	2.82
96	Midway	51	35	23177	310	23486	96	1.32
96	Midway	9653	35	16348	483	16831	87	2.87
96	Midway	9654	35	9556	49	9605	97	0.51

24	MILLIKIN	41	12.47	5955	112	6067	98	1.85
24	MILLIKIN	42	12.47	10907	236	11143	99	2.12
24	MILLIKIN	43	12.47	10100	342	10442	100	3.27
24	MILLIKIN	44	12.47	5399	61	5460	99	1.12
103	MILLVILLE	41	12.47	7557	160	7718	96	2.08
103	MILLVILLE	42	12.47	6198	224	6422	100	3.49
12	MITCHELL	41	12.47	9085	329	9414	95.00	3.49%
12	MITCHELL	43	12.47	5694	95	5800	94.00	1.64%
12	MITCHELL	44	12.47	2055	11	2069	100.00	0.53%
583	M-M DOW	43	12.47	7442	49	7491	95.00	0.65%
292	Monfort Heights	41	12.47	9579	108	9687	100	1.11
158	MONROE	41	12.47	11346	136	11482	95	1.18
158	MONROE	42	12.47	7722	242	7964	95	3.04
158	MONROE	43	12.47	11057	160	11218	95	1.43
137	MONTGOMERY	41	12.47	7790	59	7849	100	0.75
137	MONTGOMERY	42	12.47	11979	180	12159	100	1.48
137	MONTGOMERY	43	12.47	8859	122	8981	99	1.35
137	MONTGOMERY	44	12.47	6732	56	6788	90	0.83
137	MONTGOMERY	45	12.47	2910	2.04	9042	99	184
137	MONTGOMERY	46	12.47	7723	74	7797	99	0.96
49	Morgan	51	34.5	13403	57	13460	92	0.42
49	Morgan	52	34.5	12321	65	12386	99	0.52
49	Morgan	53	34.5	9523	60	9583	88	0.63
49	Morgan	54	34.5	23702	146	23848	100	0.61
301	Moscow	41	12.47	2,645	104	2,749	99.92	3.78%
301	Moscow	42	12.47	1,624	31	1,655	99.26	1.87%
79	Mt Healthy	41	12.47	8164	226	8390	100	2.69
79	Mt Healthy	42	12.47	8587	375	8962	100	4.18
79	Mt Healthy	43	12.47	7855	88	7943	97	1.11
79	Mt Healthy	44	12.47	11788	313	12102	100	2.59
195	Mt Repose	41	12.47	7,203	44	7,247	99.38	0.61%
195	Mt Repose	42	12.47	6,866	99	6,965	99.99	1.42%
206	Mt Washington	41	12.47	6,871	60	6,931	99.28	0.87%
25	MULHAUSER	41	12.47	11413	161	11574	99	1.39
25	MULHAUSER	42	12.47	6428	38	6466	100	0.59
25	MULHAUSER	43	12.47	9065	192	9257	100	2.07
25	MULHAUSER	44	12.47	9039	186	9224	99	2.01
25	MULHAUSER	45	12.47	2798	6	2804	80	0.22
25	MULHAUSER	46	12.47	3591	22	3613	81	0.62
181	Neumann	41	12.47	9818	112	9930	98	1.13
181	Neumann	42	12.47	11443	96	11539	99	0.83
119	New Burlington	41	12.47	8210	75	8285	100	0.91
119	New Burlington	42	12.47	10794	157	10951	99	1.43
129	New Hope	31	12.47	1,672	67	1,739	99.05	3.85%
143	New Richmond	41	12.47	7,550	195	7,745	97.66	2.52%
92	Newtown	41	12.47	9,579	165	9,744	99.99	1.69%
92	Newtown	42	12.47	6,874	200	7,074	99.13	2.83%

92	Newtown	43	12.47	9,660	165	9,825	99.77	1.68%
92	Newtown	44	12.47	8,896	205	9,101	94.71	2.25%
341	Nicholsville	41	12.47	2,130	57	2,187	99.96	2.61%
341	Nicholsville	42	12.47	2,666	40	2,706	100.00	1.48%
341	Nicholsville	43	12.47	3,892	98	3,990	99.17	2.46%
332	NICKEL	41	12.47	3184	61	3245	99	1.88
332	NICKEL	42	12.47	0	0	0	0	0
332	NICKEL	43	12.47	4217	32	4249	98	0.76
363	NILLES	41	12.47	7167	17	7184	97	0.24
363	NILLES	42	12.47	6671	64	6735	93	0.96
106	North Pole	41	12.47	2,682	121	2,803	99.60	4.32%
52	NORTHGREEN	41	12.47	6506	61	6567	97.00	0.93%
52	NORTHGREEN	42	12.47	6578	53	6631	98.00	0.80%
52	NORTHGREEN	43	12.47	9593	67	9660	96.00	0.69%
52	NORTHGREEN	44	12.47	8024	56	8080	100.00	0.69%
8	OAKLEY	37	12.47	2557	32	2589	100.00	1.24%
8	OAKLEY	38	12.47	9807	345	10152	100.00	3.40%
8	OAKLEY	39	12.47	5647	61	5712	94.00	1.07%
8	OAKLEY	40	12.47	9257	263	9520	100.00	2.76%
8	OAKLEY	41	12.47	9787	153	9941	100.00	1.54%
8	OAKLEY	42	12.47	5685	65	5750	97.00	1.13%
8	OAKLEY	43	12.47	6143	37	6180	99.00	0.60%
8	OAKLEY	44	12.47	8547	115	8662	100.00	1.33%
8	OAKLEY	45	12.47	5839	77	5916	100.00	1.30%
8	OAKLEY	46	12.47	8994	257	9255	99.00	2.78%
8	OAKLEY	47	12.47	2918	5	2923	99.00	0.17%
8	OAKLEY	48	12.47	4568	63	4661	100.00	1.35%
8	OAKLEY	49	12.47	4266	23	4292	100.00	0.54%
8	OAKLEY	52	34.5	7647	73	7720	98.00	0.95%
8	OAKLEY	853	34.5	9545	138	9683	94.00	1.43%
8	OAKLEY	854	34.5	3155	86	3261	96.00	2.64%
200	OBannonville	51	34.50	15,164	150	15,314	99.95	0.98%
200	OBannonville	52	34.50	11,781	118	11,899	99.60	0.99%
212	Olive Branch	41	12.47	3,850	43	3,893	99.14	1.10%
212	Olive Branch	42	12.47	3,467	81	3,548	98.21	2.28%
322	OTTERBEIN	41	12.47	5519	270	5789	95	4.66
322	OTTERBEIN	42	12.47	4409	128	4536	95	2.81
320	PARK	41	12.47	5330	27	5357	100	0.5
320	PARK	42	12.47	9085	233	9318	97	2.5
320	PARK	44	12.47	9595	603	10198	99	5.91
320	PARK	45	12.47	1723	9	1731	99	0.52
320	PARK	46	12.47	3672	46	3718	97	1.24
320	PARK	47	12.47	9638	307	12937	93	2.37
190	Pippin	41	12.47	6578	128	6706	100	1.90
164	PISGAH	41	12.47	4413	32	4528	100	0.7
164	PISGAH	42	12.47	6331	85	6460	99	1.31
164	PISGAH	43	12.47	5131	35	5166	99	0.67

164	PISGAH	44	12.47	8486	108	8814	99	1.23
198	Pleasant Plain	31	12.47	1,698	55	1,753	90.00	3.14%
198	Pleasant Plain	32	12.47	1,500	14	1,514	89.98	0.92%
215	PLEASANT VALLEY	41	12.47	6379	105	6484	95	1.61
215	PLEASANT VALLEY	42	12.47	6762	38	6801	95	0.57
215	PLEASANT VALLEY	43	12.47	7998	54	8051	97	0.67
352	POAST TOWN	41	12.47	7574	278	7852	95	3.54
38	PORT UNION	41	12.47	10176	156	10331	98	1.51
38	PORT UNION	42	12.47	5500	61	5560	98	1.09
38	PORT UNION	43	12.47	8788	164	8952	98	1.83
38	PORT UNION	44	12.47	7032	56	7088	98	0.8
38	PORT UNION	45	12.47	12812	220	13032	98	1.69
38	PORT UNION	56	34.5	20740	239	20979	99	1.14
38	PORT UNION	57	34.5	8951	23	8974	99	0.26
5	PRICE HILL	41	12.47	7843	52	7897	98.00	0.66%
5	PRICE HILL	42	12.47	8798	228	9026	98.00	2.53%
5	PRICE HILL	43	12.47	8593	119	8713	99.00	1.37%
355	PRINCETON	41	12.47	9296	215	9511	97	2.26
355	PRINCETON	42	12.47	9443	296	9739	96	3.04
355	PRINCETON	43	12.47	9078	227	9306	98	2.44
355	PRINCETON	44	12.47	9648	333	9982	99	3.34
293	QUEENSGATE	41	12.47	6697	317	7014	99.00	4.52%
293	QUEENSGATE	42	12.47	8162	59	8223	97.00	0.72%
293	QUEENSGATE	43	12.47	8645	113	8758	99.00	1.29%
293	QUEENSGATE	44	12.47	4964	139	5104	99.00	2.72%
344	RED LION	41	12.47	7550	546	8096	99	6.74
344	RED LION	42	12.47	5581	118	5699	99	2.07
344	RED LION	43	12.47	4551	159	4710	98	3.38
94	Remington	41	12.47	5,367	141	5,508	94.55	2.56%
94	Remington	42	12.47	5,531	121	5,652	96.17	2.14%
94	Remington	43	12.47	8,959	203	9,162	94.97	2.22%
94	Remington	44	12.47	7,186	236	7,422	99.44	3.18%
94	Remington	51	34.50	14,866	284	15,150	97.77	1.87%
94	Remington	52	34.50	14,138	91	14,229	98.23	0.64%
94	Remington	53	34.50	20,478	358	20,836	96.27	1.72%
94	Remington	59	34.50	26,220	450	26,670	98.58	1.69%
207	RIVER CIRCLE	41	12.47	10741	164	10906	93	1.51
82	ROCHELLE	42	12.47	8730	96	8826	92.00	1.09%
82	ROCHELLE	43	12.47	8078	82	8160	87.00	1.00%
82	ROCHELLE	45	12.47	9153	88	9241	92.00	0.95%
82	ROCHELLE	48	12.47	2137	6	2143	87.00	0.28%
82	ROCHELLE	8222	12.47	1441	5	1446	88.00	0.35%
82	ROCHELLE	8223	12.47	1545	3	1548	87.00	0.19%
117	Russellville	41	12.47	3,311	100	3,411	95.92	2.93%
185	Rybolt	41	12.47	7904	101	8005	87	1.27
185	Rybolt	42	12.47	13866	203	10274	94	1.97
223	Sayler Park	41	12.47	10290	189	10479	93	1.80

115	SEVEN MILE	41	12.47	948	52	1000	87	5.22
115	SEVEN MILE	42	12.47	5489	171	5660	100	3.02
330	SEWARD	41	12.47	7276	125	7402	100	1.69
330	SEWARD	42	12.47	7002	59	7061	95	0.83
330	SEWARD	43	12.47	734	1	734	85	0.08
330	SEWARD	44	12.47	4077	123	4200	95	2.94
330	SEWARD	45	12.47	3065	25	3090	99	0.81
330	SEWARD	46	12.47	5427	60	5488	93	1.1
191	SIMPSON	41	12.47	4910	10	4920	93	0.21
191	SIMPSON	42	12.47	8011	80	8091	93	0.98
191	SIMPSON	43	12.47	4235	29	4264	93	0.67
191	SIMPSON	44	12.47	10008	126	10134	100	1.25
191	SIMPSON	45	12.47	5800	97	5897	100	1.64
191	SIMPSON	46	12.47	8208	46	8254	100	0.55
191	SIMPSON	47	12.47	3019	13	3032	90	0.43
191	SIMPSON	48	12.47	2159	6	2165	90	0.28
175	SOCIALVILLE	41	12.47	12082	304	12386	99	2.45
175	SOCIALVILLE	42	12.47	6343	74	6417	94	1.15
175	SOCIALVILLE	43	12.47	9051	131	8763	100	1.5
175	SOCIALVILLE	44	12.47	10837	147	11319	100	1.3
81	South Bethel	41	12.47	6,068	165	6,233	98.55	2.65%
81	South Bethel	51	34.50	5,067	80	5,147	96.98	1.55%
81	South Bethel	52	34.50	12,938	158	13,096	97.48	1.21%
179	SPRINGBORO	41	12.47	5244	110	5354	97	2.05
179	SPRINGBORO	42	12.47	9326	251	9655	99	2.6
179	SPRINGBORO	43	12.47	10575	233	10731	100	2.18
179	SPRINGBORO	44	12.47	10048	275	10323	97	2.66
165	SPRINGDALE	41	12.47	5925	34	5959	87.00	0.57%
165	SPRINGDALE	42	12.47	8472	149	8621	99.00	1.73%
327	STILLWELL	41	12.47	4735	114	4849	95	2.34
69	Summerside	41	12.47	9,506	245	9,751	99.35	2.51%
69	Summerside	42	12.47	8,934	151	9,085	99.90	1.66%
69	Summerside	43	12.47	9,271	124	9,395	99.49	1.32%
69	Summerside	55	34.50	23,475	205	23,680	96.26	0.87%
69	Summerside	56	34.50	10,672	252	10,924	96.78	2.31%
69	Summerside	57	34.50	4,896	39	4,935	92.42	0.79%
69	Summerside	59	34.50	13,005	91	13,096	99.84	0.69%
126	Sutton	41	12.47	7,969	83	8,052	98.31	1.03%
183	SYMMES	41	12.47	7689	68	7757	100	0.88
183	SYMMES	42	12.47	4706	27	4733	95	0.57
183	SYMMES	43	12.47	5172	35	5206	98	0.67
17	Terminal	41	12.47	7767	96	7863	97	1.22
17	Terminal	42	12.47	9728	194	9922	95	1.95
17	Terminal	43	12.47	10861	383	11244	99	3.41
17	Terminal	44	12.47	9608	350	9958	100	3.52
17	Terminal	58	34.50	4257	164	4420	92	3.70
17	Terminal	59	34.50	9579	51	9630	99	0.53

63	Tobasco	41	12.47	10,071	291	10,362	99.75	2.81%
60	Tobasco	42	12.47	9,770	149	9,919	96.82	1.50%
61	Tobasco	43	12.47	10,603	264	10,867	99.71	2.43%
62	Tobasco	44	12.47	9,382	105	9,487	99.90	1.11%
63	Tobasco	45	12.47	8,882	148	9,030	99.97	1.64%
63	Tobasco	46	12.47	8,270	244	8,514	99.86	2.87%
32	TRENTON	41	12.47	5638	157	5795	97	2.72
32	TRENTON	42	12.47	6977	398	7375	94	5.4
32	TRENTON	43	12.47	6766	181	6947	99	2.61
32	TRENTON	44	12.47	9992	187	10179	98	1.84
32	TRENTON	45	12.47	9778	845	10623	100	7.95
32	TRENTON	46	12.47	9500	608	10108	95	6.01
361	TURTLE CREEK	41	12.47	7202	705	7907	99	8.92
361	TURTLE CREEK	42	12.47	8580	626	9206	95	6.8
176	TWENTY MILE	41	12.47	11701	166	11142	100	1.49
176	TWENTY MILE	42	12.47	4544	27	4571	99	0.59
176	TWENTY MILE	43	12.47	5647	27	5674	100	0.47
176	TWENTY MILE	44	12.47	8948	157	9105	96	1.72
150	TYLERSVILLE	41	12.47	15095	378	15390	96	2.45
150	TYLERSVILLE	42	12.47	8303	115	8501	95	1.36
162	UNION	41	12.47	8623	120	8743	100	1.37
162	UNION	42	12.47	11503	160	11663	99	1.37
162	UNION	49	12.47	7138	46	7184	100	0.64
122	Vera Cruz	41	12.47	3,338	54	3,392	88.67	1.59%
3	WALNUT HILLS	41	12.47	4124	37	4161	96.00	0.89%
3	WALNUT HILLS	42	12.47	7983	93	8076	100.00	1.15%
3	WALNUT HILLS	43	12.47	5997	19	6016	95.00	0.32%
3	WALNUT HILLS	44	12.47	5883	72	5955	99.00	1.21%
3	WALNUT HILLS	45	12.47	51	0	51	16.00	0.00%
3	WALNUT HILLS	46	12.47	3339	12	3351	91.00	0.36%
3	WALNUT HILLS	48	12.47	6945	33	6979	92.00	0.47%
3	WALNUT HILLS	335	12.47	4846	22	4868	100.00	0.45%
214	Wards Corner	41	12.47	4,490	73	4,563	99.23	1.60%
214	Wards Corner	42	12.47	4,582	22	4,604	98.11	0.48%
214	Wards Corner	43	12.47	6,508	153	6,661	99.92	2.30%
15	WEST END	42	12.47	3215	39	3254	88.00	1.20%
15	WEST END	43	12.47	2167	3	2170	87.00	0.14%
15	WEST END	44	12.47	1683	21	1704	87.00	1.23%
15	WEST END	45	12.47	4554	93	4647	88.00	2.00%
277	White Oak	41	12.47	9303	174	9477	100	1.84
277	White Oak	42	12.47	5137	28	5165	87	0.54
97	Willey	51	34.5	13978	178	14156	94	1.26
97	Willey	52	34.5	10837	59	10896	87	0.54
97	Willey	53	34.5	16632	124	16756	87	0.74
97	Willey	54	34.5	9579	83	9662	97	0.85
145	Withamsville	41	12.47	5,335	51	5,386	94.30	0.95%
145	Withamsville	42	12.47	8,198	235	8,433	99.97	2.79%

145	Withamsville	43	12.47	8,558	94	8,652	96.84	1.09%
145	Withamsville	44	12.47	6,140	19	6,159	99.98	0.31%
288	WOODLAWN	41	12.47	8434	41	8475	94.00	0.48%
268	WYSCARVER	41	12.47	6758	36	6794	100.00	0.53%
268	WYSCARVER	42	12.47	8587	73	8660	100.00	0.84%

Attachment DLS-2

Duke Energy Ohio Distribution System Efficiency Metrics - IVVC

The attached report is being filed annually along with Duke Energy Ohio's Smart Grid Cost Recovery filing as agreed to by parties on February 6, 2013 when parties met to discuss reporting of distribution system efficiencies from Integrated Volt/Var Control (IVVC) implementation. As discussed in that meeting, the IVVC development and testing began in the 4th quarter of 2012 and thus this report for 2012 would show no real MWH reduction.

The following report reflects the number of circuits that were operating in test mode beginning in the 4th quarter of 2012. With these circuits operating in test mode, only operating for a minimal amount of time in relation to the entire year, and the IVVC algorithm continually being upgraded during the test period, the resulting Test Circuits Average Voltage Baseline (2012) shown below reflects no reduction from the System Average Voltage Baseline (2012).

The Average Voltage with IVVC is what was experienced during testing on 4 circuits. Likewise, the MWH Reduction under IVVC results represent what would have occurred if the 4 circuits were under IVVC control for the entire year of 2012.

System Avg Voltage Baseline(2012)	123.2					
Test Circuits Avg Voltage Baseline(2012)	123.3					
IVVC Operation	**Avg Voltage with IVVC**	Volt Reduction% under IVVC	MWH under IVVC Control	**MWH Reduction under IVVC**	CVR Factor	Circuits under IVVC Control
IVVC System Avg Voltage	**121.4**	1.54%	119,064	**917**	0.5	4
IVVC System Avg Voltage	**121.4**	1.54%	119,064	**1449**	0.79	4

Duke Energy Ohio Exhibit_____

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc. to Adjust Rider DR-IM and Rider AU for 2012 SmartGrid Costs.	)))	Case No. 13-1141-GE-RDR

DIRECT TESTIMONY OF

TIMOTHY J. DUFF

ON BEHALF OF

DUKE ENERGY OHIO, INC.

June 28, 2013

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Timothy J. Duff. My business address is 526 South Church Street,
3 Charlotte, North Carolina 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am Director, Customer Planning and Regulatory Strategy, for Duke Energy
6 Business Services, LLC.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**
8 **QUALIFICATIONS.**

9 A. I graduated from Michigan State University with a Bachelor of Arts in Political
10 Economics and a Bachelor of Arts in Business Administration, and received a
11 Master of Business Administration from the Stephen M. Ross School of Business
12 at the University of Michigan. I started my career with Ford Motor Company and
13 worked in a variety of roles within the Company's financial organization. After
14 five years with Ford Motor Company, I began work with Cinergy in 2001,
15 providing business and financial support to plant operating staff. Eighteen
16 months later I joined Cinergy's Rates Department, where I provided revenue
17 requirement analytics and general rate support for the company's transfer of three
18 generating plants. After my time in the Rates Department, I spent a short period
19 of time in the Environmental Strategy Department, and then I joined Cinergy's
20 Regulatory and Legislative Strategy Department. After Cinergy merged with
21 Duke Energy in 2006, I worked for four years as Managing Director, Federal
22 Regulatory Policy. In this role, I was primarily responsible for developing and

1 advocating Duke Energy's policy positions with the Federal Energy Regulatory
2 Commission. I assumed my current position in 2010.

3 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
4 **UTILITIES COMMISSION OF OHIO?**

5 A. Yes, I have testified previously before the Public Utilities Commission of Ohio
6 (Commission) in matters related to Duke Energy Ohio, Inc.'s (Duke Energy Ohio)
7 energy efficiency portfolio and the associated recovery mechanism, a decoupling
8 pilot, and in the Company's SmartGrid Rider cases. I have also provided
9 testimony in cases before the Indiana Utilities Regulatory Commission, the North
10 Carolina Public Utilities Commission, and the Kentucky Public Service
11 Commission.

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
13 **PROCEEDING?**

14 A. The purpose of my testimony is to discuss the dynamic pricing pilot programs that
15 Duke Energy Ohio is conducting, Duke Energy Ohio's work with the Duke
16 Energy Ohio Grid Modernization Collaborative (Collaborative), which was
17 formerly called the Duke Energy Ohio SmartGrid Collaborative, and discuss the
18 general education and awareness campaign related to grid modernization that it
19 will be rolling out later this year.

II. DUKE ENERGY OHIO GRID MODERNIZATION COLLABORATIVE

20 **Q. PLEASE DISCUSS THE WORK OF THE DUKE ENERGY OHIO GRID**
21 **MODERNIZATION COLLABORATIVE.**

A. Shortly after the Commission approved Duke Energy Ohio's deployment of SmartGrid in 2008, the Company convened a meeting, open to all interested parties, to discuss the Company's plans for its implementation of SmartGrid. The Office of the Ohio Consumers' Counsel, Ohio Partners for Affordable Energy, the Staff of the Public Utilities Commission of Ohio (Staff) and others participate on a regular basis. These regular monthly meetings of the Grid Modernization Collaborative (Collaborative) provide Duke Energy Ohio with a valuable opportunity to provide timely and comprehensive detail regarding the status of the deployment and engage the various parties in open and free-flowing discussions. Through its first three years of experiences with pilot time-differentiated rates, Duke Energy Ohio has used these discussions to better understand and act upon the various views of the Parties and, in many cases, to modify and enhance the Company's plans. Duke Energy Ohio continues to leverage the benefits gained from the Collaborative, and the design of its 2013 pilot tariff offering was formulated as a direct results of a collaborative vote on two potential options. Additionally, Duke Energy Ohio has utilized the Collaborative to test and approve the media plan and the associated budget for the general education and awareness campaign it agreed to deploy as a part of the settlement reached and approved in Case No. 10-2326-GE-RDR. Duke Energy Ohio appreciates the work of the Staff and the Parties for their contribution and dedication to the work of the Collaborative, and the Company hopes to continue with these meetings throughout its grid modernization deployment.

1 **Q. PLEASE EXPLAIN THE ROLL THAT TIME DIFFERENTIATED RATES**
2 **WILL PLAY IN THE PROVIDING BENEFITS TO CUSTOMERS.**
3 A. Although the Company's financial justification for its deployment has not
4 formally recognized any of the potential customer benefits that could be realized
5 from time-differentiated rates, continuing down a deliberate path of developing
6 time-differentiated rate pilots is appropriate. Through Duke Energy Ohio's pilot
7 programs in 2010, 2011, and 2012, the Company and the Collaborative learned a
8 tremendous amount about customer acquisition, attractiveness of different rate
9 designs and potential impacts associated with different rate designs. Building
10 upon all of this information, the Company plans to continue to work with the
11 Collaborative on offering tariff rate pilots during the remainder of its deployment,
12 to better understand customers' requirements and receptiveness to time
13 differentiated rates and demonstrate the customer benefits that can be realized
14 from having the opportunity to be served under time differentiate rates.
15 **Q. PLEASE DISCUSS DUKE ENERGY OHIO'S APPROACH TO NEW**
16 **TARIFFS.**
17 A. Just as with the actual physical deployment of Smart Grid, Duke Energy Ohio
18 continues to take a very deliberate and calculated approach to rolling out a
19 portfolio of time-differentiated rates. One example of this deliberate approach
20 was Duke Energy Ohio's decision to continue to test its Peak Time Rebate design
21 over a period of 3 years with a consistent incentive per kWh reduced during a
22 peak event. Over 2010, 2011, and 2012, Duke Energy Ohio tweaked its Peak
23 Time Rebate offering terms with respect to the number of events, the length of

1 events, and even the acquisition approach, but kept the incentive of $0.28 constant
2 in order to ascertain what customer behavioral modifications were attributable to
3 the design changes, rather than a rate change. As a result, Duke Energy Ohio was
4 able to better understand how to acquire and increase participation of Peak Time
5 Rebate customers.

6 **Q. PLEASE EXPLAIN DUKE ENERGY OHIO'S PILOT RATE PROGRAMS.**

7 A. In 2010, after working with the Collaborative to gather valuable suggestions for
8 differing approaches, the Company piloted rate Time Differentiated Advanced
9 Metering (Rate TD-AM) voluntary opportunity to be served on time-of-day rates.
10 Later in 2010, the Company offered customers a second pilot tariff, Peak Time
11 Rebate (PTR). The customer acquisition results for Duke Energy Ohio's first two
12 pilots, while somewhat disappointing as compared to the targeted participation,
13 did provide the Company and the Collaborative with important insights regarding
14 customer preference and the ability to test the underlying technology associated
15 with serving customers on time-differentiated rates.

16 **Q. WHAT WERE THE NEXT TARIFF DESIGNS AND PILOT OFFERS**
17 **PROPOSED BY DUKE ENERGY OHIO IN 2011?**

18 A. After obtaining valuable information about customer response from its previous
19 pilots, Duke Energy Ohio focused on rolling out a second wave of time-
20 differentiated pilots that incorporated some of its customer experience. In 2011,
21 Duke Energy Ohio piloted rate Time of Day Lite (TD-Lite), which is a time-of-
22 use rate with only three seasons, a shorter peak period (five hours) and a much
23 higher peak versus off-peak differential. These features made the rate simpler,

less disruptive and offered the opportunity for customers modifying their behavior appropriately to see a more substantial bill savings. In addition to the rate enhancements, a segment of this pilot group of customers received a Home Energy Management Device (HEM). An HEM is an electronic device that engages customers around their energy usage and allows them to control and program when devices such as air conditioners and pool pumps run and consume energy. The Company also piloted Rate Time of Day Critical Peak Pricing (TD-CPP) pilot which featured three seasons and a four hours peak peak period. This pilot combined the elements of the rates TD-AM and PTR, as it had every day time-of-use parameters, as well as an event-based price similar to the peak time rebate offering. Finally, Duke Energy Ohio developed and offered a second iteration of its Peak Time Rebate offering (PTR 2.0). This pilot featured a shorter, less intrusive five hour peak period, but still featured a $0.28 per kWh credit component. The other interesting aspect of this pilot was that it featured a bifurcated acquisition strategy with two hundred customers being offered the rate on an opt-out basis and two hundred customers being acquired through an opt-in program.

Q. PLEASE DISCUSS THE TIME DIFFERENTIATED RATE PILOTS THE COMPANY OFFERED CUSTOMERS IN 2012.

A. In 2012, after working with the Ohio Collaborative, Duke Energy Ohio offered customers two pilot rate designs. The first pilot offering was a time-of -use rate structure (TD 2012). The rate structure was similar to the one offered in 2011, however the company offered customers three variations of the rate that reflect

1 different ratios of peak to off-peak pricing. Essentially, the pilot allowed
2 customers to affirmatively select among three rates within the structure, so that
3 they could pick a rate that aligns with their personal risk/reward preferences. One
4 rate had a peak rate that was approximately 250% of the Base RS residential rate,
5 one rate had a peak rate that was approximately 350% of the Base RS residential
6 rate, and finally, one rate had a peak rate that was approximately 450% of the
7 Base RS residential rate. Essentially, the pilot offered customers the ability to
8 affirmatively select among three rates within the proposed tariff structure that
9 aligned with their personal risk/reward preferences.

10 The second pilot Duke Energy Ohio offered in 2012 was another iteration
11 of a peak time rebate pilot. The pilot was offered to customers on Duke Energy
12 Ohio's standard residential rate. The purpose of this pilot was to validate some of
13 the preliminary insights that were gained in 2010 and 2011. The pilot continued to
14 offer customers the opportunity to receive a rebate of $0.28 for every kWh of
15 reduction that they take make in comparison to their baseline usage during a peak
16 period of 2:00 PM to 7:00PM. One additional change to the pilot design was the
17 expansion of the number of events that may be called from ten to fifteen, which
18 allowed for an assessment regarding what impact the number of events has on
19 customer acquisition and satisfaction with the program. The Company again
20 employed a bifurcated acquisition for this PTR pilot.

21 The 2012 pilots proved to be the Company's most successful from an
22 acquisition standpoint. Through a solicitation of over 42,000 customers, the
23 Company acquired nearly 200 customers on TD 2012 across the three offers and

1 was through a solicitation of a separate 41,000 customers was able to acquire over
2 725 customers on PTR 3.0, including 400 customers through the opt-out
3 acquisition. While this successful acquisition allowed the Company to exceed
4 1,000 participants for the first time, the scale was short-lived. Shortly after
5 acquisition, the City of Cincinnati aggregated, causing the pilots to lose over 170
6 customers. The Company believes that the acquisition of over 1,000 customers
7 across the two 2012 time-differentiated pilots represents a significant milestone
8 and is a positive sign. First, it clearly signified that the Company, along with the
9 Collaborative, has improved its understanding of how to more effectively market
10 the rates and acquire customers. Second, the increased participation in the pilots is
11 a sign that the rate structures are becoming more appealing to customers. Finally,
12 more customers may be becoming aware and comfortable with the concept of
13 time-differentiated rates.

14 **Q. PLEASE DISCUSS THE TIME DIFFERENTIATED RATE PILOTS THAT**
15 **THE COMPANY WILL PROPOSE TO THE COMMISSION FOR**
16 **APPROVAL IN 2013.**

17 A. After considering its time-differentiated pilots to date, Duke Energy Ohio believes
18 that it has tested many facets of time-differentiated pricing, and believes that there
19 are two major components that it still needs to be assessed with respect to the
20 effectiveness and attractiveness of rates to customers. Duke Energy Ohio would
21 like to assess the impact that giving customer choice regarding the when peak
22 period falls an also persistence of impacts. For that reason, in an application filed
23 with the Commission in December of 2012, proposing the TD-13 time

1 differentiated rate pilot. Duke Energy Ohio, as with all of its pilots, vetted the
2 rationale and structure of the TD -13 with its Ohio Collaborative and incorporated
3 the feedback received in the rate design proposed in the TD- 13 Tariff. The basic
4 rate structure is similar to TD 2012 and the TD-Lite Pilot offered in 2011, as it
5 features three seasons and two rate periods. The summer season will run June
6 through August and feature a peak period lasting from 1PM to 7PM. The Winter
7 Season will run December through February and will feature a peak period lasting
8 from 7AM to 1PM. The remainder of the year Fall/Spring season will be all off
9 peak. What is significantly different is that customers will be able to select a three
10 hour block within the peak period for both the summer and Winter Seasons.
11 In other words, at the customer's selection, they will have peak pricing for only
12 half of the peak hours. Obviously since there are effectively half of the total peak-
13 priced hours, the peak to off peak price differential is higher than under TD-2012
14 and is approximately 8 to 1. Due to this flexibility in the offering, there will be a
15 total of nine different configurations of the pilot that a customer can choose to
16 participate in.
17 By allowing customers to choose a shorter peak period, Duke Energy Ohio
18 anticipates the ability to assess if the flexibility will make participation more
19 attractive and potentially acquire more customers. Duke Energy Ohio hopes to
20 gain important insights regarding customers taking on more significant behavioral
21 changes, since they can do it over a shorter period. The other significant feature of
22 the pilot is that Duke Energy Ohio requested the pilot's duration be 24 months
23 rather than 12 months that was the duration of all of its prior pilots. Duke Energy

Ohio believes that a longer pilot will allow it to assess the persistence of customer's response to price signals included in the pilot. Duke Energy Ohio believes it is important to assess the long term satisfaction of customers on a time-differentiated rates and their willingness to respond to the price signals over a period longer than twelve months.

Duke Energy Ohio is targeting 5,000 customers for this pilot acquisition. While this target appears to be aggressive given past acquisitions, Duke Energy Ohio believes that the rate will be more attractive given the level of customer flexibility and the large pool of customer it plans to solicit over 100,000 customers. The Pilot was approved by the Ohio Commission on February 13, 2013 and customer acquisition campaigns began on May 1, 2013.

Q. IS THE COMPANY UNDERTAKING ANY OTHER ACTIVITIES TO FACILITATE THE AVAILABILITY OF TIME-DIFFERENTIATED RATES TO CUSTOMERS?

A. Yes, the Company is undertaking the following activities to enhance the availability of time-differentiated rates to customers:

- As a component of the approved stipulation in Case No. 10-2326-GE-RDR, the Company committed to conduct workshops for CRES providers and interested parties twice a year during the course of SmartGrid deployment so long as there is interest in doing so. Duke Energy Ohio conducted the first educational workshop on October 17, 2012 and shared its experiences related to the Company's piloting of time-differentiated rates. In particular, Duke focused on the various rate

1 designs that it had offered customers in 2010, 2011 and 2012, as well as
2 some of the struggles it had experience with respect to customer
3 acquisition. The Company has scheduled its second workshop for June
4 20, 2013 and plans to discuss in more detail the impacts associated with
5 its different pilots.

6 o The Company has delivered on its commitment to have the billing system
7 functionality to allow CRES providers the capability to offer CRES
8 customers time-differentiated rates consistent with its existing supplier
9 tariff by January 1, 2013.

10 o The Company has worked with its Collaborative to develop deployment
11 plans and the associated budgets for a general public awareness and
12 education campaign designed to increase customer awareness and inform
13 customers about the justification for time-differentiated rates and the
14 value that they can potentially bring to customers.

15 **Q. PLEASE DESCRIBE IN MORE DETAIL THE COMPANY'S EFFORTS**
16 **TO DEVELOP A GENERAL EDUCATION AND AWARENESS**
17 **CAMPAIGN AGREED TO IN THE STIPULATION APPROVED IN CASE**
18 **NO. 10-2326-EL-RDR?**

19 A. At the February 20th meeting of the Duke Energy Ohio Grid Modernization
20 Collaborative, Duke Energy Ohio discussed different options regarding media
21 option with which to most effectively deliver the general education and awareness
22 campaign. It also discussed potential messaging to be included in the campaign,
23 with a specific focus on raising customers understanding and awareness of time-

1 differentiated rates, while not directly marketing the any specific Duke Energy
2 Ohio pilot rate offers. After discussing potential ways to design the campaign,
3 consensus was reached regarding a desire to make the campaign deliberate
4 approach over the final two years of the Company's deployment of its grid
5 modernization program. Finally, as a result of the discussions at the meeting, the
6 Collaborative directed the Company to come back to it with two separate
7 proposals for potential budgets for the campaign and the associated projected
8 reach of each budget. The Company, with the assistance of an advertising agency
9 designed to detailed budgets for campaigns and shred them with members on a
10 conference call on March 20, 2013. After this meeting the Collaborative directed
11 Duke Energy Ohio to proceed with the more aggressive two-year campaign.

12 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED**
13 **GENERAL EDUCATION AND AWARENESS CAMPAIGN THAT IT**
14 **REQUESTING COMMISSION APPROVAL OF FOR RECOVERY IN IT**
15 **SMART GRID RIDER?**

16 A. The Company, after incorporating the input of the Collaborative and gaining its
17 approval, is proposing a general education and awareness campaign that will last
18 two years and have a total budget of $850,000. The majority of the expense,
19 $500,000, will occur in year one of the campaign and will be focused on gaining
20 customers' attention and establishing the foundational messaging of the
21 campaign. The second year of the campaign year will focus on establishing more
22 advanced comprehension of the potential benefits associated with grid
23 modernization and reinforcing the foundational messaging of the first year. The

1 campaign will feature media ranging from messaging delivered at mall kiosks and
2 home shows to cable television and standard print media. Based on estimates
3 from the advertising agency that Duke Energy Ohio worked with, the campaign
4 should reach almost 4.5 million people and create nearly 25 million impressions
5 with customers. A successful campaign will create greater customer awareness of
6 what Duke Energy Ohio's grid modernization program entails and the various
7 customer benefits associated with grid modernization. In particular, the campaign
8 will emphasize that time-differentiated rates offer customers an opportunity to
9 take control of their usage and energy bills.

II. CONCLUSION

10 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

11 A. Yes.

Duke Energy Ohio Exhibit _____

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc. to Adjust Rider DR-IM and Rider AU for 2012 SmartGrid Costs.	)))	**Case No. 13-1141-GE-RDR**

DIRECT TESTIMONY OF

PEGGY A. LAUB

ON BEHALF OF

DUKE ENERGY OHIO, INC.

June 28, 2013

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Attachments

I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Peggy A. Laub. My business address is 139 East Fourth Street,
3 Cincinnati, Ohio 45202

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC, an affiliate of Duke
6 Energy Ohio, Inc. (Duke Energy Ohio, or Company) as Accounting Manager.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**
8 **QUALIFICATIONS.**

9 A. I received a Bachelor of Business Administration Degree with a major in
10 accounting from the University of Cincinnati. I began my career with The
11 Cincinnati Gas & Electric Company, the predecessor of Duke Energy Ohio, Inc.,
12 in the Accounting Department in 1981. I worked in various departments
13 including Tax, Regulated Business Unit's financial group and Fixed Assets. In
14 May 2006, following the merger with Duke Energy Corporation, I transferred to
15 the Midwest US Franchised Electric & Gas accounting group. In November
16 2008, I transferred to the Midwest wholesale accounting group as Manager of
17 Wholesale and Bulk Power Marketing accounting. In May 2010, I transferred to
18 the Rate Department and to my current position as Rates Manager.

19 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
20 **UTILITIES COMMISSION OF OHIO (COMMISSION)?**

21 A. Yes. I previously testified in a number of cases before this and other regulatory
22 commissions.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My testimony is divided into two parts. The first part addresses the electric Rider DR-IM (Distribution Reliability – Infrastructure Modernization) and the second part addresses the gas Rider AU (Advanced Utility). In both parts, I provide an overview of the revenue requirement calculation for the respective riders and then describe each schedule supporting the revenue requirement calculation. I will be sponsoring Attachment PAL-1 and Attachment PAL-2 to support the proposed charges for Rider DR-IM and for Rider AU. I also address the inclusion of the Gas Furnace Program in Rider AU.

II. REVENUE REQUIREMENT CALCULATIONS

Q. PLEASE DESCRIBE THE COMPONENTS OF THE REVENUE REQUIREMENTS INCLUDED IN RIDER DR-IM AND RIDER AU.

A. The revenue requirement for both riders includes the following components:

- a return on the rate base;
- depreciation and property taxes; and
- incremental expenses.

Q. HOW IS RATE BASE CALCULATED?

A. Rate base is calculated in a manner consistent with the traditional rate base calculation for a general retail rate case. One component is net plant, or gross plant minus accumulated depreciation. Another common component is accumulated deferred income taxes associated with accelerated tax depreciation. The stipulations approved by the Commission in its Order in Case No. 08-920-

EL-SSO, *et al.*, and its Order in Case No. 09-543-GE-RDR, allow an additional component of rate base in the form of post-in-service carrying costs (PISCC). Because there are deferred income taxes associated with this item, an additional adjustment is made to offset rate base for accumulated deferred income taxes on this item.

Q. ARE THERE COSTS THAT ARE SHARED BETWEEN THE ELECTRIC AND GAS DISTRIBUTION BUSINESSES?

A. Yes. The fact that Duke Energy Ohio is a combination electric and gas utility allows the Company to maximize the potential benefits of the SmartGrid project for both electric and gas customers. For much of the SmartGrid equipment, it is a simple exercise to assign costs directly to electric or to gas. The cost of some equipment and some expenses, however, is incurred for both electric and gas services.

The costs for "common" equipment are allocated between gas and electric service based on appropriate allocation factors. The development of these allocation factors is based on the Company's determination of the extent to which each type of plant (*e.g.*, communication boxes, information technology costs (IT), etc.) contributes to the gas or electric SmartGrid function.

Q. DESCRIBE THE COMPUTATION FOR DEPRECIATION AND PROPERTY TAX EXPENSES INCLUDED IN THE RIDER DR-IM AND RIDER AU REVENUE REQUIREMENT.

A. Depreciation expense is annualized by using currently approved accrual rates and the depreciable gross plant for each plant type as of December 31, 2012.

Similarly, property tax expense is annualized by applying the latest average property tax rates to the calculated property tax valuation as of December 31, 2012.

Q. WHAT INCREMENTAL EXPENSES ARE INCLUDED IN THE REVENUE REQUIREMENT CALCULATIONS?

A. The only incremental expenses included in the Rider DR-IM and Rider AU revenue requirement calculations are specifically identifiable costs associated with the implementation of the SmartGrid project for gas and electric. Such costs include IT costs, system support, data transfer fees, and any other costs that can be directly attributed to the SmartGrid program.

Q. DO THE REVENUE REQUIREMENT CALCULATIONS REFLECT THE SAVINGS THAT DISTRIBUTION AUTOMATION AND SMARTGRID PROJECTS WILL GENERATE?

A. Yes. In the Order in Case No. 10-2326-GE-RDR, the Commission approved a stipulation that included an agreement by Duke Energy Ohio to establish an amount of savings to include in both Rider DR-IM and Rider AU. These savings are reflected in Schedule 12 of my attachments.

III. CHANGES FROM PRIOR FILING

Q. HAVE YOU MADE ANY CHANGES IN THE REVENUE REQUIREMENT CALCULATIONS SINCE THE COMPANY'S LAST SMARTGRID COST RECOVERY FILING?

A. No.

1 **Q. PLEASE EXPLAIN THE ADJUSTMENTS THAT WERE MADE TO THE**
2 **DECEMBER 31, 2011, BALANCES.**
3 A. The December 31, 2011, balance was eliminated in Rider AU as the recovery for
4 the rate base items is included in pending Case No. 12-1685-GA-AIR, *et al.*
5 **Q. WHY HAVE THE 2012 GAS FURNACE PROGRAM COSTS BEEN**
6 **INCLUDED IN THE REVENUE REQUIREMENT?**
7 A. The Stipulation approved by the Commission in the Company's Electric Security
8 Plan, Case No. 08-920-EL-SSO, *et al.*, approved Rider DR-IM and included a
9 provision for recovering the Gas Furnace Program costs through the SmartGrid
10 Rider. Accordingly, those costs have been included in the Rider AU revenue
11 requirement.
12 **Q. WHAT IS THE NATURE AND AMOUNT OF THOSE COSTS?**
13 A. For the year 2012 and first quarter of 2013, the Company provided $2,285,693of
14 incentive payments to customers for installing high efficiency gas furnaces and
15 incurred $320,486 of administrative costs for the program. The total of these
16 costs, $2,606,179, is included in the revenue requirement calculation for recovery
17 through Rider AU. Since calendar year 2012 was the last year for the program we
18 have included costs incurred in the first quarter of 2013 related to the 2012
19 program.
20 **Q. PLEASE EXPLAIN THE CREDIT FOR THE COMPANY'S GAS-ONLY**
21 **CUSTOMERS.**
22 A. The Company has customers in Adams County, Georgetown, and Lebanon, Ohio,
23 to whom it provides only gas service. These customers are located in an area

1 outside of Duke Energy Ohio's electric service territory. We have committed to
2 only include the costs of SmartGrid gas deployment in the monthly Rider AU
3 charge to these customers. The overall Rider AU revenue requirement includes
4 the gas portion of "common" costs and allocable project management
5 organization (PMO) costs. A monthly credit amount has been calculated to
6 eliminate these costs from the rider for these gas-only customers.

7 **Q. HOW HAS THIS ADJUSTMENT BEEN SHOWN IN THE SCHEDULES**
8 **USED TO CALCULATE THE RIDER AU REVENUE REQUIREMENT?**

9 A. At the bottom of each supporting schedule in Attachment PAL-2, the costs related
10 to "common" and PMO costs have been detailed. These costs are summarized at
11 the bottom of Schedule 1A as a credit revenue requirement amount. On Schedule
12 14, this credit amount is divided by the total number of gas bills to calculate the
13 monthly credit for the 8,795 gas-only customers.

14 **Q. ARE THE REMAINING CALCULATIONS THE SAME FOR RIDER DR-**
15 **IM AND RIDER AU?**

16 A. Yes. The remainder of my testimony describes the schedules used for the revenue
17 requirement calculations for both riders. Other than the two items discussed
18 above, the methodology is essentially the same for both riders.

IV. RIDER DR-IM

19 **Q. PLEASE PROVIDE A GENERAL OVERVIEW OF THE SCHEDULES**
20 **FOR RIDER DR-IM.**

21 A. The schedules provide extensive detail of the revenue requirement calculations for
22 Rider DR-IM, starting with support for the rate base component and the pre-tax rate

of return, followed by details for the expenses to be included. Finally, the schedules show the calculation of the proposed monthly rates for Rider DR-IM applicable to the rate classes.

Q. PLEASE EXPLAIN SCHEDULE 1 FOR ELECTRIC.

A. Schedule 1 summarizes the annualized revenue requirement for Duke Energy Ohio's Rider DR-IM rates. The underlying rate base reflects the net balance of the Company's investment in SmartGrid including distribution automation equipment as of December 31, 2012. The rate base shown is incremental to amounts in current rates as of the date certain used in the Company's most recently approved electric distribution rate case. The information on this schedule is supported in Schedules 2 through 12.

Q. PLEASE EXPLAIN SCHEDULE 2 FOR ELECTRIC.

A. Schedule 2 provides the adjusted balance of plant additions at December 31, 2011, and actual plant additions by month from January 1, 2012, through December 31, 2012. The beginning balance as of December 31, 2011, agrees with the amounts approved in the prior Rider DR-IM filing in Case No. 12-1811-GE-RDR.

Q. PLEASE EXPLAIN SCHEDULE 3 FOR ELECTRIC.

A. Schedule 3 provides the adjusted balance of accumulated provision for depreciation at December 31, 2011, and actual provision for depreciation by month from January 1, 2012, through December 31, 2012, to arrive at the balance as of December 31, 2012.

1 **Q. PLEASE EXPLAIN SCHEDULE 4 FOR ELECTRIC.**

2 A. Schedule 4 provides the adjusted balance of the PISCC regulatory asset at
3 December 31, 2011, and the PISCC activity by month from January 1, 2012,
4 through December 31, 2012, to arrive at the balance as of December 31, 2012. This
5 schedule also provides the balance of PISCC amortization at December 31, 2011,
6 and actual PISCC amortization by month from January 1, 2012, through December
7 31, 2012, to calculate the estimated balance at December 31, 2012. The net
8 electric PISCC Regulatory Asset for the periods is also provided.

9 **Q. PLEASE EXPLAIN SCHEDULE 5 FOR ELECTRIC.**

10 A. Schedule 5 provides the adjusted balance of electric PISCC and electric O&M
11 net deferred tax at December 31, 2011, and the actual PISCC and electric O&M
12 net deferred tax activity and balance from January 1, 2012, through December 31,
13 2012.

14 **Q. PLEASE EXPLAIN SCHEDULE 6 FOR ELECTRIC.**

15 A. Schedule 6 provides the calculation of the deferred taxes on liberalized
16 depreciation for plant placed in service during vintage years 2008, 2009,
17 2010,2011and 2012. These deferred taxes are calculated on the electric-related
18 SmartGrid plant in service since the program's inception.

19 **Q. PLEASE EXPLAIN SCHEDULE 7 FOR ELECTRIC.**

20 A. Schedule 7 provides the calculation of the pre-tax weighted average cost of capital
21 for the return component of the Rider DR-IM revenue requirement calculation.
22 The capital structure and the capital cost rates are from the most recently
23 approved electric distribution rate case, Case No. 12-1682-EL-AIR.

Q. PLEASE EXPLAIN SCHEDULE 8 FOR ELECTRIC.

A. Schedule 8 provides the calculation of the annualized depreciation expense associated with additions, based on actual SmartGrid plant additions from the beginning of the program through December 31, 2012, using currently approved depreciation accrual rates.

Q. PLEASE EXPLAIN SCHEDULE 9 FOR ELECTRIC.

A. Schedule 9 provides a calculation of the annualized amortization of the electric PISCC accrued from the beginning of the program through December 31, 2012. The electric-related PISCC Regulatory Assets by account are in agreement with those provided on Schedule 5 and the amortization calculations use the currently approved average service lives.

Q. PLEASE EXPLAIN SCHEDULE 10 FOR ELECTRIC.

A. Schedule 10 is a schedule providing the calculation of the regulatory asset associated with the deferral of O&M and depreciation costs pursuant to the stipulation approved in the ESP Case.

Q. PLEASE EXPLAIN SCHEDULE 11 FOR ELECTRIC.

A. Schedule 11 provides the calculation of the annualized property tax expense based on actual additions to electric-related SmartGrid plant in service from the beginning of the program through December 31, 2012. This calculation follows the process used in Duke Energy Ohio's Annual Report to the Ohio Department of Taxation to determine the Net Property Valuation and uses the latest known average electric property tax rate per $1,000 of valuation.

1

2 **Q. PLEASE EXPLAIN SCHEDULE 12 FOR ELECTRIC.**

3 A. Schedule 12 provides for the savings and reduction agreed to in the Order in Case
4 No. 10-2326. In the Order the Company agreed to include $4.77 million in
5 savings in the 2012 revenue requirement along with a $1.47 million reduction in
6 the revenue requirement for deferred recovery.

7 **Q. PLEASE EXPLAIN SCHEDULE 13 FOR ELECTRIC.**

8 A. Schedule 13 provides a calculation of the new Rider DR-IM monthly charge by
9 rate class. Pursuant to the Stipulation approved in Case No. 08-920-EL-SSO, *et*
10 *al.*, 85% of the revenue requirement is allocable to residential customers and the
11 remaining 15% is allocable to non-residential customers. The allocated revenue
12 requirement is then divided by the number of bills (*i.e.*, customers x 12) for the
13 residential and non-residential rate classes. The result is a per bill charge of
14 $4.91for all residential customers and a per bill charge of $ 7.30 for all non-
15 residential customers. The Company excluded all lighting customers from Rider
16 DR-IM.

17 **Q. PLEASE EXPLAIN SCHEDULE 14 FOR ELECTRIC.**

18 A. Schedule 14 provides a cumulative total of the stimulus funding that has been
19 invoiced thru December 2012.

20 **Q. ARE THERE ANY OTHER PROVISIONS OF THE STIPULATION**
21 **REACHED IN CASE NO. 08-920-EL-SSO, *ET AL.*, THAT ARE**
22 **RELEVANT TO THE RIDER DR-IM RATE CALCULATION?**

A. Yes. The parties in the ESP proceeding agreed to impose a cap on the Rider DR-IM charge for residential customers. The cap represents the maximum monthly per meter rate that can be charged to residential customers for a given year. The agreed-to caps for residential Rider DR-IM charges are as follows:

Year	Cap
2009	$0.50
2010	$1.50
2011	$3.25
2012	$5.25
2013	$5.50

Q. DO YOU HAVE AN OPINION REGARDING WHETHER DUKE ENERGY OHIO'S REQUEST FOR NEW RIDER DR-IM RATES IS REASONABLE?

A. Yes.

Q. PLEASE STATE YOUR OPINION.

A. Duke Energy Ohio's rate request is fair and reasonable. I believe that the costs of service are properly allocated to customer classes and the rate design was properly performed in accordance with the terms and conditions of the Stipulation approved in Case No. 08-920-EL-SSO, *et al.* The proposed Rider DR-IM rates are within the rate caps established in the Stipulation for the fifth year of the rider.

V. RIDER AU

Q. PLEASE PROVIDE A GENERAL OVERVIEW OF THE REVENUE REQUIREMENT CALCULATION FOR RIDER AU.

A. The schedules provide extensive detail of the revenue requirement calculations for Rider AU starting with support for the rate base component and pre-tax rate of return, followed by details for expenses to be included. As discussed earlier in my

1 testimony, many of the schedules provide support for the credit revenue requirement
2 applicable to the Company's 8,795gas-only customers and that calculation is
3 summarized on Schedule 1A. Finally, the schedules show the calculation of the
4 proposed monthly rates for Rider AU applicable to the rate classes and the monthly
5 credit for the gas-only customers.

6 **Q. PLEASE EXPLAIN HOW PENDING CASE NO. 12-1685-GA-AIR**
7 **IMPACTS THIS CASE?**

8 A. In our filing in Case No. 12-1685-GA-AIR, we have asked that the AU investment
9 as of the date certain, March 31, 2012, be included in base rates. There was a partial
10 settlement reached in the case and filed on April 2, 2013. For this filing we assume
11 that the AU investment as of March 31, 2012 will be included in our base rates and
12 therefore, have not included any investment prior to this date in our application.
13 This filing is contingent on the Commission's ultimate approval of the AU
14 investment as of March 31, 2012 in base rates.

15 **Q. PLEASE EXPLAIN SCHEDULE 1 FOR GAS.**

16 A. Schedule 1, summarizes the annualized revenue requirement for Duke Energy
17 Ohio's Rider AU rates. The underlying rate base reflects the net balance of the
18 Company's investment in SmartGrid allocable to its gas distribution business as of
19 December 31, 2012. The rate base shown is incremental to amounts in current rates.
20 The information on this schedule is supported in Schedules 2 through 13. Schedule
21 1A summarizes the credit to the annualized revenue requirement for the Company's
22 gas only customers.

23 **Q. PLEASE EXPLAIN SCHEDULE 2 FOR GAS.**

1 A. Schedule 2 provides the actual plant additions by month from April 1, 2012, through
2 December 31, 2012.
3 **Q. PLEASE EXPLAIN SCHEDULE 3 FOR GAS.**
4 A. Schedule 3 provides the actual provision for depreciation by month from April 1,
5 2012, through December 31, 2012, to arrive at the balance as of December 31, 2012.
6 **Q. PLEASE EXPLAIN SCHEDULE 4 FOR GAS.**
7 A. Schedule 4 provides the PISCC activity by month from April 1, 2012, through
8 December 31, 2012, to arrive at the balance as of December 31, 2012. This
9 schedule also provides actual PISCC amortization by month from January 1, 2011,
10 through December 31, 2011, to calculate the balance at December 31, 2011. The
11 net gas PISCC regulatory asset for the periods is also provided.
12 **Q. PLEASE EXPLAIN SCHEDULE 5 FOR GAS.**
13 A. Schedule 5 provides the adjusted balance of gas PISCC and O&M net deferred
14 tax activity and from April 1, 2012, through December 31, 2012.
15 **Q. PLEASE EXPLAIN SCHEDULE 6 FOR GAS.**
16 A. Schedule 6 provides the calculation of the deferred taxes on liberalized
17 depreciation for plant placed into service after March 31, 2012. These deferred
18 taxes are calculated on the gas-related SmartGrid plant in service since the
19 program's inception.
20 **Q. PLEASE EXPLAIN SCHEDULE 7 FOR GAS.**
21 A. Schedule 7 provides the calculation of the pre-tax weighted average cost of capital
22 for the return component of the Rider AU revenue requirement calculation. The

capital structure and the capital cost rates are from the most recently approved gas distribution rate case, Case No. 07-589-GA-AIR, *et al.*

Q. PLEASE EXPLAIN SCHEDULE 8 FOR GAS.

A. Schedule 8 provides the calculation of the annualized depreciation expense associated with additions, based on actual gas-related SmartGrid plant additions from April 1, 2012 through December 31, 2012, using currently approved depreciation accrual rates.

Q. PLEASE EXPLAIN SCHEDULE 9 FOR GAS.

A. Schedule 9 provides a calculation of the annualized amortization of the PISCC accrued from April 1, 2012 through December 31, 2012. The gas-related PISCC Regulatory Assets by account are in agreement with those provided on Schedule 5 and the amortization calculations use the currently approved average service lives.

Q. PLEASE EXPLAIN SCHEDULE 10 FOR GAS.

A. Schedule 10 is a schedule providing the calculation of the regulatory asset associated with the deferral of O&M and depreciation costs pursuant to the Stipulation approved in the prior filing, Case No. 09-543-GE-RDR.

Q. PLEASE EXPLAIN SCHEDULE 11 FOR GAS.

A. Schedule 11 provides the calculation of the annualized property tax expense based on actual additions to gas-related SmartGrid plant in service from April 1, 2012 through December 31, 2012. This calculation follows the process used in Duke Energy Ohio's Annual Report to the Ohio Department of Taxation to determine the Net Property Valuation and uses the latest known average gas property tax rate per $1,000 of valuation.

1 **Q. PLEASE EXPLAIN SCHEDULE 12 FOR GAS.**

2 A. Schedule 12 provides for the savings and reduction agreed to in our Order in Case
3 No.10-2326-GE-RDR. In the Order the Company agreed to a $2,026,000 in
4 savings in the 2012 revenue requirements. We have included the amount of
5 $2,026,000 in our base rates in Case No. 12-1685-GA-AIR, therefore there is no
6 savings reduction in this filing.

7 **Q. PLEASE EXPLAIN SCHEDULE 13 FOR GAS.**

8 A. Schedule 13 provides the monthly detail from January 2012 through March 31, 2013
9 of the Gas Furnace Program costs. The monthly expense has been separated
10 between incentive payments and administrative costs.

11 **Q. PLEASE EXPLAIN SCHEDULE 14 FOR GAS.**

12 A. Schedule 14 provides the new Rider AU monthly charge per customer. Because
13 the Company is proposing to allocate the Rider AU revenue requirement based on
14 number of bills (*i.e.*, customers x 12), the Rider AU monthly rate shown on
15 Schedule 13 is for all customers. The allocated revenue requirement is divided by
16 the total number of bills. The result is a per bill charge of $1.48 for Rider AU for
17 all customers. The per bill credit amount of $.70 for the Company's gas only
18 customers is also calculated on this schedule.

19 **Q. DO YOU HAVE AN OPINION REGARDING WHETHER DUKE**
20 **ENERGY OHIO'S REQUEST FOR NEW RIDER AU RATES IS**
21 **REASONABLE?**

22 A. Yes.

23 **Q. PLEASE STATE YOUR OPINION.**

1 A. Duke Energy Ohio's rate request is fair and reasonable. The methodology is
2 essentially consistent with the methodology for electric Rider DR-IM, which
3 follows the terms and conditions of the Stipulation approved in Case No. 08-920-
4 EL-SSO, *et al.*

VI. OTHER ISSUES

5 **Q. HOW WILL FUTURE RATE CASES IMPACT THE FILINGS OF RIDER**
6 **DR-IM AND RIDER AU?**

7 A. Both riders will continue until full deployment. Per our Order in Case No. 10-2326-
8 GE-RDR, the Company committed to maintain Rider DR-IM as the means to
9 recover electric SmartGrid investment through the year in which full deployment
10 occurs. In the same Order the Company agreed to a guaranteed level of savings
11 related to the gas portion of SmartGrid in our next base case. In Case No 12-1685-
12 GA-AIR the Company rolled in the gas SmartGrid investment in base rates as of the
13 date certain of March 31, 2012, and then continue Rider AU for investment after the
14 date certain similar to our process for Rider AMRP.

VII. CONCLUSION

15 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

16 A. Yes.

Duke Energy Ohio
Calculation of Rider DR-IM
Case No. 13-1141
Attachment PAL-1
Index of Schedules

Duke Energy Ohio
Calculation of Rider DR-IM

Revenue Requirement

Line No.			Balance 12/31/11	Adjustment	Adjusted Balance 12/31/11	Activity 2012	Cumulative thru 12/31/12	Reference
	Return on Investment							
	Plant In-Service							
1	Additions		$125,173,800	$0	$125,173,800	$72,581,992	$197,755,792	Schedule 2
2	Total Plant in-Service		125,173,800	0	125,173,800	72,581,992	197,755,792	
	Less: Accumulation Provision for Depreciation							
3	Depreciation Expense		9,351,060	0	9,351,060	8,880,980	18,232,040	Schedule 3
4	Total Accumulated Provision for Depreciation		9,351,060	0	9,351,060	8,880,980	18,232,040	
5	Net Regulatory Asset--Post In-Service Carrying Cost		8,633,778	0	8,633,778	7,408,684	16,042,462	Schedule 4
6	Net Deferred Tax Balance--PISCC, Deferred Depreciation & CC and Deferred O&M & CC		(9,749,793)	523,795	(9,225,998)	(5,347,886)	(14,573,884)	Schedule 5
7	Deferred Taxes on Liberalized Depreciation		(36,120,777)	0	(36,120,777)	(12,234,703)	(47,355,480)	Schedule 6
8	Net Rate Base		79,585,948	523,795	80,109,742	53,527,017	133,636,760	
9	Approved Pre-tax Rate of Return					10.72%	10.72%	Schedule 7
10	Annualized Return on Rate Base				5,608,717	5,736,096	14,325,861	
	Operating Expenses							
11	Annualized Provision for Depreciation For Additions					11,462,728	11,462,728	Schedule 8
12	Annualized Amortization of PISCC					1,006,213	1,006,213	Schedule 9
13	Deferred O&M Expense and Carrying Costs					12,733,820	12,733,820	Schedule 10
14	Annualized Property Tax Expense					9,127,943	9,127,943	Schedule 11
15	Reduction in Operation & Maintenance Expense					(8,240,000)	(8,240,000)	Schedule 12
16	**Annualized Revenue Requirement - Subtotal**					33,528,780	42,416,525	
17	Commerical Activity Tax Gross Up	0.26063%					110,570	
18	**Annualized Revenue Requirement**						$42,527,095	

Calculation of Rider DRAM

Plant Additions by Month

Line No.		Plant Account	Balance at 12/31/2011	Adjustment (1)	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012
	Distribution Plant																
1	Station Equipment	362.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	Major Equipment	363.00	2,982,410	0	2,982,410	82,074,397	82,103,926	82,103,926	82,103,926	82,103,926	82,168,646	82,366,846	82,366,877	82,670,150	82,690,057	82,802,746	82,811,740
3	Distribution Station Equipment	364.00	2,026,[illegible]	0	2,026,[illegible]	52,463,147	52,670,347	52,[illegible]	53,268,612	53,[illegible]	53,[illegible]	53,[illegible]	53,833,902	53,[illegible]	53,940,223	54,314,[illegible]	54,591,049
4	Poles, Towers and Fixtures	365.00	217,[illegible]	0	217,[illegible]	3,863,[illegible]	4,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5,094,155	5,[illegible]	[illegible]	[illegible]	[illegible]
5	Underground Conduit & Devices	366.00	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	Underground Conductors & Devices	367.00	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	Line Transformers	368.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	Services - Overhead	369.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	Services - Underground	369.01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	Meters	370.00	[illegible]	0	[illegible]	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	Leased AMR Meters	370.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Communication Equipment - Electric	397.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	Electronic Data Processing - Electric	399.01	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	Total		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Intangible Investment																Total Activity
15	Station Equipment	362.00				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	Major Equipment	363.00				[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	Distribution Station Equipment	364.00				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	Poles, Towers and Fixtures	365.00				[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	Underground Conduit & Devices	366.00				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	Underground Conductors & Devices	367.00				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	Electronic Data Processing Equip	399.01				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	Communication Equipment - Electric	397.00				[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]
23	Meters	370.00				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	Leased AMR Meters	370.01				0	0	0	0	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	[illegible]
25	Communication Equipment - Electric	397.00				0	0	[illegible]	0	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	Electronic Data Processing Equipment	399.01				0	0	0	0	0	0	0	0	0	0	0	0
27	Total					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Note:
(1) [illegible]

	Depreciation Reserve Year Additions																
28	Station Equipment	362.00	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	Major Equipment	363.00	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	Distribution Station Equipment	364.00	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	Poles, Towers and Fixtures	365.00	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32	Underground Conduit & Devices	366.00	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
33	Underground Conductors & Devices	367.00	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
34	Electronic Data Processing Equip	399.01	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
35	Communication Equipment - Electric	397.00	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
36	Meters	370.00	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
37	Leased AMR Meters	370.01	0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	Communication Equipment - Electric	397.00	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
39	Electronic Data Processing Equipment	399.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Total		0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Duke Energy Ohio
Calculation of Rider DR-IM

Accumulated Provision for Depreciation

Line No.		Plant Account	Balance at 12/31/2011	Adjustment (1)	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Total Activity
	Intangible																	
1	Station Equipment	36[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
2	Poles, Towers and Fixtures	36[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
3	Distribution Station Equipment	36[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
4	Poles, Towers and Fixtures	36[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
5	Distribution Overhead Conductors & Devices	36[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
6	Underground Conduit	37[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
7	Underground Conductors & Devices	37[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
8	Overhead Line Equipment Electric	37[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
9	Intangible Electric	10[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
10	Leased AMI Meters	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
11	Communication Equipment Common	19[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
12	Electronic Data Processing Computer	19[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
13	Total		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	Intangible																	
14	Station Equipment	36[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
15	Major Equipment	36[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
16	Distribution Station Equipment	36[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
17	Poles, Towers and Fixtures	36[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
18	Distribution Overhead Conductor & Devices	36[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
19	Leased Meters	37[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
20	Electronic Data Processing Equip	19[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
21	Communication Equipment Electric	39[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
22	Intangible Electric	30[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
23	Leased AMI Meters	1[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
24	Communication Equipment Common	19[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
25	Electronic Data Processing Common	19[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$[illegible]
26	Total					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

			Depreciation Percent
	Intangible		
27	Station Equipment	36[illegible]	[illegible]
28	Major Equipment	36[illegible]	[illegible]
29	Distribution Station Equipment	36[illegible]	[illegible]
30	Poles, Towers and Fixtures	36[illegible]	[illegible]
31	Distribution Overhead Conductor & Devices	36[illegible]	[illegible]
32	Leased Meters	37[illegible]	[illegible]
33	Electronic Data Processing Equip	19[illegible]	[illegible]
34	Communication Equipment Electric	39[illegible]	[illegible]
35	Intangible Electric	30[illegible]	[illegible]
36	Leased AMI Meters	[illegible]	[illegible]
37	Communication Equipment Common	19[illegible]	[illegible]

Duke Energy Ohio
Calculation of Rider DR-IM

Net Regulatory Asset – Post In Service Carrying Cost

Line No.	Account	Description	Balance at 12/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Balance at 12/31/2012
		Regulatory Asset: Deferral																
1	182.3x	Station Equipment	$1,112,954		$1,112,954	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
2	182.3x	Major Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
3	182.3x	Distribution Station Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
4	182.3x	Poles, Towers and Fixtures	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
5	182.3x	Distribution Conductor & Devices	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
6	182.3x	Leased Meters	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
7	182.3x	Electronic Data Processing Equip	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
8	182.3x	Communication Equipment - Electric	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
9	182.3x	Intangible Electric	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
10	182.3x	Leased AMR Meters	$-		$-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	182.3x	Communication Equipment - Common	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
12	182.3x	Electronic Data Processing Common	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
13		Total	$[illegible]	$0	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
		Reg Asset Amortization																
14	182.3x	Station Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
15	182.3x	Major Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
16	182.3x	Distribution Station Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
17	182.3x	Poles, Towers and Fixtures	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
18	182.3x	Distribution Conductor & Devices	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
19	182.3x	Leased Meters	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
20	182.3x	Electronic Data Processing Equip	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
21	182.3x	Communication Equipment - Electric	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
22	182.3x	Intangible Electric	$0		$0	$0	$0	$0	$0	$0	$0	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
23	182.3x	Leased AMR Meters	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	182.3x	Communication Equipment - Common	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
25	182.3x	Electronic Data Processing Common	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
26		Total	$[illegible]	$0	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
		Regulatory Asset-Net																
27	182.3x	Station Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
28	182.3x	Major Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
29	182.3x	Distribution Station Equipment	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
30	182.3x	Poles, Towers and Fixtures	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
31	182.3x	Distribution Conductor & Devices	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
32	182.3x	Leased Meters	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
33	182.3x	Electronic Data Processing Equip	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
34	182.3x	Communication Equipment - Electric	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
35	182.3x	Intangible Electric	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
36	182.3x	Leased AMR Meters	$0		$0	$0	$0	$0	$0	$0	$0	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
37	182.3x	Communication Equipment - Common	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
38	182.3x	Electronic Data Processing Common	$[illegible]		$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
39		Total	$[illegible]	$0	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]
		Rate of Return on Rate Base	6.45%															
		Rate of Return on Intangible Stage (annualized)	2008	2009	2010													
40	182.3x	Station Equipment		$[illegible]	$[illegible]													
41	182.3x	Major Equipment		$[illegible]	$[illegible]													
42	182.3x	Distribution Station Equipment		$[illegible]	$[illegible]													
43	182.3x	Poles, Towers and Fixtures			$[illegible]													
44	182.3x	Distribution Conductor & Devices		$[illegible]	$[illegible]													
45	182.3x	Leased Meters	$[illegible]	$[illegible]	$[illegible]													
46	182.3x	Electronic Data Processing Equip			$[illegible]													
47	182.3x	Communication Equipment - Electric	$[illegible]	$[illegible]	$[illegible]													
48	182.3x	Intangible Electric			$[illegible]													
49	182.3x	Leased AMR Meters																
50	182.3x	Communication Equipment - Common	$[illegible]	$[illegible]	$[illegible]													
51	182.3x	Electronic Data Processing Common	$[illegible]	$[illegible]	$[illegible]													
		Total	$[illegible]	$[illegible]	$[illegible]													

Duke Energy Ohio
Calculation of Rider DR-IM

Net Deferred Tax Balance -- PISCC, Deferred Deprec and Deferred O&M

Line No.		Balance at 12/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012
	Net Deferred Tax Balance - PISCC															
1	Beginning Balance	$8,[illegible]	$0	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]
2	Monthly Activity				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	Ending Balance	$8,[illegible]	$0	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]	$8,[illegible]
4	Tax Rate	35.00%	0.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
5	Cumulative ADIT @ 35%	$3,[illegible]	$0	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]	($3,[illegible]
	Net Deferred Tax Balance - Deferred Depreciation and Carrying Charges															
6	Beginning Balance	$4,[illegible]	$0	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]
7	Monthly Activity				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	Ending Balance	$4,[illegible]	$0	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]	$4,[illegible]
9	Tax Rate	35.00%	0.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
10	Cumulative ADIT @ 35%	($1,[illegible]	$0	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]	($1,[illegible]
	Net Deferred Tax Balance - Deferred O&M and Carrying Costs															
11	Beginning Balance	$16,[illegible]	($1,[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]
12	Monthly Activity				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	Ending Balance	$1[illegible]	($1,[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]	$1[illegible]
14	Tax Rate	35.00%	0.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
15	Cumulative ADIT @ 35%	($5,[illegible]	$[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]	($5,[illegible]
															Total	($14,[illegible]
	16 Deferred Tax Balance at Jan 10	[illegible]														[illegible]
	Gain/(Loss) Sale on Shares Jan/Feb 10	[illegible]														[illegible]
		[illegible]														[illegible]

Duke Energy Ohio
Calculation of Rider DR-IM

Deferred Taxes on Liberalized Depreciation

Line No.		Tax Year 2008	Tax Year 2009			Tax Year 2010			
		Vintage 2008	Vintage 2008	Vintage 2009		Vintage 2008	Vintage 2009	Vintage 2010	
		Total			Total Tax Year 2009				Total Tax Year 2010
1	Total Plant in Service	919,847,993	919,847,993	9,046,854	928,894,847	919,847,993	910,736,164	935,223,982	3,765,808,139
2	Book to Tax Basis Adjustments	0	0	0	0	0	0	0	0
	Tax Base in Service subject to:								
3	Bonus Depreciation - 50%	19,647,993	19,647,993	9,046,854	28,694,847	19,647,993	10,736,164	23,702,874	54,087,031
4	Bonus Depreciation - 100%	0	0	0	0	0	0	11,521,108	11,521,108
5	MACRS	0	0	0	0	0	0	0	0
6	Total Tax Depreciation Base	19,647,993	19,647,993	9,046,854	28,694,847	19,647,993	10,736,164	35,223,982	65,608,139
7	Tax Depreciation - MACRS	1,179,950	2,055,869	376,470	2,432,339	1,530,523	918,465	1,709,352	4,158,340
8	Tax Depreciation - Bonus - 50%	9,825,997	0	4,523,427	4,523,427	0	1,171,403	11,851,437	13,022,840
9	Tax Depreciation - Bonus - 100%	0	0	0	0	0	0	11,521,108	11,521,108
10	Total Tax Depreciation	11,005,947	2,055,869	4,899,897	6,955,766	1,530,523	2,089,868	25,081,897	28,702,288
	Book Depreciation								
11	Total Book Depreciation	825,398	1,117,504	122,412	1,239,916	1,117,504	348,044	1,114,612	2,580,160
12	Less: Book Depr on AFUDC Equity	0	0	0	0	0	0	0	0
13		0	0	0	0	0	0	0	0
14	Net Book Depreciation	825,398	1,117,504	122,412	1,239,916	1,117,504	348,044	1,114,612	2,580,160
15	Tax Depreciation in Excess of Book Depreciation	10,179,549	938,365	4,777,485	5,715,850	413,019	1,741,824	23,967,285	26,122,128
16	Federal Deferred Taxes @ 35.00%	($3,772,492)	($328,428)	($1,672,120)	($2,000,548)	($144,557)	($609,638)	($8,388,550)	($9,142,745)
17	Federal Deferral Rate	35.00%			35.00%				35.00%

Duke Energy Ohio
Calculation of Rider DR-IM

Deferred Taxes on Liberalized Depreciation

Line No.		Tax Year 2011 Vintage 2008	Vintage 2009	Vintage 2010	Vintage 2011	Total Tax Year 2011
1	Total Plant in Service	$19,647,993	$10,736,164	$35,223,982	$59,565,662	$125,173,801
2	Book to Tax Basis Adjustments	0	0	0	0	0
	Tax Base in-Service subject to					
3	Bonus Depreciation - 50%	19,647,993	10,736,164	23,702,874	2,659,466	56,746,496
4	Bonus Depreciation - 100%	0	0	11,521,108	56,906,197	68,427,305
5	MACRS	0	0	0	0	0
6	Total Tax Depreciation Base	19,647,993	10,736,164	35,223,982	59,565,662	125,173,801
7	Tax Depreciation - MACRS	1,146,028	666,147	2,722,680	262,350	4,798,205
8	Tax Depreciation - Bonus - 50%	0	0	0	1,329,733	1,329,733
9	Tax Depreciation - Bonus - 100%	0	0	0	56,906,197	56,906,197
10	Total Tax Depreciation	1,146,028	666,147	2,722,680	58,498,280	63,034,135
	Book Depreciation					
11	Total Book Depreciation	1,117,504	348,044	1,114,612	2,725,426	5,305,586
12	Less: Book Depr on AFUDC Equity	0	0	0	0	0
13		0	0	0	0	0
14	Net Book Depreciation	1,117,504	348,044	1,114,612	2,725,426	5,305,586
15	Tax Depreciation in Excess of Book Depreciation	28,524	318,103	1,608,068	55,772,854	57,728,549
16	Federal Deferred Taxes @ 35.00%	($9,983)	($111,336)	($562,824)	($19,520,849)	($20,204,992)
17	Federal Deferral Rate					35.00%

Duke Energy Ohio
Calculation of Rider DR-IM

Deferred Taxes on Liberalized Depreciation

Line No.		Tax Year 2012 (part 1 of 3)					
		Vintage 2008			Vintage 2009		
		7-Year MACRS	10-Year MACRS	Total Vintage 2008	7-Year MACRS	10-Year MACRS	Total Vintage 2009
1	Total Plant in Service	$13,053,027	$6,594,966	$19,647,993	$1,159,563	$9,576,601	$10,736,164
2	Book to Tax Basis Adjustments	0	0	0	0	0	0
	Tax Base In-Service subject to:						
3	Bonus Depreciation - 50%	13,053,027	6,594,966	19,647,993	1,159,563	9,576,601	10,736,164
4	Bonus Depreciation - 100%	0	0	0	0	0	0
5	MACRS	0	0	0	0	0	0
6	Total Tax Depreciation Base	13,053,027	6,594,966	19,647,993	1,159,563	9,576,601	10,736,164
7	Tax Depreciation - MACRS	582,491	288,200	870,691	72,444	479,979	552,423
8	Tax Depreciation - Bonus - 50%	0	0	0	0	0	0
9	Tax Depreciation - Bonus - 100%						
10	Total Tax Depreciation	582,491	288,200	870,691	72,444	479,979	552,423
	Book Depreciation						
11	Total Book Depreciation	870,637	339,252	1,209,889	77,343	307,161	384,504
12	Less: Book Depr on AFUDC Equity	0	0	0	0	0	0
13		0	0	0	0	0	0
14	Net Book Depreciation	870,637	339,252	1,209,889	77,343	307,161	384,504
15	Tax Depreciation in Excess of Book Depreciation	(288,146)	(51,052)	(339,198)	(4,899)	172,818	167,919
16	Federal Deferred Taxes @ 35.00%	$100,851	$17,868	$118,719	$1,715	($60,486)	($58,771)
17	Federal Deferral Rate			35.00%			35.00%

Duke Energy Ohio
Calculation of Rider DR-IM

Deferred Taxes on Liberalized Depreciation

Line No.		Tax Year 2012 (part 2 of 3)										
		Vintage 2010					Vintage 2011					
		3-Year MACRS	5-Year MACRS	7-Year MACRS	10-Year MACRS	Total Vintage 2010	3-Year MACRS	5-Year MACRS	7-Year MACRS	10-Year MACRS	20-Year MACRS	Total Vintage 2011
1	Total Plant In-Service	$4,075,034	$670,020	$7,436,711	$23,042,217	$35,223,982	$1,327,474	$407,671	$26,611,153	$30,369,279	$850,086	$59,565,664
2	Book to Tax Basis Adjustments	0	0	0	0	0	0	0	0	0		0
	Tax Base In-Service subject to:											
3	Bonus Depreciation - 50%	4,075,034	670,020	7,436,711	11,521,109	23,702,874	1,141,628	268,064	0	1,214,771	34,003	2,659,466
4	Bonus Depreciation - 100%	0	0	0	11,521,108	11,521,108	185,846	139,607	26,611,153	29,154,509	816,083	56,906,198
5	MACRS	0	0			0	0	0	0			0
6	Total Tax Depreciation Base	4,075,034	670,020	7,436,711	23,042,217	35,223,982	1,327,474	407,671	26,611,153	30,369,280	850,086	59,565,664
7	Tax Depreciation - MACRS	301,858	64,322	650,415	679,400	1,695,995	253,698	43,050	0	84,275	1,227	382,251
8	Tax Depreciation - Bonus - 50%	0	0	0	0	0	0	0	0	0	0	0
9	Tax Depreciation - Bonus - 100%			0	0		0	0	0	0	0	0
10	Total Tax Depreciation	301,858	64,322	650,415	679,400	1,695,995	253,698	43,050	0	84,275	1,227	382,251
	Book Depreciation											
11	Total Book Depreciation	815,007	134,004	496,029	857,515	2,302,554	265,495	81,534	1,774,964	1,178,734	18,957	3,319,684
12	Less: Book Depr on AFUDC Equity	0	0	0	0	0	0	0	0	0	0	0
13		0	0	0								
14	Net Book Depreciation	815,007	134,004	496,029	857,515	2,302,554	265,495	81,534	1,774,964	1,178,734	18,957	3,319,684
15	Tax Depreciation in Excess of book Depreciation	(513,149)	(69,682)	154,386	(178,115)	(606,560)	(11,797)	(38,484)	(1,774,964)	(1,094,459)	(17,730)	(2,937,433)
16	Federal Deferred Taxes @ 35.00%	$179,602	$24,389	($54,035)	$62,340	$212,296	$4,129	$13,469	$621,237	$383,061	$6,205	$1,028,101
17	Federal Deferral Rate				35.00%							35.00%

Duke Energy Ohio
Calculation of Rider DR-IM

Deferred Taxes on Liberalized Depreciation

Line No.		Tax Year 2012 (part 3 of 3) Vintage 2012 3-Year MACRS	5 Year MACRS	7-Year MACRS	10-Year MACRS	20 Year MACRS	Total Vintage 2012	Total Tax Year 2012
1	Total Plant In Service	$259,091	$99,880	$37,832,351	$34,383,425	$8,155	$72,581,902	$197,755,705
2	Book to Tax Basis Adjustments	0	0	0	0		0	0
	Tax Base In Service subject to:							
3	Bonus Depreciation - 50%	259,091	99,880	37,832,351	34,383,425	8,155	72,581,902	129,328,399
4	Bonus Depreciation - 100%	0	0	0	0	0	0	68,427,306
5	MACRS	0	0	0	0	0	0	0
6	Total Tax Depreciation Base	259,091	99,880	37,832,351	34,383,425	8,155	72,581,902	197,755,705
7	Tax Depreciation - MACRS	46,178	9,888	2,702,365	1,289,678	153	4,044,962	7,546,921
8	Tax Depreciation - Bonus - 50%	129,546	49,440	18,916,176	17,191,713	4,079	36,290,951	36,290,951
9	Tax Depreciation - Bonus - 100%	0	0	0	0	0	0	0
10	Total Tax Depreciation	175,723	59,328	21,618,540	18,481,391	4,230	40,335,913	43,837,872
	Book Depreciation							
11	Total Book Depreciation	183,721	21,612	878,007	579,381	1,628	1,664,349	8,390,980
12	Less: Book Depr on AFUDC Equity	0	0	0	0	0	0	0
13								
14	Net Book Depreciation	183,721	21,612	878,007	579,381	1,628	1,664,349	8,390,980
15	Tax Depreciation In Excess of Book Depreciation	(10,998)	37,716	20,740,534	17,901,710	2,602	38,671,564	34,996,292
16	Federal Deferred Taxes @ 35.00%	$3,849	($13,201)	($7,259,187)	($6,265,598)	($911)	($13,535,048)	($12,234,703)
17	Federal Deferral Rate						35.00%	

Total Deferred Tax Balance 47,355,480

Duke Energy Ohio
Calculation of Rider DR-IM

Approved Rate of Return [a]

Line No.		Balance at 3/31/2012	Percent of Total [a]	Rate	Weighted Cost	Tax Gross Up Factor [b]	Pre-Tax Rate of Return
1	Long-term debt	$2,532,502,631	46.70%	5.32%	2.48%	1.0092192	2.51%
2	Preferred stock	-	0.00%		0.00%	1.5650023	0.00%
3	Common equity	2,890,859,857	53.30%	9.84%	5.25%	1.5650023	8.22%
4	Total Capitalization	$5,423,362,488	100.00%		7.73%		10.72%
5	Operating Revenues			100.000%			
6	Less: Uncollectible Accounts		0.5425%				
7	City of Cincinnati Franchise Tax		0.1100%				
8	Commercial Activities Tax		0.2600%	0.9135%			
9	Income before Income Tax			99.087%	1.0092192	Debt Gross Up	
10	State and Municipal Income Tax			0.783%			
11	Income before Federal Income Tax			98.304%			
12	Federal Income Tax (35% x 98.304%)			34.406%			
13	Operating Income Percentage			63.898%			
14	Gross Revenue Conversion Factor (100%/63.898%)			1.5650023			

Notes: [a] Per Stipulation approved in Case No. 12-1682-EL-AIR.
[b] Per Schedule A-2 in the Staff Report of Investigation in Case No. 12-1682-EL-AIR.

Duke Energy Ohio
Calculation of Rider DR-IM

Annualized Depreciation Expense onf Plant in Service at Year End

Line No.		Plant Account	Balance at 12/31/2012	Depreciation Rate-Calendar Year 2013 Effective 01/01/13 thru 5/1/2013	Effective 05/01/13	Combined	Annualized Depreciation
	Depreciable Plant Basis						
1	Intangible Electric (1)	30300	$4,186,912	20.00%	20.00%	20.00%	$837,382
2	Station Equipment	36200	$21,107,609	2.00%	1.92%	1.95%	$411,598
3	Major Equipment	36202	2,873,492	2.18%	1.92%	2.01%	$57,757
4	Distribution Station Equipment	36305	4,551,045	5.00%	5.00%	5.00%	$227,552
5	Distribution OH Conduct & Devises	36500	19,030,143	2.50%	2.80%	2.70%	$513,814
6	Poles, Towers and Fixtures	36400	929,538	2.23%	2.40%	2.34%	$21,751
7	Leased Meters	37002	54,516,600	5.10%	6.67%	6.15%	$3,352,771
8	Electronic Data Processing Equip	39101	1,189,379	20.00%	20.00%	20.00%	$237,876
9	Communication Equipment Electric	39700	65,478,280	6.67%	6.67%	6.67%	$4,367,401
10	Leased AMI Meters	17001	1,230,621	5.10%	6.67%	6.15%	$75,683
11	Electronic Data Processing Common	19101	61,445	20.00%	20.00%	20.00%	$12,289
12	Communication Equipment Common	19700	20,192,709	6.67%	6.67%	6.67%	$1,346,854
13	Total		$195,347,773				$11,452,728

(1) Excludes Progects ECSPH1B and ECSPH1 which were retired in January 2013.

ECSPH1B	221,044
ECSPH1	2,186,885
Total	2,407,929

Duke Energy Ohio
Calculation of Rider DR-IM

Annualized Amortization of PISCC

Line No.		Balance at 12/31/2012	Amortization Rate	Annualized Amortization
	Regulatory Asset Deferrals			
1	Station Equipment	$2,018,432	1.64%	$33,102
2	Major Equipment	$263,568	1.64%	$4,323
3	Distribution Station Equipment	$334,800	5.00%	$16,740
4	Poles, Towers and Fixtures	$84,597	1.92%	$1,624
5	Distribution OH Conduct & Devises	$1,454,020	1.81%	$26,318
6	Leased Meters	$4,941,764	6.67%	$329,616
7	Electronic Data Processing Equip	$110,956	20.00%	$22,191
8	Communication Equipment Electric	$4,771,769	6.67%	$318,277
9	Intangible Electric	$719,619	20.00%	$143,924
10	Leased AMI Meters	$7,867	6.67%	$525
11	Communication Equipment Common	$1,622,840	6.67%	$108,243
12	Electronic Data Processing Common	$6,650	20.00%	$1,330
13	Total	$16,336,882		$1,006,213

Duke Energy Ohio
Calculation of Rider DR-IM

Regulatory Asset – Deferred O&M Expenses, Carrying Cost and Amortization

Line No	Account	Description	Balance at 12/31/2011	Adjustment	Adjusted Balance 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Balance at 12/31/2012
		Regulatory Asset - Deferred O&M Expenses																
1	182.3x	Mat. Materials, Labor & Expenses	$14,921,286	$0	$14,921,286	$311,129	$503,794	$470,479	$341,111	$420,973	$470,635	$297,207	$622,540	$703,346	$750,114	$390,329	$1,639,302	$20,756,125
2	182.3x	Book Depreciation - Current Year Additions	2,799,851	0	2,799,851	0	463	7,985	62,991	37,535	118,516	140,387	126,418	167,134	118,127	236,402	195,134	3,986,261
3		Total	17,721,137	0	17,721,137	311,129	504,257	478,464	403,102	458,508	589,151	437,594	748,958	870,480	868,241	626,731	1,834,436	24,742,386
4		Cumulative Regulatory Asset - Deferred	$14,107,285		$14,107,285	$14,418,414	$14,922,671	$15,401,135	$15,804,237	$16,262,745	$16,851,896	$17,289,490	$18,038,448	$18,908,928	$19,777,169	$20,403,900	$22,238,336	
		Amortization																
5	407.3x	Mat. Materials, Labor & Expenses	$1,194,757	$0	$1,194,757	$99,436	$100,479	$100,479	$100,479	$100,479	$100,479	$100,479	$100,479	$100,479	$100,479	$100,479	$100,479	$1,195,275
6	407.3x	Book Depreciation	1,122,313	0	1,122,313	107,487	107,487	107,487	107,487	107,487	107,487	107,487	107,487	107,487	107,487	107,487	107,487	2,017,311
7		Total	2,317,070	0	2,317,070	207,923	207,966	207,966	207,966	207,966	207,966	207,966	207,966	207,966	207,966	207,966	207,966	3,212,586
8		Cumulative Regulatory Asset - Amortization	$2,317,070		$2,317,070	$2,524,993	$2,732,959	$2,940,925	$3,148,891	$3,356,857	$3,564,823	$3,772,789	$3,980,755	$4,188,721	$4,396,687	$4,604,653	$4,812,619	
		Regulatory Asset - Deferred O&M Expenses - Carrying Cost																
9	182.3x	Mat. Materials, Labor & Expenses	$642,275	$0	$642,275	$20,364	$33,857	$34,018	$31,073	$36,108	$36,037	$35,332	$36,840	$37,146	$34,240	$35,061	$83,695	$1,734,095
10	182.3x	Book Depreciation	241,043	0	241,043	12,340	15,002	15,073	12,795	15,267	13,121	9,987	9,705	15,727	11,616	13,173	14,586	304,377
11		Total	883,318	0	883,318	32,704	48,859	49,091	43,868	51,375	49,158	45,319	46,545	52,873	45,856	48,234	98,281	2,038,472
12		Cumulative Regulatory Asset - Deferred	$1,065,195		$1,065,195	$1,097,899	$1,146,758	$1,195,849	$1,239,717	$1,291,092	$1,340,250	$1,385,569	$1,432,114	$1,484,987	$1,530,843	$1,579,077	$1,677,358	
		Regulatory Asset - Total																
13	182.3x	Mat. Materials, Labor & Expenses	$15,563,042	$0	$15,563,042	$430,929	$637,130	$604,497	$472,663	$557,560	$607,152	$433,018	$759,859	$840,971	$885,833	$525,869	$1,823,476	$23,685,495
14	182.3x	Book Depreciation - Current Year Additions	2,841,363	0	2,841,363	119,827	122,952	130,545	183,273	160,289	239,124	257,873	243,610	290,348	237,230	356,062	319,119	6,243,012
15		Total	18,404,405	0	18,404,405	550,756	760,082	735,042	655,936	717,849	846,276	690,891	1,003,469	1,131,319	1,123,063	881,931	2,142,595	29,928,507
16		Cumulative Regulatory Asset - Total	$16,372,480		$16,372,480	$16,923,236	$17,683,318	$18,418,360	$19,074,296	$19,792,145	$20,638,421	$21,329,312	$22,332,781	$23,464,100	$24,587,163	$25,469,094	$27,611,689	

Carrying Cost Rate in Line 11 6.75%

182.3x	Mat. Materials, Labor & Expenses	BY 2012	Carrying Cost	182.3x	Book Depreciation	BY 2012
	2008	$48,777	$1,350		2008	$2,856,739
	2009	$1,877,650	$52,016		2009	$2,733,614
	2010	$4,167,102	$115,383		2010	$2,617,713
	2011	$15,092,966	$417,792		2011	$1,346,927
		$21,186,495	$586,541			$9,555,993

Duke Energy Ohio
Calculation of Rider DR-IM

Annualized Property Taxes

Line No.	OHIO PROPERTY TAX	YEAR 2008		YEAR 2009		YEAR 2010	
	Property Tax Expense (Amounts Exclude Post In-Service Carrying Costs)	15-Year General Plant	25-Year Distribution Plant	15-Year General Plant	25-Year Distribution Plant	15-Year General Plant	25-Year Distribution Plant
1	Current Year Investment	$13,072,549	$5,675,444	$1,159,563	$9,576,601	$7,684,915	$23,046,217
2	Less: AFUDC In-Service	241	28,105	-	-	-	-
3	Net Cost of Taxable Property	13,072,308	5,647,339	1,159,563	9,576,601	7,684,915	23,046,217
4	Percent Good *	70.0%	82.0%	76.7%	68.0%	63.3%	90.0%
5	True Value of Taxable Property	9,150,616	5,368,618	889,585	6,235,877	6,401,534	20,737,295
6	Valuation Percent	24%	85%	24%	85%	24%	85%
7	Total Taxable Value	2,196,148	4,563,495	213,452	7,000,496	1,536,368	17,627,296
8	Retired Net Taxable Plant End of Year (@ 15%)	0	0	0	0	0	0
9	Net Property Tax Valuation	2,196,148	4,563,495	213,452	7,000,496	1,536,368	17,627,296
10	Ohio Property Tax Valuation	$200,084	$415,766	$19,447	$637,794	$139,974	$1,605,970
11	Ohio Property Tax Calculation:						
12	Average Property Tax Rate per $1,000 of Valuation	$91.1070		$91.1070		$91.1070	
13	* From Electric Company Annual Report -						
14	Schedule C - 15 Year Class Life (General Plant)						
15	Schedule C - 25 Year Class Life (Distribution Plant)						

Duke Energy Ohio
Calculation of Rider DR-IM

Annualized Property Taxes

Line No.	OHIO PROPERTY TAX	YEAR 2011		YEAR 2012		Total
	Property Tax Expense (Amounts Exclude Post In-Service Carrying Costs)	15-Year General Plant	25-Year Distribution Plant	15-Year General Plant	25-Year Distribution Plant	
1	Current Year Investment	$27,073,556	$30,688,207	$39,161,852	$33,160,959	$131,160,669
2	Less: AFUDC In-Service	-	-	-	-	
3	Net Cost of Taxable Property	27,073,556	30,688,207	39,161,852	33,160,959	
4	Percent Good *	90.0%	94.0%	96.7%	98.0%	
5	True Value of Taxable Property	24,366,200	28,814,015	37,868,511	32,497,140	
6	Valuation Percent	24%	85%	24%	85%	
7	Total Taxable Value	5,847,888	24,491,913	9,088,683	27,623,079	
8	Retired Net Taxable Plant End of Year (@ 15%)	0	0	0	0	
9	Net Property Tax Valuation	5,847,888	24,491,913	9,088,683	27,623,079	
10	Ohio Property Tax Valuation	$532,784	$2,231,385	$828,043	$2,516,856	$9,127,303
11	Ohio Property Tax Calculation:					
12	Average Property Tax Rate per $1,000 of Valuation	$91.1070		$91.1070		
13	* From Electric Company Annual Report -					
14	Schedule C - 15 Year Class Life (General Plant)					
15	Schedule C - 25 Year Class Life (Distribution Plant)					

Duke Energy Ohio
Calculation of Rider DR-IM

Incremental Operation & Maintenance Expenses/(Savings)

Line No.		
1	Savings per Stipuation in Case No. 10-2326-GE-RDR	($4,770,000)
2	Deferral of O&M costs to future years per Stipulation	($1,470,000)
3		
4	Total	($6,240,000)

Duke Energy Ohio
Calculation of Rider DR-IM

Charge Per Bill

Line No.		Total	Residential [a]	Non-Residential	Source
1	2012 Rider DR-IM Revenue Requirement	$42,527,095	$36,148,031	$6,379,064	Schedule 1
2	Customer Bills [b]		7,362,091	874,299	Internal Company Data
3	Rider DR-IM Charge - Per Bill		$4.91	$7.30	Line 1 ÷ Line 2
4	Cap per Stipulation - 2013		$5.50	N/A	Stipulation in Case No. 08-920-EL-SSO

Note: [a] Per Stipulation in Case No. 08-920-EL-SSO, residential customer class is allocated 85% of Rider DR-IM revenue requirement.
[b] Excludes all lighting customers.

		Thru 2011		2012													
Project ID CB	In-Service Date	2011 Schedule 14	Recorded as In-Service After 2011 Filing	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	Total To Date
CMND0111	7/31/2011	596,901.[illegible]	0.00													0.00	596,901.[illegible]
CMND0111	12/31/2012		0.00	224,140.21	145,673.24				694.02						[illegible]	[illegible]	[illegible]
CMND0211	8/31/2011	[illegible]	0.00													0.00	[illegible]
CMND0311	12/31/2011	1,096,303.72	0.00													0.00	[illegible]
CMND0411	11/30/2011	[illegible]	0.00													0.00	[illegible]
CMND0511	12/31/2011	357,216.87	0.00													0.00	[illegible]
CMND0611	3/31/2012		457,725.83													0.00	457,725.83
CMND0711	3/31/2012		[illegible]													0.00	[illegible]
CMND0811	7/31/2012		[illegible]													[illegible]	674,756.25
CMND0911	4/30/2012		[illegible]													0.00	[illegible]
CMND1011	2/29/2012		[illegible]													0.00	[illegible]
CMND1111	11/30/2012		[illegible]						[illegible]							[illegible]	[illegible]
CMND1211	12/31/2012		[illegible]						[illegible]						[illegible]	[illegible]	[illegible]
E3212	[illegible]	[illegible]	0.00			0.00										0.00	[illegible]
E4372	7/24/2008	6,715.26	0.00													0.00	[illegible]
E4373	[illegible]	41,402.59	0.00													0.00	[illegible]
E4374	12/11/2010	[illegible]	0.00													0.00	[illegible]
E4375	[illegible]	[illegible]	0.00													0.00	[illegible]
E4376	10/10/2009	[illegible]	0.00													0.00	61,632.27
E4377	9/15/2010	[illegible]	0.00			566.50										566.50	[illegible]
E4378	9/28/2009	26,533.92	0.00													0.00	26,537.92
E4379	4/21/2010	[illegible]	0.00			41,271.50										41,271.50	[illegible]
E4380	12/29/2009	[illegible]	0.00			36,672.73										36,672.73	[illegible]
E4381	1/27/2009	71,400.05	0.00			1.04										1.04	[illegible]
E4396	[illegible]	76,609.42	0.00			18,027.22										[illegible]	[illegible]
E4412	9/21/2009	12,501.00	0.00													0.00	12,501.00
E4413	7/28/2008	[illegible]	0.00													0.00	[illegible]
E4414	[illegible]	43,470.63	0.00													[illegible]	[illegible]
E4415	12/11/2009	[illegible]	0.00			[illegible]										[illegible]	[illegible]
E4416	[illegible]	[illegible]	0.00													[illegible]	[illegible]
E4417	[illegible]	[illegible]	0.00			[illegible]										[illegible]	[illegible]
E4418	[illegible]	[illegible]	0.00			[illegible]										[illegible]	[illegible]
E4419	[illegible]	[illegible]	0.00													0.00	[illegible]
E4420	[illegible]	[illegible]	0.00			[illegible]										[illegible]	[illegible]
E4430	[illegible]	[illegible]	0.00			[illegible]										[illegible]	[illegible]
E4454	[illegible]	[illegible]	0.00			[illegible]										[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00													[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00													0.00	[illegible]
[illegible]	[illegible]	78,257.41	0.00													0.00	[illegible]
[illegible]	[illegible]	[illegible]	0.00			[illegible]										[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	0.00			[illegible]										[illegible]	[illegible]
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[illegible]	[illegible]		0.00	[illegible]	[illegible]				[illegible]						[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00							[illegible]						[illegible]	[illegible]

		Thru 2011		2012													
Project ID CB	In-Service Date	2011 Schedule 14	Recorded as In-Service After 2011 Filing	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	Total To Date
E1ND0911	6/30/2011	-$328,206.52	$0.00							$502,204.23						$502,204.23	$173,997.71
E1ND0911	11/30/2011	-$116,018.00	$0.00						$4,048.07							$4,048.07	$112,031.93
E1ND0911	10/31/2011	-$586,928.09	$0.00						-$4,048.07							$4,048.07	$1,172,928.16
E1ND0911	3/31/2012		$1,207,506.71						$4,091.72							$4,091.72	$1,202,414.99
E1ND0911	5/31/2012		$1,735,645.06						-$4,091.72							$4,091.72	$1,741,736.78
E1ND0911	6/30/2012		$1,866,407.54													$0.00	$1,866,407.54
E1ND0911	7/31/2012		$1,866,411.00													$0.00	$1,866,411.00
E1ND0911	8/30/2012		$1,701,402.46													$0.00	$1,701,402.46
E1ND0911	10/31/2012		$1,696,931.36						$26.64							$26.64	$1,696,957.99
E1ND0911	11/30/2012		-$92,411.86						$1,801.80						$1,207,795.52	$1,209,597.32	$1,117,185.46
F0606	12/10/2010	$10,966.93	$0.00			$25,609.00										$25,609.00	-$99,357.84
F0606	1/31/2011	-$7,568.81	$0.00			$60.12										$60.12	$7,508.67
F0607	12/31/2010	-$37,016.32	$0.00			$11,704.24										$11,704.24	$50,311.03
F0607	8/31/2010	$6,832.67	$0.00			$7,291.44										$7,291.44	$62,144.67
F0610	8/24/2010	$54,136.75	$0.00			$11,833.80										$11,833.80	-$101,503.95
F0611	12/10/2010	$32,773.80	$0.00			$14.82										$14.82	-$28,693.80
F0612	12/10/2010	$116,867.66	$0.00			$74,630.00										$74,630.00	$14,591.08
F0612	12/30/2010	$74,879.42	$0.00			$20,320.39										$20,320.39	$94,370.05
F0614	5/31/2010	-$62,251.42	$0.00			$11,174.17										$11,174.17	$51,077.40
F0616	2/10/2010	-$82,067.65	$0.00			$6,304.69										$6,304.69	$87,784.49
F0616	7/14/2010	$58,870.57	$0.00			$11,833.17										$11,833.17	$70,703.74
F0617	1/14/2010	$47,300.17	$0.00			$2,909.44										$2,909.44	$50,209.61
F0618	8/10/2010	-$32,618.66	$0.00			$7,978.52										$7,978.52	-$24,640.14
F0619	3/31/2010	-$72,456.66	$0.00			$1,470.73										$1,470.73	-$70,985.93
F0620	6/18/2010	$57,375.21	$0.00			$10,932.76										$10,932.76	$68,307.97
F0621	10/1/2010	$53,817.61	$0.00			$14,415.93										$14,415.93	$68,233.54
F0622	10/18/2010	-$94,035.07	$0.00			$1,156.66										$1,156.66	-$92,878.41
F0894	12/10/2010	-$136,889.11	$0.00			$2,290.91										$2,290.91	-$134,598.20
F0604	1/28/2010	$15,032.00	$0.00			$334.21										$334.21	$15,366.21
F0605	11/18/2010	$7,027.19	$0.00			$1,420.70										$1,420.70	$8,447.89
F0606	11/30/2010	-$92,420.17	$0.00			$10,274.07										$10,274.07	-$82,146.10
F0607	5/27/2010	$7,766.04	$0.00			$4,678.76										$4,678.76	$12,444.80
F0608	4/30/2010	-$1,075.95	$0.00			$183.67										$183.67	-$892.28
F0608	9/17/2010	$10,840.00	$0.00			$2,961.13										$2,961.13	$13,801.13
F0609	6/1/2010	$19,632.46	$0.00			-$1,079.09										-$1,079.09	$18,553.37
F0609	8/16/2010	$77,345.57	$0.00			$0.00										$0.00	$77,345.57
F0610	2/10/2010	-$44,217.25	$11,066.07	$1,541.02	-$17.46	$262.50	-$77.46	$211.06	$0.78	$2.75	$28.11	$56.00	$28.11			$15,196.40	-$60,613.65
F0623	1/31/2010	$3,760.23	$0.00			$1,657.45										$1,657.45	$5,417.68
F0624	9/1/2010	$14,311.19	$0.00			$1,176.69										$1,176.69	$15,487.88
F0625	1/23/2010	$9,091.43	$0.00			$0.39										$0.39	$9,091.82
F0626	11/1/2010	-$4,941.27	$0.00			$60.25										$60.25	-$4,881.02
F0630	10/31/2010	$10,429.23	$0.00			$1,026.39										$1,026.39	$11,455.62
F0633	2/28/2011	$60,836.16	$0.00			$12.21										$12.21	$60,848.37
F0634	9/30/2011	-$13,106.23	$0.00	$1.20	$71.13	$1,996.87										$4,115.04	-$11,091.19
F0634	10/25/2011	$8,709.93	$0.00	$75.01												$75.01	$8,784.94
F0635	7/8/2011	$41,774.37	$0.00			$270.54										$270.54	$42,044.91
F0636	7/7/2011	$11,845.50	$0.00			$4.92										$4.92	$11,850.42
F0637	8/31/2011	-$90,056.16	$0.00	$6.00		$14.42										$20.42	-$90,035.74
F0638	7/5/2011	$6,056.46	$0.00			$78.42										$78.42	$6,134.88
F0704	11/30/2011	-$54,502.11	$0.00	$4,040.03	$2,704.01	$0.86	$1,264.11	$4.00								$8,836.81	-$45,665.30
F0705	7/8/2011	$56,012.26	$0.00	$0.19	$5.22											$5.41	$56,017.67
F0844	6/30/2011	-$60,450.70	$0.00	$5.08	$37.02											$42.10	-$60,408.60
F0904	3/2/2011	$37,891.78	$0.00													$0.00	$37,891.78
D0101	4/19/2012		-$70,314.64	-$4,217.72	$44.03	-$4,172.72	-$2,207.00	-$1,910.05	$1,921.13	$0.01						$27,942.41	-$42,372.24
D0944	5/27/2011	-$6,884.26	$0.00	$2.66	$6.04	$0.13	$1,507.38									$1,516.24	$8,400.50
D0904	1/10/2011	$21,137.77	$0.00	-$21.00		$1.98										$22.98	$21,160.75
D0904	2/10/2011	$7,000.07	$0.00	$54.50		$0.00										$54.50	$7,054.57
D0904	2/18/2011	-$1,127.02	$0.00	-$63.00		$1.39										-$61.61	-$1,188.63

		Thru 2011		2012													
Project ID CB	In Service Date	2011 Schedule 14	Recorded as In-Service After 2011 Filing	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	Total To Date
G3537	6/29/2011	55,894.62	0.00													0.00	55,894.62
G3819	7/14/2011	48,104.28	0.00	3,880.08												3,880.00	51,984.28
G3924	9/27/2011	128,978.87	0.00	109.83	7,153.17											9,260.00	138,238.87
G3777	4/4/2011	46,363.84	0.00	1,410.00												1,410.00	47,773.84
G3753	11/30/2011	56,711.00	0.00	11,910.98	369.34											12,280.32	68,991.32
G3824	10/24/2011	150,151.71	0.00	573.18	382.59	2,649.98										3,605.75	153,757.46
G3844	4/20/2011	49,734.71	0.00	15,042.79												15,042.79	64,777.49
G3625	10/16/2011	1,996.71	0.00			0.00										0.00	1,996.71
G3936	7/21/2011	18,873.07	0.00	1,074.80												1,074.80	19,947.87
G3999	12/9/2011	62,711.46	0.00	11,496.34	1,[illegible]		427.92									13,571.14	76,282.60
G1000	12/22/2011	37,955.54	0.00	33,720.13	437.30		1,100.20									35,157.63	73,113.17
G1021	11/11/2011	45,167.15	0.00	139.16	1.04		1,215.60									1,355.80	46,522.95
G1038	10/3/2011	45,433.30	0.00				436.10									436.10	45,869.40
G1121	11/1/2011	62,150.36	1.00	512.46	0.43	120.51	21.[illegible]									[illegible]	63,804.64
G1143	9/12/2011	4,232.39	0.00													0.00	4,232.39
G1262	8/3/2011	11,319.51	0.00													0.00	11,319.51
G1283	8/7/2011	6,641.36	0.00													0.00	6,641.36
G1298	9/12/2011	12,964.35	0.00													0.00	12,964.35
G1299	4/14/2011	10,569.33	0.00													0.00	10,569.33
G1307	5/12/2011	15,170.77	0.00													0.00	15,170.77
G1510	12/16/2011		770.41	4.90	179.10	44.39	1,12.30	142.62	1,331.16	2,557.93	6,722.12	13,886.37	12,642.12	4,180.73	4,205.62	45,643.78	46,414.32
G1604	10/31/2011	45,137.70	0.00	5,7.90	9.65	6.38	1,596.10									1,636.33	46,774.03
G2414	8/1/2012		386.96	13.68	0.13	13.54	43.56	1,432.60	103.56							1,615.20	1,995.16
G2733	4/12/2012		15,382.37	204.73	5,645.63	88.75	3,651.39	6,284.46	4,077.70		0.32	18.05				20,020.46	35,402.83
G2755	1/31/2013		14,336.21	7,420.26	12,505.75	4,734.62	13.87							1.34	71.59	27,150.61	41,486.82
G3027	2/28/2012		102,352.96	17,627.40	14,527.61	13,414.72	12,228.70	0.10	0.40	21.54	1,177.53			12.29	468.31	61,214.81	163,567.77
G3029	5/10/2012		43,409.78	11,[illegible].34	11,560.04	10,472.09	10,374.34	1,276.28	430.63							45,993.26	89,403.04
G3047	6/8/2012		9,237.87	7,201.22	1,898.32	3,624.76	3,249.18	12,286.94	13,456.04	11,777.34	6.07	1,036.45	0.30	401.46	0.75	77,510.70	86,748.57
G3015	7/31/2012		14,384.64	30,451.10	10,324.28	11,621.24	3,347.56	1.12	1,4.61	1,[illegible].39	8,[illegible].46	2,[illegible].37	1,971.03	922.40		79,493.59	93,878.23
G3020	7/31/2012		8,285.16	3,[illegible].07	09.08	1,[illegible].07	4,[illegible].19	12,[illegible].37	7,671.06	17,7[illegible].23	375.45	94.[illegible]	1,[illegible].05	259.19		82,635.91	90,921.07
G3278	5/30/2012		12,594.06	4,[illegible].63	19,722.78	3,9[illegible].98	14,709.16	1,104.84		45.20	176.12	1,[illegible].34	3.41	1,[illegible].12		44,173.12	56,767.43
G3280	11/7/2012		8,034.73	8.10	1,[illegible].61	51.55	2,136.07	161.74	1,491.13	3,128.02	4,641.74	3,568.38	23,8[illegible].30	10,248.67	12,346.03	74,674.15	82,708.87
G3581	5/14/2012		1,159.77	1,741.13	801.51	4,783.61	5,162.35	17,251.15	4,140.10	834.31				67.13	1,121.16	31,[illegible].24	32,470.85
G3589	12/7/2012		2,461.14	4,[illegible]	3,[illegible].66	15,[illegible].15	451.40	6,416.27	15,[illegible]	12,[illegible].80	4,[illegible].01	10,[illegible].40	24.53			114,[illegible].46	117,542.15
G3614	11/30/2012		17,[illegible].47	30,[illegible].31		1,[illegible].65	12,[illegible].19	8,[illegible].13	1,755.16	3,[illegible].35	4,[illegible].31	2,[illegible].11	4,279.42	3,[illegible].81	4,[illegible].37	69,[illegible].11	87,605.21
G3705	8/31/2012		402.72	1,[illegible].73	2,[illegible].4	21.[illegible]	4,[illegible].03	14,[illegible].59	51,[illegible].1	2,[illegible].97	15,[illegible].01	4,[illegible].26	26,9[illegible].47	1,[illegible].48		1[illegible],[illegible].1	1[illegible],[illegible].9
G3707	5/31/2012		1,763.75	31,[illegible].31	4,[illegible]	3,[illegible]	11,[illegible].30	16,[illegible].63	4,[illegible]	18,[illegible].28	1,[illegible].16	4,[illegible].61	12,[illegible]	4,[illegible].24	4,[illegible]	1,[illegible].70	1[illegible],[illegible].76
G3725	1/30/2013		617.76	4,[illegible].46	5,042.05	3,[illegible].96	2,317.85	2,[illegible].53	1,[illegible].40	1,[illegible].98	1,[illegible].70	209.[illegible]	1,823.17	2,239.94	1,[illegible].[illegible]	4,[illegible].87	10,[illegible].08
G3756	8/31/2012		2,[illegible].87	1,281.64	10,[illegible].27	12,[illegible].17	2,[illegible].31	1,[illegible].02	7,[illegible].80	1,071.68	12,[illegible].13	1,[illegible].14	2,510.53	1,[illegible].62	2,013.15	11,[illegible].64	1[illegible],[illegible].41
G3757	3/31/2012		895.79	11,[illegible].52	4,[illegible].05	4,[illegible].[illegible]	4,[illegible].[illegible]	1,[illegible].73	2,[illegible].37	1,[illegible].10	10,[illegible].[illegible]	1,[illegible].21	4,[illegible].96			78,[illegible].76	7[illegible],[illegible].71
G3759	1/28/2012		1,[illegible].94	10,[illegible].10	1,[illegible].33	1,[illegible].16	2,[illegible].15	11,[illegible].73	12,[illegible].[illegible]	1,[illegible].72	10,[illegible].17	1,[illegible].15	1,[illegible].65	17,[illegible].19	1,[illegible]	107,[illegible].47	1[illegible],[illegible].71
G4159	12/31/2012		1,[illegible].97		1,[illegible]	2,[illegible]	4,[illegible].92	11,[illegible].28	11,[illegible].[illegible]	1,[illegible].88	1,[illegible].52	2,[illegible].[illegible]	22,[illegible].63	1,[illegible].[illegible]	2,761.[illegible]	1[illegible],[illegible].[illegible]	1[illegible],[illegible].[illegible]
G4160	6/30/2012	Dec 14	0.00	1,[illegible].[illegible]	7,[illegible]	2,047.[illegible]	3,[illegible].17	14,225.37	12,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].01	1,[illegible].[illegible]	2,[illegible]	1,[illegible]		95,[illegible].19	1[illegible],[illegible]
G4303	1/31/2012		1,[illegible]	1,278.04	279.03	504.[illegible]	1,[illegible].20	7,[illegible].[illegible]	1,[illegible].[illegible]	1,020.85	1,[illegible].98	1,[illegible].[illegible]	10,327.[illegible]	1,[illegible].08		64,[illegible].75	6[illegible],[illegible]
G4486	10/19/2011		1,054.70	1,[illegible].06	74.11	1,[illegible].58	3,2[illegible].[illegible]	14,[illegible]	1,[illegible].[illegible]	1,069.54	22,[illegible].[illegible]	1,[illegible]	4,461.27	1,[illegible].29	531.70	4,[illegible].74	1[illegible],[illegible]
G4617	10/27/2011		1,[illegible].27				11.21	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	10,[illegible].06	21,[illegible].[illegible]	1,[illegible].43	1,[illegible].68	7[illegible],[illegible].76	7[illegible],[illegible]
G4673	12/31/2011		1,[illegible].95		3.43	1,[illegible].13	1,[illegible].10	5,[illegible].60	7,[illegible]	1,[illegible].17	1,[illegible].[illegible]	1,[illegible].42	7,[illegible]	1,[illegible].92	1,[illegible].42	3[illegible],[illegible]	3[illegible],[illegible]
G5165	6/12/2012		1,[illegible]			3,[illegible].21	5,[illegible].28	2,[illegible].[illegible]	8,[illegible].01	8,[illegible].05	1,[illegible].86	3,[illegible].[illegible]	1,[illegible].[illegible]	14,441.78	1,[illegible].38	5[illegible].02	5[illegible]
G5447	12/31/2012		1,[illegible]	152.75		1,[illegible].[illegible]	1,[illegible].75	2,[illegible].[illegible]	1,[illegible].12	1,[illegible].26	1,[illegible].46	1,[illegible].[illegible]	2,[illegible].[illegible]	2,[illegible].[illegible]	2,[illegible].[illegible]	23,[illegible].14	7[illegible]
G5673	11/2/2012		49.70		2.[illegible]	4,[illegible].94	2,[illegible].[illegible]	1,[illegible].40	1,[illegible].[illegible]	1,[illegible].[illegible]	2,[illegible].19	1,[illegible].47	1,[illegible].86	1,[illegible].[illegible]	2,[illegible].[illegible]	1[illegible],[illegible].[illegible]	1[illegible]
G5882	12/14/2012		4.90	1,[illegible].20	1,[illegible].[illegible]	3,[illegible].[illegible]	6,[illegible].[illegible]	8,[illegible].[illegible]	12,[illegible].84	1,[illegible].[illegible]	1,[illegible].20	3,[illegible].[illegible]		115.83	1,[illegible].[illegible]	1,[illegible].21	1[illegible]
G6043	1/9/2012		0.00	4.[illegible]	4,[illegible].62	3,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].26	3,[illegible].56	1,[illegible].72	2,[illegible].[illegible]		37.29	1,[illegible].18	14,[illegible].91	1[illegible]
G6051	8/21/2012		1.83	2,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	311.[illegible]	1,400.85	34.71	1,[illegible].[illegible]	1,[illegible].20	8,[illegible].[illegible]				1,[illegible].[illegible]	1[illegible]
G6060	6/29/2012		0.00	1,[illegible].45	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].68	1,[illegible].[illegible]	2,[illegible].[illegible]				5,[illegible].[illegible]	1[illegible]
G6061	2/12/2012		0.31	2,[illegible].31		1,[illegible].[illegible]	3,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].27	1,[illegible].[illegible]					5,[illegible].[illegible]	5,[illegible]
G6074	2/10/2012		1.41	2,[illegible].[illegible]		2,[illegible].[illegible]	2,[illegible].34	1,[illegible].[illegible]	1,[illegible].[illegible]	3,[illegible].41	1,[illegible].[illegible]	1,[illegible].70				1,[illegible].[illegible]	1[illegible]
G6117	11/13/2012		0.09	2,[illegible].04				3,[illegible]	2,[illegible].30	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]		1,[illegible].[illegible]	1,[illegible].[illegible]	14,[illegible].49	1[illegible]
G6119	7/30/2012		0.41	2,[illegible].21		1,[illegible].[illegible]	1,[illegible].[illegible]	5,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]	1,[illegible].[illegible]		1,[illegible].[illegible]	1,[illegible].[illegible]	8,[illegible].72	8,[illegible]

		Thru 2011		2012													
Project ID CB	In Service Date	2011 Schedule 14	Recorded as In-Service After 2011 Filing	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	Total To Date
[illegible]	12/14/2012		0.00							-8.39	-499.57	[illegible]	[illegible]	-16,019.49	[illegible]	30,014.46	[illegible]
SGAMDOM	12/15/2011	-16,508.15	0.00	7,121.98	5,079.21	331.67										12,558.74	[illegible]
SGAPCSRVC	12/6/2010	-13,920.28	0.00													0.00	[illegible]
SGBLADESV	12/31/2011		0.00		21.07		-41.07									-21.13	[illegible]
[illegible]	12/30/2012		0.00								-92.5	[illegible]	1,964.22	4,540.31	2,826.90	11,389.19	[illegible]
[illegible]	Blanket		0.00											193,510.15		-193,510.19	[illegible]
[illegible]	5/1/2011	7.41	0.00													0.00	7.41
[illegible]	1/29/2010	1,702.87	0.00			5,132.04										5,132.04	[illegible]
[illegible]	11/21/2012		13,961.[illegible]	372.77		0.26	[illegible]	1,753.07	4,864.57	8,046.31	4,830.15	2,712.01	5,070.21	5,617.07	7,277.34	40,122.28	53,549.87
[illegible]	12/31/2012		0.00								5,110.58	5.67				-5,116.53	[illegible]
[illegible]	11/1/2010	13,773.16	0.00			-4,408.84										4,408.84	-16,312.00
[illegible]	Blanket	-1,994.17	0.00		0.00											0.00	57,544.07
SGGAPEMTR	5/31/2012		0.00					14.37	574.88	-1,216.55						1,557.04	1,397.24
[illegible]	Blanket		0.00													0.00	0.00
[illegible]	5/31/2012		4,697.50	-40.58	7.02	362.01										-206.31	-4,640.71
SGITRECTR	5/31/2012		-12,504.04	101.[illegible]	148.20	-179.42	315.44	403.72	-454.79	-440.35	592.50	721.87	-2,072.40	-471.79	1,344.30	-8,757.34	-21,317.[illegible]
SGITRNSL	5/31/2011		62,415.12	-12,447.91	6,552.35	3,994.31	-7,240.67	5,620.05	1,310.42	-2,319.98	1,155.12	159.35	61.82	1,105.08		-49,619.56	[illegible]
[illegible]	5/31/2012		-232.94					29.27	5,758.19	-48.58	-418.73					-5,141.87	-5,406.46
[illegible]	6/10/2012		0.00			-454.87	-418.43	-664.96	-546.86	603.40	-30,281.50	0.00				-30,299.45	-32,299.45
[illegible]	11/16/2012		0.00						-3,402.02	5,029.74	-2,704.39	-903.03	-276.48	124.36	0.70	-3,100.07	-8,192.87
[illegible]	12/31/2011		0.00								35,771.49	5.00				35,737.49	-35,757.49
SGMDMS	6/18/2010	-270,911.00	0.00													0.00	-270,911.00
SGMWSCADA	5/31/2011	50,705.60	0.00													0.00	50,705.60
[illegible]	5/31/2011	-253,946.11	0.00													0.00	-253,946.11
[illegible]	10/10/2010	19,422.07	0.00			-453.72										-453.72	[illegible]
[illegible]	5/31/2011	68.57	0.00													0.00	68.57
[illegible]	12/10/2010	15,408.70	0.00			11,730.41										11,730.41	[illegible]
[illegible]	Blanket		0.00										501.27	8,802.80	17,384.54	36,708.1[illegible]	22,738.[illegible]
[illegible]	Blanket		0.00									0.10	4,327.41	94,050.13	67,251.01	165,754.76	166,174.96
[illegible]	11/2/2011	-2,417.03	0.00													0.00	[illegible]
[illegible]	Blanket	-920,625.25	0.00	-28,644.27	-110,200.29	-95,803.08	[illegible]	[illegible]	180,280.11	128,913.30	-100,552.64	[illegible]	194,660.21	56,353.73	65,772.02	1,770,899.58	[illegible]
[illegible]	Blanket	245,565.62	0.00	65.28		6,806.75										1,807.60	248,306.[illegible]
[illegible]	Blanket	104,049.10	0.00	40,270.57	5,042.07	3,037.96	[illegible]	[illegible]	-40,365.0[illegible]	38,049.[illegible]	140,090.53	132,455.49	111,214.26	71,512.38	15,634.60	866,311.04	[illegible]
[illegible]	Blanket	-1,262,106.0[illegible]	0.00	[illegible]	[illegible]	-1,115,601.71	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	12/31/2012		0.00													0.00	0.00
[illegible]	7/13/2011	95,894.29	0.00													0.10	95,894.79
[illegible]	6/22/2011	0.00	0.00													0.00	0.00
[illegible]	4/30/2009	60,506.15	0.00													0.00	[illegible]
[illegible]	9/30/2010	42,551.69	0.00			5,092.49										5,092.49	[illegible]
[illegible]	3/30/2011	48,404.06	0.00	1,491.16	131.53	15,020.91	-491.58	217.10								2,591.61	51,995.27
[illegible]	8/10/2012		0.00	-1,620.00	21.04	13,810.79	6,903.27	81.06	-168.63	4,712.41	14,517.88	12,050.87	1,102.45	1,581.01	[illegible]	35,812.[illegible]	45,850.55
[illegible]	4/20/2010	-104,502.10	0.00													0.00	[illegible]
[illegible]	6/30/2010	56,546.70	0.00			-7,018.01										-1,018.01	[illegible]
[illegible]	8/1/2011	-63,101.29	0.00	-4,014.61	1,034.67	4,324.32										1,080.06	[illegible]
[illegible]	9/24/2012		0.00		34.20	754.90	2,136.5[illegible]	[illegible]	[illegible]	-470.15	35,641.20	[illegible]	[illegible]	-6,010.92	[illegible]	65,564.42	[illegible]
[illegible]	3/1/2011	[illegible]	0.00													0.00	[illegible]
[illegible]	10/8/2010	64,081.41	0.00			-7,970.02										-7,970.02	[illegible]
[illegible]	[illegible]	12,082.59	1.07	320.92	1.50	208.65										558.08	[illegible]
[illegible]	1/4/2012		0.00		1.92	-1,681.49	[illegible]	613.58				[illegible]	327.49	[illegible]	[illegible]	41,324.21	[illegible]
[illegible]	11/2/2010	[illegible]	0.00			-8,021.57										[illegible]	[illegible]
[illegible]	[illegible]	47,880.08	1.05	831.43												155.96	[illegible]
[illegible]	11/30/2012		0.00		1.07	-118.49	-2,722.96	32.63	186.03	0.01	-49.56	1,464.80	31,602.03	-2,837.04	6,609.37	-40,410.20	[illegible]
[illegible]	11/16/2010	-58,256.36	0.00			2,741.72										8,241.72	[illegible]
[illegible]	6/10/2011	20,567.57	0.00	1,569.29	[illegible]	102.50	[illegible]									[illegible]	[illegible]
[illegible]	5/31/2012		344.77	-1,043.09	[illegible]	3,587.11	12,580.68	-1,352.65	-1,916.50	5,410.24	[illegible]				[illegible]	41,354.[illegible]	[illegible]
[illegible]	10/8/2010	[illegible]	0.00			6,202.90										6,202.90	[illegible]
[illegible]	12/31/2011	87,720.26	0.00	120.41	3.47	19.52										140.55	[illegible]
[illegible]	[illegible]		-142.30	451.54	-208.49	45.25	7,551.54	[illegible]	27,185.90	-2,567.84	1,274.60	[illegible]	[illegible]			60,397.[illegible]	19,021.16

		Thru 2011		2012													
Project ID CB	In Service Date	2011 Schedule 14	Recorded as In-Service After 2011 Filing	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	Total To Date
[illegible]	12/20/2010	[illegible]	0.00			6,155.57										[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00	15,940.24	121.98	764.63	[illegible]									[illegible]	[illegible]
[illegible]	2/3/2012		172.06	281.10	818.30	54.85	[illegible]	920.30	251.85	4,783.76	[illegible]	1,028.36	1,005.25		1.00	[illegible]	33,182.57
[illegible]	[illegible]	[illegible]	0.00													0.00	[illegible]
[illegible]	[illegible]	[illegible]	0.00			1,140.57										[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00			23,4[illegible].46										[illegible]	[illegible]
[illegible]	[illegible]		0.00								[illegible]	[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]											[illegible]	[illegible]
[illegible]	[illegible]		0.00								[illegible]	[illegible]				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]											[illegible]	[illegible]
[illegible]	12/17/2010		0.00								8,419.36	0.00				[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	1,624,6[illegible].47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00			0.01										0.00	[illegible]
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Stimulus funds received but not in service	[illegible]
Total stimulus funds invoiced thru December 2012	[illegible]

Duke Energy Ohio
Calculation of Rider AU
Case No. 13-1141-GE-RDR
Attachment PAL-2
Index of Schedules

Duke Energy Ohio
Calculation of Rider AU
Case No. 13-1141
Revenue Requirement

Line No.		Balance 12/31/2011	Adjustment	Adjusted Balance 12/31/2011	Activity 2012	Cumulative thru 12/31/12	Reference
	Return on Investment						
	Total Rider AU Revenue Requirement						
1	Additions	$0	$0	$0	$12,416,689	$12,416,689	Schedule 2
2	Total Plant in-Service	0	0	0	12,416,689	12,416,689	
	Less: Accumulated Provision for Depreciation						
3	Depreciation Expense	0	0	0	289,845	289,845	Schedule 3
4	Total Accumulated Provision for Depreciation	0	0	0	289,845	289,845	
5	Net Regulatory Asset--Post In-Service Carrying Cost	0	0	0	264,283	264,283	Schedule 4
6	Net Deferred Tax Balance--PISCC Deferred Depreciation & CC and Deferred O&M & CC	0	0	0	(151,301)	(151,301)	Schedule 5
7	Deferred Taxes on Liberalized Depreciation	0	0	0	(2,385,331)	(2,385,331)	Schedule 6
8	Net Rate Base	0	0	0	9,854,495	9,854,495	
9	Approved Pre-tax Rate of Return	11.60%	11.60%	11.60%	11.60%	11.60%	Schedule 7
10	Annualized Return on Rate Base	0	0	0	1,143,121	1,143,121	
	Operating Expenses						
11	Annualized Provision for Depreciation For Additions				870,503	870,503	Schedule 8
12	Annualized Amortization of PISCC				19,885	19,885	Schedule 9
13	Deferred O&M Expense and Carrying Costs				2,506,914	2,506,914	Schedule 10
14	Annualized Property Tax Expense				279,882	279,882	Schedule 11
15	Reduction in Operation & Maintenance Expense				0	0	Schedule 12
16	**Annualized Revenue Requirement - Smart Grid**				4,819,302	4,819,302	
17	Gas Furnace Program Incentive Payments and Administrative Expenses				2,606,179	2,606,179	Schedule 13
18	**Annualized Revenue Requirement**				$7,425,481	$7,425,481	

Duke Energy Ohio
Calculation of Rider AU Gas Only Customer Credit

Revenue Requirement (Credit)

Line No.		Balance 12/31/2011	Activity 2012	Cumulative thru 12/31/12	Reference
	Return on Investment				
	Total Rider AU Revenue Requirement				
1	Additions	$0	$7,057,294	$7,057,294	Schedule 2
2	Total Plant in-Service	0	7,057,294	7,057,294	
	Less: Accumulation Provision for Depreciation				
3	Depreciation Expense	0	151,319	151,319	Schedule 3
4	Total Accumulated Provision for Depreciation	0	151,319	151,319	
5	Net Regulatory Asset--Post in-Service Carrying Cost	0	127,973	127,973	Schedule 4
6	Net Deferred Tax Balance--PISCC, Deferred Depreciation & CC and Deferred O&M & CC	0	(297)	(297)	Schedule 5
7	Deferred Taxes on Liberalized Depreciation	(1,361,821)	0	(1,361,821)	Schedule 6
8	Net Rate Base	(1,361,821)	7,033,651	5,671,830	
9	Approved Pre-tax Rate of Return	11.60%	11.60%	11.60%	Schedule 7
10	Annualized Return on Rate Base	(157,971)	815,904	657,932	
	Operating Expenses				
11	Annualized Provision for Depreciation For Additions		511,529	511,529	Schedule 8
12	Annualized Amortization of PISCC		9,741	9,741	Schedule 9
13	Deferred O&M Expense and Carrying Costs		2,196,074	2,196,074	Schedule 10
14	Annualized Property Tax Expense		155,119	155,119	Schedule 11
15	Reduction in Operation & Maintenance Expense		0	0	Schedule 12
16	**Annualized Revenue Requirement - Smart Grid**		3,688,377	3,530,405	
17	Gas Furnace Program Incentive Payments and Administrative Expenses		0	0	Schedule 13
18	**Annualized Revenue Requirement**		$3,688,377	$3,530,405	

Duke Energy Ohio
Calculation of Rider AU

Plant Additions by Month

Line No.		Plant Account	Balance at 12/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012 (1)	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Total Activity
	Test Rider AU Revenue Requirement																	
1	Electronic Data Processing Equipment	19101	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Communication Equipment Gas	19700	0		0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	Intangible Gas	20300	0		0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	Electronic Data Processing Equip Gas	20101	0		0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	Leased ARI Meters	17001	0		0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	Communication Equipment Leasehold	19700	0		0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	Total		0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Incremental																	Total Activity
8	Electronic Data Processing Equipment	19101			0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Communication Equipment Gas	19700			0	0	[illegible]	481,994	[illegible]	[illegible]	722,034	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	674,062	5,356,955
10	Intangible Gas	20300			0	0	0	0	253,841	[illegible]	[illegible]	2,604	[illegible]	[illegible]	[illegible]	[illegible]	159,254	452,219
11	Electronic Data Processing Equip Gas	20101			0	0	0	0	10,271	[illegible]	1,331	0	0	0	0	0	0	11,603
12	Leased ARI Meters	17001			0	0	0	0	39,431	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	331,460	565,194
13	Communication Equipment Leasehold	19700			0	0	0	0	[illegible]	[illegible]	[illegible]	322,870	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	Total		0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Plant Balances Net of Additions																	
15	Electronic Data Processing Equipment	19101	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Communication Equipment Gas	19700	0		0	0	0	4,407	9,296	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
17	Intangible Gas	20300	0		0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
18	Electronic Data Processing Equip Gas	20101	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Leased ARI Meters	17001	0		0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
20	Communication Equipment Leasehold	19700	0		0	0	0	0	1,340,364	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
21	Total		0		0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	Depreciation																	Total Activity
22	Electronic Data Processing Equipment	19101			0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Communication Equipment Gas	19700			0	0	0	4,407	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	Intangible Gas	20300			0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	Electronic Data Processing Equip Gas	20101			0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Leased ARI Meters	17001			0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	Communication Equipment Leasehold	19700			0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	Total		0		0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

(1) NOTE - Consolidated gas modules were deactivated in case 12-1682-GA-AIR. Add back to account 20101 in March of '12.

Duke Energy Ohio
Depreciation at Rider AU

Provision for Depreciation

Line No.		FERC Account	Balance at 12/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012
	For Rider AU - Business Improvement																
	Distribution																
1	Electronic Data Processing Equipment Computers	391.03	0		0	0	0	0	0	0	0	0	0	0	0	0	0
2	Communication Equipment Gas	397.00	0		0	0	0	0	5,044	14,201	26,115	32,631	41,115	36,711	47,843	114,115	111,494
3	Intangible Gas	303.00	0		0	0	0	0	0	0	9,905	9,993	14,179	14,152	21,368	25,322	30,732
4	Electronic Data Processing Equipment	391.00	0		0	0	0	0	0	0	173	173	538	216	900	1,487	1,472
5	Leased AMR Meters	370.01	0		0	0	0	0	0	0	125	126	621	187	311	1,124	1,115
6	Communication Equipment Computers	397.03	0		0	0	0	0	0	0	8,736	12,012	20,081	17,710	23,711	1,296	1,326
7	Total		32	32	64	32	32	32	33,940	34,231	33,175	34,276	36,934	31,114	31,707	32,854	32,854
	Intangible																Total Activity
8	Electronic Data Processing Equipment	391.01				0	0	0	0	0	0	0	0	0	0	0	0
9	Communication Equipment Gas	397.00				0	0	0	5,047	9,157	8,067	10,710	11,592	10,010	21,513	20,452	27,259	154,421
10	Intangible Gas	303.00				0	0	0	0	0	4,206	4,261	4,231	4,327	4,237	4,326	4,259	50,002
11	Electronic Data Processing Equipment	391.03				0	0	0	0	0	171	171	155	146	146	146	146	1,272
12	Leased AMR Meters	370.01				0	0	0	0	0	125	125	107	111	99	92	110	1,112
13	Communication Equipment Computer	397.03				0	0	0	0	0	6,326	6,326	13,412	11,273	22,439	22,511	26,705	313,694
14	Total					32	32	32	33,940	34,231	33,175	34,276	36,934	31,114	31,707	32,854	32,854	276,315
	Provision for Depreciation associated with PAID and Deferred Plant																
	Intangible																
15	Electronic Data Processing Equipment Computer	391.01			0	0	0	0	0	0	0	0	0	0	0	0	0
16	Communication Equipment Gas	397.00			0	0	0	0	0	52	104	156	157	1,675	3,188	3,749	4,224
17	Intangible Gas	303.00			0	0	0	0	0	0	3,206	6,495	12,176	17,104	21,394	25,730	30,652
18	Electronic Data Processing Equipment	391.03			0	0	0	0	0	0	0	0	0	0	0	0	0
19	Leased AMR Meters	370.01			0	0	0	0	0	0	125	251	372	503	731	1,703	2,113
20	Communication Equipment Computer	397.03			0	0	0	0	0	0	2,149	12,172	21,204	32,477	54,877	77,626	103,918
21	Total				32	32	32	32	32	52	5,584	19,074	33,909	51,759	80,290	108,808	140,907
	Intangible																Total Activity
22	Electronic Data Processing Equipment	391.01				0	0	0	0	0	0	0	0	0	0	0	0
23	Communication Equipment Gas	397.00				0	0	0	0	52	52	104	157	1,518	1,513	1,353	1,475	6,784
24	Intangible Gas	303.00				0	0	0	0	0	3,206	3,289	5,681	4,928	4,290	4,336	4,922	30,652
25	Electronic Data Processing Equipment	391.03				0	0	0	0	0	0	0	0	0	0	0	0	0
26	Leased AMR Meters	370.01				0	0	0	0	0	125	126	121	131	228	972	410	2,113
27	Communication Equipment Computer	397.03				0	0	0	0	0	2,149	10,023	9,032	11,273	22,400	23,149	26,292	103,918
28	Total					32	32	32	32	52	5,532	13,542	14,833	17,850	28,518	29,810	32,099	143,447

Line No.		FERC Account	Depreciation Percent
29	Electronic Data Processing Equipment	391.01	0.00%
30	Communication Equipment Gas	397.00	6.67%
31	Intangible Gas	303.00	20.00%
32	Electronic Data Processing Equipment	391.03	20.00%
33	Leased AMR Meters	370.01	10.00%
34	Communication Equipment Computer	397.03	10.00%

Duke Energy Ohio
Calculation of Rider AU

Net Regulatory Asset – Post In Service Carrying Cost

Line No.	Account	Description	Balance at 12/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Balance at 12/31/2012

Duke Energy Ohio
Calculation of Rider AU

Net Deferral Tax Calculation - PSIC and O&M

Line No.	Net Deferral Tax Balance - PSIC	Balance at 12/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	[illegible]
	Total Rider AU Revenue Requirement																
1	Ending Balance per Schedule 4	$0														[illegible]	
2	Tax Rate	[illegible]														[illegible]	
3	Cumulative ADIT (L1 * L2)	$0														[illegible]	
	Net Deferral Tax Balance - Deferred Depreciation and Carrying Cost																
4	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
5	Monthly Activity			0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
6	Ending Balance	$0	$0	$0	$0	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
7	Tax Rate	[illegible]														[illegible]	
8	Cumulative ADIT (L6 * L7)	$0														[illegible]	
	Net Deferral Tax Balance - Deferred O&M and Carrying Cost																
9	Beginning Balance	$0	$0	$0	$0	$0	$0	$0	$[illegible]	$[illegible]	$[illegible]	$[illegible]	($31,041)	($268,661)	($445,265)	($498,574)	
10	Monthly Activity				0	0	0	[illegible]	26,383	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
11	Ending Balance	$0	$0	$0	$0	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]	($31,041)	($268,661)	($445,265)	($498,574)	($156,829)	
12	Tax Rate	[illegible]														[illegible]	
13	Cumulative ADIT (L11 * L12)	$0														[illegible]	
	Net Deferral Tax Balance - PIPP, Vegetation Mgt, Storm Recovery Cost																
14	Ending Balance (as adjusted)															[illegible]	
15	Tax Rate															[illegible]	
16	Cumulative ADIT (L14 * L15)															[illegible]	
	Net Deferral Tax Balance - Deferred Depreciation and Deferred Post Approval O&M and Carrying Cost																
17	Beginning Balance		-	$0	$0	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
18	Monthly Activity			0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
19	Ending Balance		$0	$0	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
20	Tax Rate		[illegible]													[illegible]	
21	Cumulative ADIT (L19 * L20)		$0													[illegible]	
	Net Deferral Tax Balance - Deferred O&M and Carrying Cost Related to Cell Antennas and Underground Conversion Projects																
22	Beginning Balance		$0	$0	$0	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]	($115,692)	($375,591)	($568,391)	($627,693)		
23	Monthly Activity		$0	$0	$0	$0	[illegible]	[illegible]	($26,387)	($100,701)	($203,747)	($259,899)	($192,800)	($59,302)	[illegible]		
24	Ending Balance		$0	$0	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]	($115,692)	($375,591)	($568,391)	($627,693)	($289,386)		
25	Tax Rate		[illegible]													[illegible]	
26	Cumulative ADIT (L24 * L25)		$0													[illegible]	

Note: Current tax rate is as of March 2012 - adjust for case later

Duke Energy Ohio
Calculation of Rider AU

Deferred Taxes on Liberalized Depreciation

Line No.		Tax Year 2012 Vintage 2012 3-Year MACRS	5-Year MACRS	7-Year MACRS	10-Year MACRS	Total Vintage 2012	Total Tax Year 2012	Total AU (2012)
	Total Rider AU Revenue Requirement							
1	Total Expenditures	[illegible]	[illegible]	$11,191,110	[illegible]	$12,416,042	$17,416,023	$12,416,042
2	Book to Tax Basis Adjustments	0	0	0	0	0	0	0
3								
4	Tax Deductions over Life							
	Bonus Depreciation	0	0	0	0	0	0	0
5	Active Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	MACRS	0	0	0	0	0	0	0
7	Total Tax Depreciation Base	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	Tax Depreciation - MACRS	[illegible]	[illegible]	745,897	82,435	827,132	599,[illegible]	[illegible]
	Tax Depreciation - Bonus Bonus	0	0	0	0	0	0	0
9	Tax Depreciation - 100% Bonus	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	Total Tax Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Book Depreciation							
11	Total Book Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	Book Basis on AFUDC Equity	0		0	0	0	0	0
13	Book Originating Oil Exploration AFUDC Equity	0		0	0	0	0	0
14	Net Book Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	Tax Deductions in Excess of Book Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16								
17	Reversal Deferred Taxes @ 35.00%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	Federal Interest Rate	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

Deferred Taxes on Liberalized Depreciation Asset Intangible
Rate Base Work Papers

19	Total Expenditures	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	Book to Tax Basis Adjustments	0	0	0	0	0	0	0
21	Tax Basis Deductions over Life							
	Bonus Depreciation	0	0	0	0	0	0	0
22	Active Depreciation	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	MACRS	0	0	0	0	0	0	0
24	Total Tax Depreciation Base	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	Tax Depreciation - MACRS	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Tax Depreciation - Bonus Bonus	0	0	0	0	0	0	0
26	Tax Depreciation - 100% Bonus	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	Total Tax Depreciation	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Book Depreciation							
28	Total Book Depreciation	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	Book Basis on AFUDC Equity	0	0	0	0	0	0	0
30	Book Originating Oil Exploration AFUDC Equity	0	0	0	0	0	0	0
31	Net Book Depreciation	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32	Tax Deductions in Excess of Book Depreciation	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
33	Reversal Deferred Taxes @ 35.00%	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
34	Federal Interest Rate	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

Duke Energy Ohio
Calculation of Rider AU

Approved Rate of Return [e]

Line No.		Balance at 3/31/2007	Percent of Total	Rate	Weighted Cost	Tax Gross Up Factor	Pre-Tax Rate of Return
1	Long Term Debt	$1,752,639,770	44.24%	5.87%	2.60%	1.000000	2.60%
2	Preferred stock	-	0.00%	0.00%	0.00%	1.538462	0.00%
3	Common equity	2,209,036,300	55.76%	10.50%	5.85%	1.538462	9.00%
4	Total Capitalization	$3,961,676,070	100.00%		8.45%		11.60%

Note: [e] Per Stipulation approved in Case No. 07-589-GA-AIR.

Income before Income Tax	100.000%
Less. State Income Tax	0.000%
Income before Federal Income Tax	100.000%
Federal Income Tax (35% x 100%)	35.000%
Operating Income Percentage	65.000%
Gross Revenue Conversion Factor (1/0.6500)	1.5384615

Duke Energy Ohio
Calculation of Rider AU

Annualized Depreciation Expense on Plant in Service at Year End

Line No.	Depreciable Plant Basis	Plant Account	Balance at 12/31/2012	Depreciation Rate	Annualized Depreciation
	Total Rider AU Revenue Requirement				
1	Electronic Data Processing Equip Common	19101	0	20.00%	0
2	Intangible Gas	20300	408,219	20.00%	81,644
3	Electronic Data Processing Equip Gas	29101	11,176	20.00%	2,235
4	Communication Equipment Gas	29700	5,599,936	6.67%	373,516
5	Leased AMI Meters	17001	866,164	5.10%	44,174
6	Communication Equipment Common	19700	5,531,194	6.67%	368,931
7	Total		$12,416,689		$870,500
	Annualized Depreciation Associated with PMO and Common Plant Additions				
8	Electronic Data Processing Equip Common	19101	0	20.00%	0
9	Intangible Gas	20300	408,219	20.00%	81,644
10	Electronic Data Processing Equip Gas	29101	0	20.00%	0
11	Communication Equipment Gas	29700	251,717	6.67%	16,790
12	Leased AMI Meters	17001	866,164	5.10%	44,174
13	Communication Equipment Common	19700	5,531,194	6.67%	368,931
14	Total		$7,057,294		$511,539

Duke Energy Ohio
Calculation of Rider AU

Annualized Amortization of PISCC

Line No.		Regulatory Asset Deferrals	Balance at 12/31/2012	Amortization Rate	Annualized Amortization
	Total Rider AU Revenue Requirement				
1	018636x	Electronic Data Processing Equip Common	0	20.00%	0
2	018636x	Intangible Gas	9,699	20.00%	1,940
3	018636x	Electronic Data Processing Equip Gas	396	20.00%	79
4	018636x	Communication Equipment Gas	136,522	6.67%	9,106
5	018636x	Leased AMI Meters	5,590	5.10%	285
6	018636x	Communication Equipment Common	112,076	6.67%	7,475
7		Total	$264,283		$18,885
	Annualized Amortization of PISCC Associated with PMO and Common Plant				
	Total Rider AU Revenue Requirement				
8	018636x	Electronic Data Processing Equip Common	0	20.00%	0
9	018636x	Intangible Gas	9,699	20.00%	1,940
10	018636x	Electronic Data Processing Equip Gas	0	20.00%	0
11	018636x	Communication Equipment Gas	608	6.67%	41
12	018636x	Leased AMI Meters	5,590	5.10%	285
13	018636x	Communication Equipment Common	112,076	6.67%	7,475
14		Total	$127,973		$9,741

Duke Energy Ohio
Calculation of Rider AU

Regulatory Asset – Deferred O&M Expenses, Carrying Cost and Amortization

Line No.	Account	Description	Balance at 1/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Balance at 12/31/2012
		Regulatory Asset - Deferred O&M Expenses																
1	182360	Qtr III - M&E - Transmission & Info Tech	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	182360	Qtr III - M&E - Transmission & Info Tech	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	182360	PPD O&M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	Book Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	Book Depreciation - Carrying	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7		Cumulative Regulatory Asset Deferred	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
		Deferred Asset Amortization																
8	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	Book Depreciation	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13		Cumulative Regulatory Asset Amortization	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
		Regulatory Asset Deferred O&M Expenses Carrying Cost																
14	[illegible]	Deferred Cost Rate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	Deferred O&M Cumulative PPD O&M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	Book Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	Book Depreciation - Carrying	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19		Cumulative Regulatory Asset Deferred	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
		Regulatory Asset Total																
20	[illegible]	Deferred O&M Costs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	Deferred O&M Cumulative PPD O&M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	Book Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	Book Depreciation - Carrying	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25		Cumulative Regulatory Asset Total	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

		2008	2009	2010	2011	Total
[illegible]	Deferred O&M Costs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Deferred O&M Cumulative PPD O&M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Book Depreciation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Book Depreciation - Carrying	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
						[illegible]

Duke Energy Ohio
Calculation of Rider AU

Regulatory Asset – Deferred O&M Expenses, Carrying Cost and Amortization

Line No.	Account	Description	Balance at 12/31/2011	Adjustment	Adjusted Balance at 12/31/2011	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Balance at 12/31/2012
		Regulatory Asset – Deferred O&M Expenses, Carrying Cost and Amortization (Rider AU)																
		Regulatory Asset – Deferred O&M Expenses																
1	182300	Deferred O&M - Water Contamination [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	*182300	O&M OFS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	18[illegible]	Book Depreciation - [illegible] and Carrying	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5		Cumulative Regulatory Asset Balance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
		Regulatory Asset – Amortization																
6	*[illegible]	Deferred O&M - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	4[illegible]	Book Depreciation - Delivery	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9		Cumulative Regulatory Asset Amortization	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
		Regulatory Asset Deferred O&M Expenses (Net Book Value)																
10	182300	Deferred O&M - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	*182300	Book Depreciation - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13		Cumulative Regulatory Asset-Deferred	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
		Regulatory Asset Total																
14	182300	Deferred O&M - Carrying Cost	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	*182300	Book Depreciation - [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16		Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17		Cumulative Regulatory Asset Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Carrying Cost Rate 3.87%

Duke Energy Ohio
Calculation of Rider AU

Annualized Property Taxes

Line No.		Vintage Year 2012 15-Year General Plant	Vintage Year 2012 30-Year Distribution Plant	Total
	Property Tax Expense (Amounts Exclude Post In-Service Carrying Costs)			
	Total Rider AU Revenue Requirement			
1	Current Year Investment	$11,142,306	$866,164	$12,008,470
2	Less: AFUDC In-Service	0	0	
3	Net Cost of Taxable Property	11,142,306	866,164	
4	Percent Good *	98.7%	98.5%	
5	True Value of Taxable Property (excluding PISCC)	10,774,610	851,439	
6	Valuation Percent	25%	25%	
7	Total Taxable Value	2,693,653	212,860	
8	Retired Net Taxable Plant End of Year (@ 15%)	-	-	
9	Net Property Tax Valuation	2,693,653	212,860	
10	Property Tax Valuation	$258,985	$20,497	$279,482
	Annualized Property Taxes Associated with PSIO and Common Plant			
11	Current Year Investment	$5,782,911	$866,164	$6,649,075
12	Less: AFUDC In-Service	0	0	
13	Net Cost of Taxable Property	5,782,911	866,164	
14	Percent Good *	98.7%	98.5%	
15	True Value of Taxable Property (excluding PISCC)	5,592,075	851,439	
16	Valuation Percent	25%	25%	
17	Total Taxable Value	1,398,019	212,860	
18	Retired Net Taxable Plant End of Year (@ 15%)	-	-	
19	Net Property Tax Valuation	1,398,019	212,860	
20	Property Tax of Valuation	$134,622	$20,497	$155,119
21	Ohio Property Tax Calculation:			
22	Average Property Tax Rate per $1,000 of Valuation	96.205		

* From Gas Company Annual Report
Schedule C - 15 Year Class Life (General Plant)
Schedule C - 30 Year Class Life (Distribution Plant)

Duke Energy Ohio
Calculation of Rider AU

Incremental O&M Savings

Line No.		Incremental (Savings)
1	Amount Per Stipulation in Case No.10-2326-GE-RDR	-2,026,000
	Amount included in base rates per Case No. 12-1685-GA-AIR	-2,026,000
	Net	0

Duke Energy Ohio
Calculation of Rider AU

Gas Furnace Program Expenses

Line No.	Description	1/31/2012	2/29/2012	3/31/2012	4/30/2012	5/31/2012	6/30/2012	7/31/2012	8/31/2012	9/30/2012	10/31/2012	11/30/2012	12/31/2012	Total 12 months 12/31/2012
1	Incentive Rebates (Account 592[illegible])	$[illegible]	$[illegible]	$146,[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$175,400	$[illegible]	$[illegible]	$287,[illegible]	$2,[illegible]
2	Administrative Expenses (Account 1[illegible])	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	Total	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$[illegible]

		1/31/2013	2/28/2013	3/31/2013	Total 3 months 3/31/2013	Total 15 months 3/31/2013
1	Incentive Rebates (Account [illegible])	$145,[illegible]	$[illegible]	$[illegible]	$[illegible]	$2,286,082
2	Administrative Expenses (Account 1[illegible])	[illegible]	[illegible]	[illegible]	[illegible]	$300,486
3	Total	$[illegible]	$[illegible]	$[illegible]	$[illegible]	$2,[illegible]

Duke Energy Ohio
Calculation of Rider AU

Charge Per Bill

Line No.		Total	Source
1	2012 Rider AU Revenue Requirement - Smart Grid	$4,819,302	Schedule 1
2	2012 Rider AU Revenue Requirement - Gas Furnace	$2,606,179	Schedule 1
3	Total Rider AU Revenue Requirement	$7,425,481	
4	Customer Bills	5,018,955	Internal Company Data
5	Rider AU Charge - Per Bill	$1.48	Line 4 ÷ Line 5
	Credit for PMO and Common Plant and Expenses		
6	Total Rider AU Revenue Requirement - Gas Only Customer	$3,530,405	Schedule 1A
7	Customer Bills	5,018,955	Internal Company Data
8	Rider AU Charge - Per Bill	$0.70	Line 6 ÷ Line 7

Duke Energy Ohio Exhibit_____

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc. to Adjust Rider DR-IM and Rider AU for 2012 SmartGrid Costs.	)))	Case No. 13-1141-GE-RDR

DIRECT TESTIMONY OF

MARK V. WIMBERLY

ON BEHALF OF

DUKE ENERGY OHIO, INC.

June 28, 2013

TABLE OF CONTENTS

I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Mark V. Wimberly, and my business address is 400 South Tryon Street,
3 Charlotte, North Carolina, 28201.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services, LLC, an affiliate of Duke Energy
6 Ohio, Inc. (Duke Energy Ohio or Company), as General Manager, Program Governance
7 and Management.

8 **Q. WHAT IS YOUR PRIMARY RESPONSIBILITY AS GENERAL MANAGER,**
9 **PROGRAM GOVERNANCE AND MANAGEMENT?**

10 A. As General Manager, Program Governance and Management, I am currently responsible
11 for the overall program and project governance structure, financial reporting, risk
12 management, and benefit realization. Prior to the Duke Energy Corp./Progress Energy
13 Corp. merger, I was the Vice President - South Coastal Region responsible for the on-
14 going construction, operations, and maintenance of the distribution grid in Progress
15 Energy Florida.

16 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL AND EDUCATIONAL**
17 **BACKGROUND.**

18 A. I received a Bachelor of Science Degree in Business Administration from Auburn
19 University in 1980. I have been employed in the electric utility industry for
20 approximately 33 years. I have worked in various areas of the business including
21 distribution operations and maintenance, legislative and regulatory affairs, project
22 development, finance, and administration.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO?

A. No.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. I will discuss the status of Duke Energy Ohio's Grid Modernization program structure and how grid modernization is managed and developed within the Duke Energy organization.

II. DUKE ENERGY OHIO'S GRID MODERIZATION PROGRAM STRUCTURE

Q. PLEASE DESCRIBE RECENT CHANGES IN THE GRID MODERNIZATION TEAM AS A RESULT OF THE DUKE ENERGY PROGRESS ENERGY MERGER.

A. Employees working with grid modernization for the new merged Duke Energy Corp. are responsible for major grid modernization project delivery. The team is designed around four distinct competencies: 1) Strategy Alignment and Development; 2) Engineering and Technical Standards; 3) Program Management and Governance; and 4) Project Execution.

The Strategy Alignment and Development function coordinates with leaders in functional areas across the business such as Transmission, Distribution and Customer Services to identify and align strategic needs and develop integrated plans. For example, Distribution Operations Services is responsible for many small and repeatable projects such as substation upgrades and line relocations, while the Strategy Alignment and Development functional area of the Grid Modernization team helps identify large projects that often include newer advanced technologies that are complex in nature. New and

proven technologies are developed into business cases within the Strategy Alignment and Development function.

The Engineering and Technical Standards team serves as subject matter experts and works with Distribution Engineering and Information Technology to ensure that project architecture and design standards are aligned.

The Program Management and Governance team, in compliance with the Corporate Project Management Center of Excellence, ensures that corporate policies, standards and governance procedures are effectively adapted and applied in the execution of projects. The team also measures the achievement of business case benefits and is responsible for program risk management.

The Project Execution team is responsible for successfully managing the delivery of project value from planning through project close. Each project is supported by resources that focus on Business Process Management (BPM) and Change Management (CM). These BPM and CM resources are responsible for developing and executing a plan, with engagement with the impacted business unit(s), and to ensure adoption of the project deliverables.

Q. PLEASE DESCRIBE THE PROCESSES THAT DUKE ENERGY OHIO HAS PUT INTO PLACE TO TRACK BENEFITS CREATED BY THE GRID MODERNIZATION INVESTMENT IN OHIO.

A. An extensive tracking process has been developed to track the achievement of benefits identified in the business cases for projects in Ohio. A series of non-financial metrics, related to reliability, efficiency and customer impact have been developed and as agreed, will be submitted annually to the Ohio Staff.

1 **Q. WHAT CHANGES OR PROCESSES HAVE BEEN IMPLEMENTED TO**
2 **ENSURE THE NEW GRID MODERNIZATION INVESTMENTS IN OHIO ARE**
3 **EFFECTIVELY INTEGRATED INTO OPERATIONS?**
4 A. A dedicated organization of BPM and CM resources has been established to support our
5 Grid Modernization Project portfolio. BPM and CM are responsible for identifying gaps
6 between current and future state, process design and documentation, development of
7 training, and an end-to-end communication strategy to support the transition. These team
8 members engage the business process owners and subject matter experts early on, and
9 throughout the project lifecycle, to successfully integrate and implement the project and
10 required process changes into business operations.
11 Q. **PLEASE DESCRIBE THE PROJECT LIFECYCLE METHODOLOGY USED BY**
12 **THE GRID MODERNIZATION DEPARTMENT FOR ITS PROJECTS.**
13 A. As the Grid Modernization Strategy Planning and Development group scans the
14 technology horizon and assesses potential investments in projects that will improve grid
15 reliability, grid efficiency, or improve customer access, they include the eventual asset
16 owner from the business in the development process. The project development team and
17 the eventual business asset manager together are responsible for identifying the benefits
18 that will be realized by virtue of the investment and accountable for delivering the
19 benefits once the project is commissioned and turned over to the business to operate and
20 maintain. Once the benefits are identified, the project development team and the business
21 asset manager work together to establish metrics that will measure benefit realization. As
22 the project progresses through the development lifecycle and is turned over to Project
23 Execution, at each stage the benefits and on-going costs must be assessed and updated

through a collaborative effort between the project team and the ultimate business asset manager within the business.

The benefits and on-going costs must be reviewed and approved by our Program Execution Review Team, the governing oversight body for Grid Modernization which includes key stakeholders throughout the Duke Energy organization. By working together throughout the project development lifecycle, the project team and the business asset manager are tasked with evaluating how the investment can be leveraged beyond the project to continually drive improvement in grid reliability, grid efficiency, and/or customer satisfaction. Once the project is commissioned, the business owner continually evaluates how the project can be leveraged with existing assets or how investments in additional assets or improved processes could drive greater benefits for system operations.

Q. **WILL THE INVESTMENT LIFECYCLE DESCRIBED ABOVE CREATE A CONTINUOUS IMPROVEMENT PROCESS FOR DUKE ENERGY OHIO?**

A. Yes. The Grid Modernization team utilizes a project and program governance structure based on the Project Management Institute principles. The Project Management Institute is a professional organization that is widely recognized throughout the world that provides guidelines, rules and characteristics for project, program and portfolio management. This governance oversight is designed to improve project and program performance. Within this governance process, Grid Modernization has developed and implemented a Benefit/Cost Identification and Realization process. Early in the approval process, during the business case phase, on-going benefits and costs are defined which will occur beyond project turnover. At each approval stage (these are called gates) the

on-going benefits and costs are assessed and modified based on more detailed estimates of project cost and performance. These updated estimates are presented for review and approval at each gate. Requiring benefit and cost identification refinement at each stage of the project lifecycle develops a culture of continuous improvement within the organization.

Q. IS THE DUKE ENERGY PROGRAM STRUCTURE ALIGNED TO BEST DEVELOP AND IMPLEMENT GRID MODERIZATION TO BENEFIT DUKE ENERGY CUSTOMERS?

A. Yes, the program structure is designed and implemented to take full advantage of internal resources to provide give Duke Energy Ohio customers with optimization of their grid modernization investment.

III. CONCLUSION

Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

A. Yes.