### FILE

# BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

A COETURE	
ZIDE NO.	CHOT HIS SIV
Olylon	ANS BIV
PUCO	T10:59
(7)	•

In the Matter of the Application of	)	
Columbus Southern Power Company for	)	
Approval of its Electric Security Plan; an	)	Case No. 08-917-EL-SSO
Amendment to its Corporate Separation	)	
Plan; and the Sale or Transfer of Certain	)	
Generating Assets	)	
In the Matter of the Application of	)	
Ohio Power Company for Approval of its	)	Case No. 08-918-EL-SSO
Electric Security Plan; and an Amendment	)	
to its Corporate Separation Plan	j	

Prepared Testimony
of
Gregory C. Scheck
Policy and Market Analysis Division
Public Utilities Commission of Ohio

Staff Exhibit \_\_\_\_\_

November 10, 2008

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.

Date Processed //-/0-08

1	1.	Q.	Please state your name, employer and business address.
2		A.	My name is Gregory C. Scheck. I am employed by the Public Utilities Commission
3			of Ohio, 180 East Broad Street, Columbus, Ohio 43266-0573.
4			
5	2.	Q.	What is your current position at the Commission?
6		A.	I am a Utilities Specialist in the Policy and Market Analysis Division of the Energy
7			and Environment Department. I am responsible for analyzing issues and providing
8			recommendations pertaining to demand forecasting, demand side management,
9			energy efficiency, demand reductions, and advanced metering infrastructure.
0			
1	3.	Q.	What are your qualifications as they relate to your testimony in this proceeding?
12		A.	I have worked at the Commission since 1985 in various capacities. Most of that
13			time I have spent reviewing and evaluating demand forecasts, demand side
L <b>4</b>			management applications, and advanced metering issues.
15			
6	4.	Q.	What is the purpose of your testimony in this proceeding?
17		A.	I will address the Applicants' ESP filing with respect to its proposed AMI Phase 1
8			Smartgrid deployment and the energy efficiency programs to meet the companies'
9			annual energy efficiency and peak demand reduction targets.
20			
21	AMI	Phase 1	

What is your knowledge or understanding of the companies' proposed Smartgrid

Q.

plan?

5.

22

- A. The Applicants plan to deploy a multi-year Smartgrid, known as gridSmart over a seven to ten year period. The initial part of this deployment is characterized as Phase 1 of the project which will constitute an advanced meter rollout for approximately 110,000 customers in the northeast quadrant of central Ohio over the ESP period. The Staff agrees with the companies that there will be a great deal of experience gained with this initial deployment.
- 8 6. Q. What are the expected costs of deployment for the companies' proposed AMI Phase9 1?
- 10 A. Based on the companies' estimated costs put forward in company witness Ms.

  Slonecker's testimony, Phase 1 deployment will be approximately \$109 million.

  These costs will include three components: 1) advanced meters, 2) distribution

  automation, and 3) a Home Area Network (HAN). I will be responding to only

  two of these components, the advanced meters and the home area network or HAN.
  - 7. Q. What portion of the gridSmart costs are associated with advanced metering?
- A. The companies have estimated costs for the Phase 1 advanced meters at approximately \$46 million which also includes the telecommunications, information technology infrastructure and O&M costs associated with the advanced meters. The direct meter costs including the overhead are approximately \$36.5 million which is roughly equivalent to \$333 per endpoint.

23 8. Q. Do you consider these costs to be reasonable?

7

15

16

- A. Yes, but they would be on the higher end of reasonableness. Staff is somewhat concerned about the level of overhead costs associated with the meter acquisition at 48% of the meter costs. The Staff would recommend that those costs associated with the overhead of meter purchasing be reviewed before approval to insure that they are not duplicative of the overhead meter purchasing costs that are already part of the companies' current rate recovery.
- 8 9. Q. What costs are associated with the Home Area Network (HAN)?

- A. According to company witness Ms. Slonecker, the total costs associated with the

  Home Area Network are expected to be approximately \$14.5 million. Again, the

  Staff is as concerned with the percentage of overhead costs associated with

  purchasing the Home Area Network equipment as with the advanced meters.
- 14 10. Q. Presently, do you have any concerns with respect to the companies' AMI pilot program?
- 16 A. Yes. As company witness Ms. Slonecker has stated, the companies' are expecting
  17 to expend \$109.7 million for the gridSMART Phase 1 investment. But the
  18 estimated operational savings for the first three years is expected to be only about
  19 \$2.7 million. The net difference is approximately \$108.9 million. From the Staff's
  20 perspective, the relative amount of operational savings is quite small compared to
  21 the amount of expenditures for the Smartgrid initiative over the ESP period.

- 1 11. Q. How do the Companies plan to recover the gridSMART estimated net costs?
- A. Company witness Mr. David Roush calculated a gridSMART cost recovery rquest for CSP over the ESP period of approximately \$64.5 million as a part of the overall distribution rate in his direct testimony (Exhibit DMR-4). The remainder of the capital costs will be recovered over the expected lifetime of the capital investment, which will vary anywhere from 5 to 30 years depending on the equipment life. The
- total phase 1 gredSMART capital costs, including carrying charges, is expected to
- be approximately \$134.1 million.

- 10 12. Q. Why is the Staff making a point about the costs associated with the Company's phase 1 gridSMART deployment?
- 12 A The main point the Staff is making with respect to the gridSMART Phase 1 costs
  13 relate to the minimal risks the companies are undertaking with this investment
  14 relative to the minimal potential gain for ratepayers.
- 16 13. Q. What would you recommend the Commission do with respect to the companies'
   Phase 1 gridSMART?
- I would recommend that the companies' proposed Phase 1 gridSMART investment
  be pulled out of the general distribution rates and be set aside in a separate rider, set
  at \$0.00 dollars, until a further, more detailed investigation can be completed.
  Based on company witness Ms. Sloneker, the companies did not attempt to quantify
  any customer or societal benefit with respect to its smartGRID analysis. Without
  any customer or societal benefits associated with the companies' smartGRID

analysis, it is not clear whether the companies truly want to assist customers in to make wiser energy choices. In the event that the Commission recommends the companies go forward with its Phase 1 gridSMART proposal, the Staff would recommend that there should be an annual cost and performance review of this initiative.

14. Q. Are there any other issues that you have with the companies' Phase 1 gridSMART initiative?

A. Yes, according to company witness Ms. Sloneker's response to Staff's Data Request 5-11, the companies have not determined the specific tariff and rate provisions that it will offer once the enabling gridSMART technology is in place. The problem with this approach is that customers who have already received the enabling smartgrid technology, will likely have to wait until the companies have fully deployed its Phase 1 before being able to take advantage of any time-differentiated rate or other dynamic pricing opportunities. By delaying the offering of time-differentiated rates and other forms of dynamic pricing, customers would not likely be able to avail themselves of many of the benefits associated with the companies' smartgrid investment they are paying for. I would recommend that the companies offer some form of a Critical Peak Pricing Rebate for residential customers, and offer some form of a hedged price for commercial customers, for a fixed amount of the customers demand. The residual demand could be tied to a day-ahead market-based price. In this way, customers would know in advance that

they would pay a fixed amount for a portion of their consumption, but could pay more or less depending what they did on the margin.

3

4

5

6

7

8

9

1

2

In addition, the Companies intend to deploy a Home Area Network only to those that have central air conditioning and elect to participate in tariff offerings that require the use of a programmable communicating thermostat. Staff does not see the need for this restriction. Rather, if it is technically feasible, any customer who would like to have a programmable communicating thermostat to control other electrical end-use appliances should be able to have one.

10

11

### **Energy Efficiency and Peak Demand Reductions**

12

13

15. Q What is your opinion of AEP's proposed DSM/Enegy Efficiency Programs?.

A. Staff approves of the companies' efforts to accelerate the deployment of their 14 15 proposed DSM/Energy Efficiency programs to meet the companies' overall annual energy efficiency and peak demand reduction targets as put forth in SB 221. 16 However, based on the initial cost analysis relative to the benefits provided in 17 company witness Ms. Slonecker's testimony, it appears that a number of the 18 19 programs are quite expensive and may not even pass the Total Resource Cost Test as specified in the California Standard Practice Manual, 2002. It is likely not 20 21 prudent for the companies to spend a great deal of money on energy efficiency and peak demand reduction programs that are deemed not to be cost-effective before 22 even deploying them. The Staff would therefore strongly recommend that the 23

companies preliminarily evaluate and aggressively pursue those measures and programs that are most cost-effective first with respect to the Total Resource Cost Test and, secondarily, the Ratepayer Impact Measure Test. Even though the companies have aggressive benchmarks to meet, it would more prudent to pursue those measures and programs that are more cost-effective with respect to avoiding supply alternatives (i.e. generation, transmission and distribution future investments) than those measures and programs that are not. The Staff approves of the companies conducting a Market Potential Study which should help direct the companies and the collaborative's efforts in this area.

- 11 16. Q. The companies have stated that they are evaluating opportunities to improve the
  12 energy efficiency of their generating, transmission, and distribution facilities in
  13 terms of meeting its energy efficiency and peak demand benchmarks. Do you have
  14 an opinion with respect to incorporating the efficiency improvements to be
  15 credited towards the companies annual benchmarks?
  - A. Yes, to the extent that such improvements can be demonstrated to bring benefits Ohio's electric retail customers, the Staff could certainly consider crediting the companies for these type of investments. However, in the case of generation investments, the benefits may or may not accrue to Ohio's retail customers, therefore making it questionable to give such investments credit towards meeting the companies' annual benchmarks.

- 1 17. Q. The companies put forward four different economic growth adjustments in determining the companies' three year average of baseline energy sales and peak 2 demand for the calendar years 2006 through 2008. The three year average baseline 3 determinations are used as the starting point to determine each companies' annual 4 benchmarks for energy efficiency and peak demand reductions for calendar year 5 6 2009. Do you agree with Mr. Baker's recommended adjustments to the companies' baselines? 7
- Not entirely. Mr. Baker would like for the companies to be able to take an A. 8 adjustment credit for the sales and peak load associated with the acquisition of the 9 former Monongahela Power Company's service territory by Columbus Southern 10 While it may be construed that this acquisition may have had some 11 economic issues associated with it, this acquisition was not economic development 12 in the true sense in that this particular customer load would have not been retained 13 because of some inaction by the company. Rather CSP was responding to a request 14 15 to help those customers in that part of the state that were being served electricity by another party. If CSP did not serve them it is highly unlikely that no one else would 16 have. In addition, CSP acquired this load outside of the three year average for 17 determining the baselines; (i.e. before calendar year 2006) and, therefore, would not 18 be considered a reasonable adjustment by the Staff. 19
- 21 18. Q. What about the other adjustments that Mr. Baker has recommended?

A. The Staff would have to consider whether the other adjustments occurred during the baseline period (calendar years 2006 through 2008). In addition, the Staff would

have to evaluate whether such adjustments were due to economic development efforts made by the Companies such as the Ormet and Hannibal Real Estate LLC. Loads.

4

5

6

7

ì

2

3

- 19. Q. Has the Staff determined a preliminary estimate of the KWh savings and peak demand reductions that should be achieved by the companies for the calendar year 2009?
- Yes. According to Ohio Rev. Code § 4928.66 (2008), electric distribution utilities A. 8 under the jurisdiction of this Commission are required to implement energy 9 efficiency programs that will achieve energy savings equivalent to at least .3 of one 10 percent of the Companies' total annual average normalized kilowatt hour sales for 11 the preceding three years to their customers in this state for the calendar year 2009. 12 In addition, each electric distribution utility must implement peak demand 13 reduction programs designed to achieve a 1 percent reduction in the Companies' 14 15 peak demand for the calendar year 2009. The baseline for energy savings is determined from the average total kilowatt hours the electric distribution utility sold 16 in the preceding three calendar years, while the baseline for the peak demand 17 reduction is determined from the average peak demand on the utility in the 18 preceding three years. 19

20

21

22

23

According to the companies' energy sales for the AEP-Ohio Service territories in Ohio for the calendar years 2006 through 2008 the Staff has developed the estimates in for the three year average of sales and peak load to retail end use

customers, (see Total End-Use Delivery, Column 6, PUCO Forms FE4-D1 and EDU System Seasonal Demand Forecast, Summer, PUCO Forms FE4-D4, Columbus Southern Power and Ohio Power Companies 2008 Long-Term Forecast Report). Those estimates are contained in Exhibit GCS-1 and Exhibit GCS-2. The historical sales and peak data have not been weather normalized, but it is unlikely that the weather normalized historical data will alter the sales and peak demand values substantially. The Attachments provide an estimate of the energy and peak demand reduction benchmarks that the companies must meet for calendar year 2009.

20.

A.

Q. What is the Staff's view with respect to including the energy savings and peak demand reductions from mercantile customers that commit their demand response or other customer-sited capabilities existing or new for integration into the electric distribution utility's demand-response, energy efficiency, or peak demand reduction programs?

The Staff is not opposed to including the energy savings and peak demand reduction efforts from mercantile customers toward adjusting the electric utility's baseline. However, in order for such efforts to count the Staff recommends that the electric distribution utilities make a case-by-case submittal to the Commission to receive such credits. In addition, the mercantile customers demand response, energy efficiency, and peak demand reduction programs would need to commit those capabilities to the electric distribution utility's energy efficiency and peak demand reduction programs for integration.

Currently, a number of AEP retail mercantile customers participate in one or more
of PJM's demand response programs. The Staff is not discouraging such efforts,
but believes that such RTO programs are not committed for integration into AEP
Ohio's distribution utilities energy efficiency and peak reduction programs.
Therefore, the Staff does not believe that such efforts should be credited towards
reducing the electric distribution utilities annual benchmarks, and that retail
customers who have made such arrangements should not receive an exemption
from the AEP Ohio's EDUs energy efficiency cost recovery mechanism.

- 11 21. Q. What is the Staff's view with respect to crediting AEP Ohio's distribution utilities
  12 interruptible programs towards the annual peak demand reduction targets?
- A. Staff believes that such reductions must actually occur and be measured retrospectively in order to receive such credit.

- 22. Q. Does this conclude your testimony?
- 17 A. Yes, it does.

# Exhibit GCS-1

	Ohio		AEP
	Power	CSP	Ohio
	Total	Total	Total
	<b>End-use</b>	End-use	End-use
Year	Delivery	Delivery	Delivery
2006	25,262,084	19,567,156	44,829,240
2007	27,727,743	22,009,241	49,736,984
2008	27,965,013	22,514,588	50,479,601
SUM	80,954,840	64,090,985	145,045,825
3 Year Average	26,984,947	21,363,662	48,348,608
2009 Mwh Energy			
Target	80,955	64,091	145,046

## Exhibit GCS-2

Ohio Power	CSD	AEP Ohio
rower	CSF	Omo
EDU Seasonal	EDU Seasonal	EDU Seasonal
Peak Load	Peak Load	Peak Load
4,950	4,425	9,375
5,167	4,723	9,890
4,919	4,159	9,078
15,036	13,307	28,343
5,012	4,436	9,448
50.12	44.36	94.48
	Power  EDU Seasonal Peak Load  4,950 5,167 4,919  15,036  5,012	Power CSP  EDU Seasonal EDU Seasonal Peak Load  4,950 4,425 5,167 4,723 4,919 4,159  15,036 13,307  5,012 4,436

#### PROOF OF SERVICE

I hereby certify that true copy of the foregoing Testimony submitted on behalf of the Staff of the Public Utilities Commission of Ohio, was served by regular U.S. mail, postage prepaid, hand-delivered, and/or delivered via electronic mail, upon the following parties of record, this 10<sup>th</sup> day of November, 2008.

Werner L. Margan

#### Parties of record:

Marvin I. Resnik Steven T. Nourse American Electric Power company 1 Riverside Plaza Columbus, OH 43215

Daniel Conway Porter Wright Morris & Arthur LLP 41 South High Street Columbus, OH 43215

Attorneys for Columbus Southern Power company and Ohio Power company

C. Todd Jones
Christopher L. Miller
Gregory H. Dunn
Andre T. Porter
Schottenstein Zox & Dunn Co., LPA
250 West Street
Columbus, Ohio 43215
Attorneys for the Association of
Independent Colleges and Universities of
Ohio ("AICUO")

Sally Bloomfield

Terry Etter
Maureen Grady
Michael E. Idzkowski
Richard Reese
Jacqueline Roberts
Ohio Consumers' Counsel
10 W. Broad Street, Suite 1800
Columbus, OH 43215

Attorneys for The Ohio Consumers' Counsel

M. Howard Petricoff
Stephen M. Howard
Vorys, Sater, Seymour and Pease LLP
52 East Gay Street
P. O. Box 1008
Columbus, Ohio 43216-1008
&
Cynthia A. Fonner
Senior Counsel
Constellation Energy Group, Inc.
550 W. Washington St., Suite 300

14

Chicago, IL 60661

Bricker & Eckler LLP 100 South Third Street Columbus, OH 43215-4291 Attorney for The American Wind Energy Association, Wind on Wires, and Ohio Advanced Energy Attorneys for Constellation NewEnergy, Inc. and Constellation Energy Commodities Group, Inc.

Michael R. Smalz Ohio State Legal Service Assoc. 555 Buttles Avenue Columbus, OH 43215 Attorney for the Appalachian People's Action Coalition (APAC) Joseph M. Clark
Lisa McAlister
Samuel C. Randazzo
McNees, Wallace & Nurik
21 East State Street, 17th Floor
Columbus, OH 43215-4228
Attorneys for Industrial Energy Users-Ohio

M. Howard Petricoff
Stephen M. Howard
Vorys, Sater, Seymour and Pease LLP
52 East Gay Street
P. O. Box 1008
Columbus, Ohio 43216-1008
Attorneys for ConsumerPowerline, Direct
Energy Services, LLC, EnerNOC, Inc.,
Ohio Association of School Business
Officials, Ohio School Boards Association,
and Buckeye Association of School
Administrators

Douglas M. Mancino
McDermott Will & Emery LLP
2049 Century Park East, Suite 3800
Los Angeles CA 90067
&
Grace C. Wung
Mcdermott Will & Emery LLP
600 Thirteenth Street, N.W.
Washington, DC 20005
Attorneys for the Wal-Mart Stores East LP,
Sam's Club East, and Macy's Inc.
(collectively, the "Commercial Group")

M. Howard Petricoff
Stephen M. Howard
Vorys, Sater, Seymour and Pease LLP
52 East Gay Street
P. O. Box 1008
Columbus, Ohio 43216-1008
&
Bobby Singh
Integrys Energy Services Inc
300 West Wilson Bridge Road, Suite 350
Worthington, OH 43085
Attorneys for Integrys Energy Services, Inc.

Douglas M. Mancino
McDermott Will & Emery LLP
2049 Century Park East, Suite 3800
Los Angeles CA 90067
&
Gregory K. Lawrence
Mcdermott Will & Emery LLP
28 State Street
Boston Ma 02109
Attorneys for Morgan Stanley Capital
Group, Inc

Matthews White Chester Wilcox & Saxbe LLP 65 East State Street, Suite 1000 Columbus, OH 43215 Craig Goodman
President, National Energy Marketers
Assoc.
3333 K Street, N.W., Suite 110

#### Attorney for the Kroger company

David Boehm Michael Kurtz Boehm, Kurtz & Lowry 36 East Seventh Street, Suite 1510 Cincinnati, OH 45202-4454 Attorney for Ohio Energy Group

Larry R. Gearhardt
Ohio Farm Bureau Federation
280 N. High Street
P.O. Box 182383
Columbus, OH 43218-2383
Attorney for the Ohio Farm Bureau
Federation

Richard L. Sites
Ohio Hospital Association
155 E. Broad Street, 15th Floor
Columbus, OH 43215-3620
&
Thomas O'Brien
Bricker & Eckler LLP
100 South Third Street
Columbus Oh 43215
Attorneys for Ohio Hospital Association

David C. Rinebolt Colleen L. Mooney 231 West Lima St. P.O. Box 1793 Findlay, OH 45839-1793 Attorney for Ohio Partners for Affordable Energy

Henry W. Eckhart
50 West Broad Street #2117
Columbus Ohio 43215
Attorney for The Sierra Club of Ohio &
The Natural Resources Defense Council

Washington, DC 20007 Attorney for the National Energy Marketers Association

Barth E Royer
Bell & Royer Co., LPA
33 South Grant Avenue
Columbus OH 43215
Attorney for The Ohio Environmental
Council and
Dominion Retail, Inc.

Langdon D. Bell Bell & Royer Co., LPA 33 South Grant Avenue Columbus OH 43215-3927 Attorney for The Ohio Manufacturers' Association

Clinton A. Vince
Presley R. Reed
Emma F. Hand
Ethan E. Rii
Sonnenschein Nath & Rosenthal LLP
1301 K Street NW
Suite 600, East Tower
Washington, DC 20005
Attorneys for Ormet Primary Aluminum
Corporation

Nolan Moser
1207 Grandview Ave. Suite 201
Columbus, OH 43212-3449
Attorney for The Ohio Environmental
Council