

FILE

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke)
Energy Ohio to Adjust Rider DR-IM) Case No. 10-867-GE-RDR
And Rider AU for 2009 SmartGrid Costs)

Prepared Testimony
of
Daniel R. Johnson
Public Utilities Administrator III
And Chief of the Planning and
Market Analysis Division

Staff Exhibit

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1 PREPARED TESTIMONY OF DANIEL R. JOHNSON

2 1. Q. Please state your name and business address.

3 A. My name is Daniel R. Johnson. I am employed by the Public
4 Utilities Commission of Ohio, 180 East Broad Street, Columbus,
5 Ohio 43266-0573.

6 2. Q. What is your current position and what are your responsibilities?

7 A. I am a Public Utilities Administrator III, Chief of the Planning and
8 Market Analysis Division. My responsibilities include directing
9 various staff teams and activities relating to the deployment of Smart
10 Grid in Ohio.

11 3. Q. What are your qualifications for this position?

12 A. I hold an MBA from the University of Pittsburgh, and a Master of
13 Energy Resources from the University of Pittsburgh. Prior to joining
14 the Staff of the Commission I was employed by Battelle, Pacific
15 Northwest Laboratory, as a Research Scientist focusing on energy
16 efficiency and energy R&D impacts appraisals in order to assist the
17 United States Department of Energy with funding allocations for
18 research.

19 I joined the Staff of the Commission in October of 1986 as a Utilities
20 Examiner III. In November 1998 I was promoted to Public Utilities
21 Administrator III, Chief of the Planning and Market Analysis
22 Division. In that capacity I have monitored the development of

1 wholesale and retail electricity markets, and I have led staff teams in
2 the development of rules implementing Senate Bill 3 and Senate Bill
3 221. More recently I have been involved in various projects relating
4 to smart grid implementation including audits of smart grid
5 technology deployments.

6 4. Q. What is the purpose of your testimony?

7 A. My testimony has two different purposes. The first purpose is to
8 recommend that the Commission order Duke to quantify operational
9 benefits realized in 2009, which derive from SmartGrid deployment,
10 to require that all parties have an opportunity for evaluating Duke's
11 quantification and method of quantification as a part of due process,
12 and to require Duke to recognize those benefits as an offset to the
13 revenue requirement in this case for Rider DR-IM. In the alternative
14 the Commission should impose the same requirements of Duke to
15 quantify operational benefits realized in 2009, and in addition
16 require Duke to calculate the time value of deferring recognition of
17 those benefits, in Case No. 10-2326-GE-RDR, and to recognize the
18 value of these benefits including the time value of money as an
19 offset to the revenue requirement for Rider DR-IM in that case.
20 The second purpose of my testimony is to clarify and record staff's
21 recommendation of how to implement the rate caps set forth in the
22 *Stipulation in Case No. 08-920-EL-SSO et. al.*

1 5 Q. With regard to operational benefits, what is the basis of your
2 recommendations?

3 A. Subsequent to the Commission's investigation in Case No. 05-1500-
4 EL-COI the staff has consistently and publicly maintained that
5 operational benefits – both revenue enhancements, and cost savings
6 and avoidances – accruing to an electric utility as a result of smart
7 grid deployment should be netted against smart grid deployment
8 costs for purposes of ratemaking. In the context of this case Duke
9 has identified specific instances or situations that give rise to
10 operational benefits, but has not valued those benefits and has not
11 proposed to recognize their value in rates. Those instances include
12 the following:

- 13 ○ Mark Wyatt in his pre-filed testimony claims that advanced meters
14 have improved billing accuracy.
- 15 ○ Mr. Wyatt also claims in his pre-filed testimony that advanced
16 meters have enabled remote connection and/or disconnection of
17 service.
- 18 ○ In response to Staff data request #35-001 Mr. Wyatt states that
19 certified meters are removed from the manual meter reader routes.
- 20 ○ Don Schneider in his pre-filed testimony states that demand is being
21 reduced through improved voltage control.

- 1 ○ Mr. Schneider also states that a 66 minute outage affecting 2,200
2 customers was avoided.
- 3 ○ Mr. Schneider also states that consumers are beginning to experience
4 other reliability enhancements as a result of Distribution Automation
5 deployment.

6 Each of these facts has the potential to reduce operational costs
7 and/or increase revenues to the Company. Improved billing
8 accuracy could include not only the reduction of uncertainty due to
9 estimated meter readings necessary with inside-the-premises
10 electromechanical meters but also increased energy usage measured
11 by advanced meters compared with aging electromechanical meters.
12 If certified meters have been removed from meter reader routes, it
13 follows that there are fewer manual meter reads, which should lead
14 to reduced meter reading costs. The avoidance of an outage should
15 translate into enhanced revenues and reduced costs compared with
16 the occurrence of that outage. Other reliability enhancements may
17 translate into enhanced revenues and reduced operating costs.

18 6. Q. Are those the only operational benefits that should be recognized
19 against 2009 costs?

20 A. Those are the only ones known to staff at this time.

21 7. Q. Could there be other operational benefits of which staff is not aware?

22 A Yes, there could be others.

1 8. Q: What would you recommend doing about those other benefits that
2 have not yet been identified?

3 A. I would recommend the Commission direct Duke to identify all
4 operational benefits that were realized in 2009. In order to deal with
5 this on a going-forward basis, I recommend the Commission require
6 Duke to develop protocols and methods for identifying instances or
7 situations that result in operational benefits and informing staff of
8 those instances or situations, and to develop methods for valuing
9 such benefits including any benefits that may not be easily
10 quantified through standard accounting methods. The Commission
11 should require Duke to work with staff to expand and/or refine the
12 protocols and methods they develop, and to present the results of
13 that collaboration to the Commission.

14 9. Q. What is your rationale for recommending that operational benefits be
15 netted against costs for rate making purposes?

16 A. The netting is part of a balance in the allocation of benefits between
17 shareholders and ratepayers. The Company and its shareholders
18 benefit from the opportunity to recover expenses and investment in
19 SmartGrid, and from the opportunity to earn a fair return on that
20 investment. The operational savings and revenue enhancements,
21 which I am calling operational benefits, are part of the value
22 proposition to customers. Because customers support SmartGrid

1 deployment through rates, they should realize the benefits that would
2 be unavailable otherwise. This strikes an appropriate balance in
3 such a way that customers, by participating in rate programs made
4 possible by SmartGrid, have an opportunity to achieve an overall
5 benefit that exceeds their costs net of operational benefits. In this
6 way there is a balance between the benefits to the Company and its
7 shareholders on the one hand, and the customers on the other hand.

8 10. Q. Does that conclude your recommendations regarding operational
9 benefits?

10 A. Yes it does.

11 11. Q. Turning, then, to the matter of how to implement the rate caps for
12 Rider DR-IM set forth in the Stipulation in Case No. 08-920-EL-
13 SSO, et. al., what do you recommend?

14 A. There are two parts to my recommendation. The first is a
15 straightforward interpretation of the language of the stipulation. The
16 language is as follows:

17 *The SmartGrid revenue requirement shall be recovered on a monthly*
18 *price per meter for residential customers not to exceed \$0.50 in*
19 *2009, \$1.50 in 2010, \$3.25 in 2011, \$5.25 in 2012, \$5.50 in 2013,*
20 *and thereafter, pursuant to the process set forth in Paragraph 11(f)*
21 *of this Stipulation.*

22
23 The language of the stipulation associates rate caps with calendar
24 years. It does not associate rate caps with costs incurred in any
25 particular year; nor does it associate caps with the recovery of costs

1 incurred in any given year. Thus, staff believes the caps are
2 independent of any vintage of costs incurred or costs being
3 recovered. In the year 2011 the cap will be \$3.25 per month for each
4 residential meter regardless of the vintage(s) of costs being
5 recovered during 2011.

6 12. Q. What if the Commission approves a rate before the rate currently in
7 effect has recovered all the costs it was approved to recover? In
8 other words, what do you recommend if the periods associated with
9 two approved rates overlap and could conceivably be in effect
10 concurrently?

11 A. Staff believes that two rates stacked one on top of the other could be
12 problematic, and they could potentially and inadvertently (or at least
13 unintentionally) violate the rate caps associated with each calendar
14 year. We therefore recommend that any revenues remaining to be
15 collected through an "old" rate that is in effect when a "new" rate
16 goes into effect be rolled into the new rate and collected in equal
17 amounts over the 12 months in which the new rate would be in
18 effect.

19 I will describe my recommendation by presenting a hypothetical
20 example. Let's assume that in February of 2011 the approved
21 existing rate for DR-IM has been in effect beginning on May 17,
22 2010, and that rate is designed to recover \$48 of costs incurred in

1 2008. Let's further assume that a new rate for DR-IM is approved to
2 recover \$48 incurred in 2009, and that it is approved to go into effect
3 on February 17, 2011. Assuming both rates recover the same
4 number of dollars each month of the year, there could be 3 months in
5 which Rider DR-IM could recover costs incurred in 2008 and costs
6 incurred in 2009. In the example, Rider DR-IM would recover \$12
7 (\$4 per month) of costs incurred in 2008 and \$12 (\$4 per month) of
8 costs incurred in 2009 effectively doubling the rate during the 3
9 months between February 17 and May 17.

10 I am proposing that the \$12 of costs incurred in 2008 remaining to
11 be collected in the overlapping 3 months be spread evenly over the
12 12 months of recovery of costs incurred in 2009. This would result
13 in 12 months of a rate designed to collect \$5 per month - \$4 under
14 the new rate per month and \$1 per month associated with the old
15 rate. This will mitigate the potential for increased carrying costs and
16 it will mitigate the potential for violating the rate caps.

17 13. Q. Does this conclude your testimony?

18 A. Yes, it does.

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing **Prepared Testimony of Daniel R. Johnson** was served upon the parties of record by electronic mail and/or U.S. mail, postage prepaid, on December 20, 2010.


Thomas Lindgren

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