OCC EXHIBIT_____

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

)

)

)

)

)

)

)

In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan.

Case No. 14-1297-EL-SSO

DIRECT TESTIMONY OF KENNETH ROSE, Ph.D.

On Behalf of The Office of the Ohio Consumers' Counsel 10 West Broad Street, Suite 1800 Columbus, Ohio 43215-3485

December 22, 2014

TABLE OF CONTENTS

Page

I.	INTRODUCTION	1
II.	PURPOSE OF TESTIMONY	2
III.	RECOMMENDATIONS AND ANALYSIS	3

ATTACHMENTS

Attachment KR-1

1 I. **INTRODUCTION** 2 3 PLEASE STATE YOUR NAME AND AFFILIATION. *Q1*. 4 *A1*. My name is Kenneth Rose, an independent consultant based in Chicago, Illinois. 5 I have been retained by the Office of the Ohio Consumers' Counsel for purposes 6 of this proceeding. 7 8 *02*. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND 9 **PROFESSIONAL EXPERIENCE.** 10 *A2*. I received my B.S., M.A., and Ph.D. in economics from the University of Illinois 11 at Chicago. I have been an independent consultant since 2002. Previously, I was 12 a Senior Institute Economist at the National Regulatory Research Institute 13 ("NRRI") at The Ohio State University from 1989 to 2002, and was an economist 14 in the Energy and Environmental Systems Division at Argonne National Laboratory from 1984 to 1989. I have also been a lecturer for the School of 15 16 Public Policy and Management (1998 to 2002) and the John Glenn School of 17 Public Affairs (2009 to 2011) at The Ohio State University. I have been a Senior 18 Fellow with the Institute of Public Utilities at Michigan State University since 19 2002.

1	<i>Q3</i> .	HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY OR TESTIFIED
2		BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO OR OTHER
3		AGENCIES?
4	<i>A3</i> .	Yes, I have submitted testimony before the Public Utilities Commission of Ohio
5		("PUCO" or "Commission") in the Dayton Power and Light Electric Security
6		Plan ("ESP") case (Case Nos. 12-426-EL-SSO, et al.) and the Duke Energy Ohio,
7		Inc., cases in 2012 and 2013 for certain tariff and accounting changes (Case Nos.
8		12-2400-EL-UNC, 12-2401-EL-AAM, and 12-2402-EL-ATA). I have also
9		testified before Ohio legislative committees and before other state commissions
10		and legislative bodies. They are listed in Attachment KR-1 to my testimony. I
11		have also worked with the Ohio Legislative Service Commission ("LSC") on the
12		drafting of legislation that became Senate Bill 3 ("S.B. 3"), which is explained in
13		more detail later in my testimony.
14		
15	II.	PURPOSE OF TESTIMONY
16		
17	<i>Q4</i> .	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
18	A4.	The purpose of my testimony is to provide my analysis and recommendations
19		regarding the Retail Rate Stability Rider ("Rider RRS") that is proposed for
20		customers and others affected by the electric utilities' application for a fourth
21		electric security plan ("ESP IV") in these cases. The utility-applicants are the
22		Ohio Edison Company ("Ohio Edison"), The Cleveland Electric Illuminating

1		Company ("CEI") and The Toledo Edison Company ("Toledo Edison") (together
2		the "FirstEnergy EDUs", the "Utility" or the "Companies").
3		
4	III.	RECOMMENDATIONS AND ANALYSIS
5		
6	Q5.	PLEASE SUMMARIZE YOUR CONCLUSION.
7	A5.	Based on my review and analysis, I conclude as follows. First, the customers of
8		the Utility should not be required to pay additional money in the form of Rider
9		RRS to protect FirstEnergy Corp., or its unregulated subsidiary, FirstEnergy
10		Solutions ("FES"), from any losses it may incur in a competitive electric
11		generation market. Second, any regulatory actions at this time that allow an
12		electric generator or supplier, such as FES, to collect generating costs from the
13		customers in excess of market prices would be giving the generator or supplier
14		unfair advantages (subsidies). Third, the proposed Rider RRS, if approved, will
15		undermine: the State's Retail Electric Service Policy to ensure the availability of
16		reasonably priced retail electric service (R.C. 4928.02(A)); the diversity of
17		electricity supplies and suppliers (R.C. 4928.02(C)); the avoidance of
18		anticompetitive subsidies flowing from a noncompetitive retail electric service to
19		a competitive retail service (R.C. 4928.02(H)); and the facilitation of the state's
20		effectiveness in the global economy (R.C. 4928.02(N)). I conclude that Rider
21		RRS and its associated Purchase Power Agreement ("PPA") between the Utility
22		and its unregulated affiliate, FES, are not in the public interest and will not benefit

1		the customers of FirstEnergy EDUs. Therefore, Rider RRS and its associated
2		PPA should be denied by the PUCO.
3		
4	Q6.	WHAT IS THE PROPOSED RIDER RRS IN THE ESP?
5	A6	In summary, the proposed Rider RRS would be a non-bypassable generation
6		charge that would be collected from all distribution customers. The charge would
7		be calculated as the difference between the projected costs of specified power
8		sources and the projected PJM market revenues from sales of energy, capacity,
9		and ancillary services from those power sources. There would also be an annual
10		update and reconciliation.
11		
12		However, the Companies' Power Purchase Agreement proposal associated with
13		Rider RRS lacks traditional regulatory oversight. The proposal does not provide
14		for the PUCO to do a prudence review of the legacy costs embedded in past
15		decisions made by the Utilities' unregulated affiliate. Nor will there be a
16		prudence review of costs incurred going forward. This was explained in Witness
17		Mikkelson's testimony where it was stated:
18		
19		"Legacy Cost Components are all costs that arise from decisions or
20		commitments made and contracts entered into prior to December
21		31, 2014, including any costs arising from provisions under such
22		historic contracts that may be employed in the future. * * *.
23		Approval of this ESP IV shall be deemed as approval to

1	recover all Legacy Cost Components through Rider RRS as
2	not unreasonable costs.
3	
4	Rider RRS will be subject to two separate reviews. In the first
5	review, the Staff will have from April 1 to May 31 to review the
6	annual Rider RRS filing for mathematical errors, consistency
7	with the Commission approved rate design, and incorporation
8	of prior audit findings, if applicable. In the second review, the
9	Staff will have the opportunity to audit the reasonableness of
10	the actual costs (excluding Legacy Cost Components which
11	shall not be included in this second review or challenged in any
12	subsequent audit or review) contained in Rider RSS and the
13	actual market revenues contained in Rider RRS. The audit shall
14	include a review to confirm that the actual costs and actual
15	market revenues included in Rider RRS are not
16	unreasonable." ¹
17	
18	The Companies' proposal limits the PUCO review of the Utilities' costs. Limited
19	review means that customers may end up paying for costs that are unreasonable
20	and imprudent.

¹ Direct Testimony of Eileen Mikkelsen at 14-15 (August 4, 2014) (emphasis added).

1 Q7. WHAT IS THE MAIN FEATURE OF THE PROPOSED RIDER RRS IN THE 2 ESP?

The main feature of the proposed Rider RRS is the collection by the Utility, on 3 A7. behalf of its unregulated affiliate, FES, the full "cost" or "contract 4 price"(generally above the market price) of electricity produced from the Davis-5 Besse Nuclear Power Station ("Davis-Besse") and the W.H. Sammis Plant 6 ("Sammis") (collectively, the "Plants"). The above-market price and terms of 7 8 service of electricity produced from the Plants are in turn set, not by the Federal 9 Energy Regulatory Commission ("FERC") or the PUCO, but through a bilateral contract between two affiliated entities (the Utility and FES). The Companies' 10 11 witness Savage explains the mechanics of the proposed Rider RRS. She explains 12 that:

13

14 "The revenue requirement for Rider RRS will be derived based on the difference between: (1) the projected costs, including a return 15 16 on and of invested capital, associated expenses and applicable 17 taxes, for the upcoming year for the Davis-Besse Nuclear Power Station ("Davis-Besse") and the W.H. Sammis Plant ("Sammis") 18 19 (collectively, the "Plants") along with those costs assessed against 20 FirstEnergy Solutions Corp.'s ("FES") share of the Ohio Valley 21 Electric Corporation ("OVEC"); and (2) the projected PJM market revenues that the Companies will receive for selling the energy, 22

1		capacity and ancillary services from the Plants and OVEC into the
2		PJM market." ²
3		
4		In other words, the revenue that the Utility would collect from customers via the
5		Rider RRS would be the difference between the "generation costs" (determined
6		through bilateral contract between two affiliated entities) associated with those
7		Plants and the market revenues the Utility can receive by selling the electricity
8		and related services into the PJM market. Essentially, the Utility will collect from
9		its distribution customers the "generation costs" of its affiliated unregulated
10		generation entity FES not covered in the PJM market—or the above-market
11		generation costs. Specifically, the Companies estimated the total Rider RRS
12		revenue collection (the amount of projected costs above the market prices) from
13		the distribution customers during the three-year term of the ESP to be \$464
14		million. ³
15		
16	<i>Q8</i> .	WHY HAS THE UTILITY PROPOSED RIDER RRS AND ITS ASSOCIATED
17		POWER PURCHASE AGREEMENT IN THE ESP?
18	<i>A8</i> .	The Companies are of the opinion that current market conditions do not provide a
19		sufficient return on certain generating assets. According to the Companies'
20		witness Moul:
21		

² Direct Testimony of Savage at 3 (August 4, 2014).

³ Direct Testimony of Roberto, JAR-1.

1	The economic viability of the Plants is in doubt. Market-based
2	revenues for energy and capacity have been at historic lows and
3	are insufficient to permit FES to continue operating the Plants and
4	to make the necessary investments. Near-term forecasts for energy
5	and capacity prices are unfavorable." ⁴
6 7	The "Plants" he is referring to are the Davis-Besse Nuclear Power Station and the
8	W.H. Sammis Plant. The Companies are also seeking to collect costs associated
9	with FirstEnergy Solutions' share of the output of two generating plants owned
10	and operated by Ohio Valley Electric Corporation. Moul continues by stating that
11	"[m]arkets have not, and are not, providing sufficient revenues to ensure
12	continued operation of the Plants" and that [t]he only thing that can be said with
13	certainty is that the future of the Plants is in doubt." Then he repeats that "[t]he
14	Plants are not receiving sufficient revenues to cover the Plants' costs, both from
15	an energy and capacity standpoint." ⁵
16	
17	In other words, according to the Companies, the specified plants are uneconomic
18	and cannot compete on their own in the marketplace. Witnesses Ruberto, Savage,
19	and Strah describe how the Rider RRS was calculated to make up these FES'
20	market losses— to be paid for by customers of the Companies through the RRS
21	charge. The evidence presented by the Companies would support a conclusion
22	that during the period of the ESP $(2016 - 2018)$ these Plants are uneconomical.

⁴ Direct Testimony of Moul, p. 2.

⁵ Witness Moul, p. 3.

1		However, it should be noted that I have not concluded whether these power plants
2		covered under Rider RSS are economical during the 15-year period of the PPA,
3		nor what future prices of electricity or other fuels will be. The discussion here is
4		to summarize the Utility's rationales for proposing the Rider RSS.
5		
6	Q9.	DO YOU CONCUR WITH THE UTILITY'S RATIONALE FOR PROPOSING
7		THE RIDER RRS?
8	A9.	No. Essentially, the proposed Rider RRS and its associated PPA, if approved,
9		would amount to a bail-out funded by the customers of the Utility for two of
10		FES's unregulated generation plants.
11		
12		After the market development period, utilities are required under Ohio law to be
13		fully on their own in the competitive market. The Companies' market
14		development period ended on December 31, 2005. ⁶ Being on your own in the
15		competitive market means that the Companies' unregulated generation efforts
16		cannot be aided by a subsidy—especially one paid for by the Companies'
17		distribution customers.
18		

⁶ It should be noted that the "Generation Transition Charge" (GTC) ended at the end of 2005, but, for "regulatory transition charges" (RTC), the end dates were extended, per the PUCO-approved stipulation. Specifically, the stipulation indicates that the RTC recovery periods will not extend beyond December 31, 2006 for Ohio Edison, June 30, 2007 for Toledo Edison, and December 31, 2008 for CEI except in some limited circumstances. See *In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues,* PUCO Case Nos. 99-1212-EL-ETP, 99-1213-EL-ATA, and 99-1214-EL-AAM, Opinion and Order (July 19, 2000). p. 11"

1	<i>Q10</i> .	IN YOUR OPINION, IS THE COMPANIES' ESTIMATE OF THE SO-
2		CALLED LONG-TERM "BENEFITS" UNDER THE PPA FOR THE
3		UTILITY'S CUSTOMERS RELIABLE?
4	A10.	No.
5		
6	<i>Q11</i> .	WHY IS THE COMPANIES' ESTIMATE OF BENEFITS NOT RELIABLE?
7	A11.	There is great uncertainty regarding the long-term price and cost projections for
8		electricity and other forms of energy. Consequently, the estimated impact
9		provided by the Utility in this proceeding, especially those projections further into
10		the future, is of little value in assessing the purported benefits of Rider RRS as
11		claimed by the Utility. It is possible that the future market prices of electricity in
12		the PJM market will be much lower than those estimated by the Utility and the
13		revenue (the difference between market price and "generation costs") to be
14		collected through Rider RRS from customers will be much higher than currently
15		estimated. For example, as discussed earlier, the Utility did provide estimates
16		regarding the impact of the proposed Rider RRS for over an extended period of
17		time (from 2016 through 2031). ⁷ However, another OCC/NOPEC (Northeast
18		Ohio Public Energy Council) witness, James Wilson, has produced a vastly
19		different estimate of the impact of the proposed Rider RRS.
20		
21		

1	Q12.	DO YOU AGREE THAT THE COMPANIES SHOULD BE ALLOWED TO
2		COLLECT AND TRANSFER TO FES (THEIR UNREGULATED
3		AFFILIATE) THE COMPENSATION FOR THE DEREGULATED
4		GENERATION ASSETS COVERED UNDER THE PROPOSED RRS?
5	A12.	No, I do not believe that the Companies should be allowed to collect the above-
6		market "costs" for those Plants owned by FES from their customers and transfer
7		the collected revenue to FES through a bilateral contract not regulated by the
8		FERC or the PUCO. It should also be noted that Ohio Edison, CEI, and Toledo
9		Edison do not own any generation plants at this time. The power plants to be
10		included in the Rider RRS are owned and operated by FES, an unregulated
11		affiliate of the Companies. I do not believe that the Companies should be allowed
12		to collect above-market generation costs from customers and transfer the collected
13		revenues to its unregulated affiliates. My opinion is based on my knowledge of
14		established and sound regulatory policy as a regulatory economist and on my
15		understanding of Ohio laws that limit charges to customers for competitive
16		generation market losses by electric utilities.
17		
18	Q13.	IS THE COMPANIES' PROPOSAL CONSISTENT WITH OHIO LAWS?

- 19 A13. No.
- 20
- 21

1	<i>Q14</i> .	PLEASE DESCRIBE YOUR UNDERSTANDING OF THE OHIO LAWS
2		THAT YOU REFERENCE IN YOUR PRECEDING ANSWER.
3	<i>A14</i> .	In the late 1990s, while I was employed at NRRI at The Ohio State University, I
4		worked for the Ohio LSC directly assisting the legislators tasked with drafting
5		what became S.B. 3. In particular, my work was directly related to the drafting of
6		language (statutes) regarding "transition costs" or "stranded cost" recovery and
7		the methods for determining the standard service offer rate. S.B. 3 became the
8		law in Ohio in 1999 ⁸ and the specific provisions pertaining to stranded
9		investment, R.C. 4928.38 and 4928.39, remain applicable today.
10		
11		It is my understanding, as confirmed by counsel, that the Legislative goals of S.B.
12		3 were to deregulate the generation market and end the use of cost-based rates for
13		generation services in the state of Ohio. ⁹ Cost-based regulation was to be
14		replaced by market competition as a means to determine the wholesale and retail
15		generation price for all electricity customers. Consequently, after the enactment
16		of S.B. 3, market forces are to determine which power plants should be operated
17		and which power plants should be retired if they are inefficient and uneconomic.
18		
19		However, there is an important analytic point to be made in that regard. The test
20		for economic viability of the Plants is whether PJM Interconnection L.L.C.

⁸ As Passed by the Ohio 123rd General Assembly, 1999.

⁹ Legislative Service Commission, Final Analysis, Am. Sub. S.B. 3, 123rd General Assembly, 1999.

1		("PJM") market prices are sufficiently high to cover the supplier's average
2		variable costs, i.e., costs that vary with output.
3		
4		But under the Companies' proposal, customers will be charged the full embedded
5		costs of generation plant including a return on and a return of legacy capital.
6		Thus, it is entirely possible that Rider RRS would "produce" a "loss" that
7		customers pay for (meaning full cost of service exceeds PJM revenue from the
8		generation) even though the PJM market prices are still high enough to cover
9		average variable costs. Thus, the fact that the Rider RRS produces a loss for
10		customers does not mean that absent that rider the plants covered under Rider
11		RRS would or should be retired.
12		
12 13	Q15.	IS THE UTILITY'S RIDER RRS PROPOSAL CONSISTENT WITH S.B. 3?
	Q15. A15.	<i>IS THE UTILITY'S RIDER RRS PROPOSAL CONSISTENT WITH S.B. 3?</i> No. The fundamental idea behind this deregulation of the generation business
13	~	
13 14	~	No. The fundamental idea behind this deregulation of the generation business
13 14 15	~	No. The fundamental idea behind this deregulation of the generation business (S.B. 3) is that retail customers should not now be asked to protect Ohio electric
13 14 15 16	~	No. The fundamental idea behind this deregulation of the generation business (S.B. 3) is that retail customers should not now be asked to protect Ohio electric utilities from competitive generation market risks or losses. A market
13 14 15 16 17	~	No. The fundamental idea behind this deregulation of the generation business (S.B. 3) is that retail customers should not now be asked to protect Ohio electric utilities from competitive generation market risks or losses. A market development period was provided under S.B. 3. The intent of the market
 13 14 15 16 17 18 	~	No. The fundamental idea behind this deregulation of the generation business (S.B. 3) is that retail customers should not now be asked to protect Ohio electric utilities from competitive generation market risks or losses. A market development period was provided under S.B. 3. The intent of the market development period was to provide electric utilities in Ohio time to prepare for a
 13 14 15 16 17 18 19 	~	No. The fundamental idea behind this deregulation of the generation business (S.B. 3) is that retail customers should not now be asked to protect Ohio electric utilities from competitive generation market risks or losses. A market development period was provided under S.B. 3. The intent of the market development period was to provide electric utilities in Ohio time to prepare for a competitive environment. That market development period has elapsed, and it is
 13 14 15 16 17 18 19 20 	~	No. The fundamental idea behind this deregulation of the generation business (S.B. 3) is that retail customers should not now be asked to protect Ohio electric utilities from competitive generation market risks or losses. A market development period was provided under S.B. 3. The intent of the market development period was to provide electric utilities in Ohio time to prepare for a competitive environment. That market development period has elapsed, and it is no longer the Utility's customers' obligation to cover the operating generating

1		whether they are in a competitive position in the generation market. Customers
2		should not be asked to guarantee the profitability of the Companies' affiliate-
3		owned generation units.
4		
5	Q16.	WHY IS THE PROPOSED RRS AND ITS ASSOCIATED PPA
6		CONTRADICTING THE LEGISLATIVE INTENT AND THE POLICY
7		GOALS OF ELECTRICITY DEREGULATION IN OHIO, IN PARTICULAR
8		S.B. 3?
9	A16	From a policy perspective, the Companies' proposed Rider RRS and its associated
10		PPA is based on the premise that captive retail customers should make up the
11		potential losses of certain generation assets owned and operated by the
12		Companies' unregulated affiliate, FES, and ultimately, the Utility's parent
13		company, FirstEnergy Corp. This is contrary to Ohio's policy direction since
14		1999. The proposed RRS charge is an attempt to re-introduce revenue guarantees
15		for the specified unregulated (and currently uneconomic) generation assets.
16		
17		What the Companies have proposed regarding the Rider RRS can be viewed as
18		either (1) a continuation of transition or "stranded" cost recovery for those power
19		plants, which as explained below should no longer be permitted or (2) a loosely-
20		designed cost-based regulation that incorporate a revenue guarantee for those
21		generation plants. This is problematic because the "cost" (or PPA contract price)
22		of the specific generation assets is determined through bilateral contract between

affiliated companies, and the "cost" (or contract price) are not set by FERC or the 1 2 PUCO. 3 4 017. DO YOU HAVE CONCERNS FOR CUSTOMERS REGARDING THE 5 UTILITIES' ATTEMPT TO RE-INTRODUCE A REVENUE GUARANTEE **INTO THEIR UNREGULATED BUSINESS?** 6 A17. Yes, I do. This approach is a loosely based attempt at "re-regulation" (or more 7 8 precisely the re-introduction of revenue guarantee through unregulated bilateral 9 contracts between affiliated entities). The Utilities' proposal is an attempt to "reregulate" the very service (competitive generation) that has been the focus of 10 11 attempts to deregulate, at both the federal and state levels. However, the proposed 12 Rider RRS is considerably inferior to the traditional cost-based regulation because it is actually a revenue guarantee masked as partial cost-based regulation. As 13 discussed above, the Utility's proposal lacks the important checks and balances 14 that usually accompany traditional or cost-based regulation, such as prudence 15 16 review of costs incurred. 17 Under the proposed Rider RRS, in a broader sense, the FirstEnergy Corp. would 18 be collecting additional revenues (that are above market price) from captive 19 20 customers of its regulated distribution subsidiaries, Ohio Edison, CEI, and Toledo 21 Edison. And then the revenues would be transferred to the unregulated subsidiary 22 FES (the entity that actually owned generation assets that are no longer priceregulated by the State of Ohio). By doing so, the FirstEnergy Corp. will receive a 23

1		guaranteed return on some of its generation capital investments. These revenues
2		would provide the FirstEnergy Corp., or its unregulated subsidiary FES,
3		additional dollars that it allegedly otherwise cannot collect by selling generation
4		services in the wholesale or retail market.
5		
6		This scheme is contrary to the legislative intent of S.B. 3 to create a competitive
7		generation market in the state. If the proposed Rider RRS were granted by the
8		Commission, some of FirstEnergy's generation plants would receive this
9		additional revenue in the form of a guaranteed return. But other non-affiliated
10		electric suppliers would not receive any similar guaranteed return for their
11		competing in the market. In this regard, the approval of the Rider RRS and its
12		associated power purchase agreement will place generators other than FES at a
13		competitive disadvantage in the market. And the Rider RRS will impair the
14		operation of a competitive market that is intended to provide generation pricing
15		for Ohio electric customers.
16		
17	Q18.	FIFTEEN YEARS AFTER SENATE BILL 3'S ENACTMENT, SHOULD
18		THE COMPANIES' TRANSITION TO COMPETITION BE DONE?
19	A18.	Yes. The Companies should no longer charge customers a price, especially one
20		that includes a guaranteed return for generation service determined by the PUCO.
21		
22		

1 Q19. DOES OHIO LAW PROVIDE THE COMPANIES WITH AN ADDITIONAL 2 TRANSITION PERIOD?

3 A19. No. My understanding of S.B. 3, confirmed by counsel, is that Ohio law prohibits 4 the recovery of stranded costs or transition costs or "equivalent revenues" beyond 5 the "market development period." That time period expired on December 31, 6 2005, plus the additional time the Companies were granted. Specifically, Section 7 4928.38 of the Revised Code, as adopted on October 5, 1999, provides that an 8 electric utility may receive transition revenues from the starting date of 9 competitive retail electric service through the end of the market development 10 period. Further, that section of the Revised Code provides that once the utility's 11 market development period ends, it "shall be fully on its own in the competitive 12 market." Being fully on its own in the competitive market means that the utility 13 (and its affiliate) are not charging captive customers of regulated services for 14 revenues to support power plants. 15 WHAT TYPE OF COSTS ARE THE COMPANIES TRYING TO COLLECT 16 *O20*.

17 FROM CUSTOMERS THROUGH THE PROPOSED RIDER RRS AND ITS 18 ASSOCIATED PPA?

A20. Specifically, the Utilities are seeking to charge customers for above-market
generation costs.

21

1	<i>Q21</i> .	ARE THE COMPANIES ATTEMPTING TO COLLECT, ONE MORE
2		TIME, TRANSITION COSTS OR "EQUIVALENT REVENUES"?
3	A21.	Yes. Section 4928.39 of the Revised Code defines transition costs. It clearly
4		states that the costs unrecoverable in a competitive environment are considered a
5		part of the transition costs. At this time in 2014, the Companies are claiming one
6		more time that revenue derived from a competitive marketplace is insufficient to
7		cover the cost of operating the plants. That the cost of generation plants exceeds
8		the market price is essentially the very definition of transition cost. During the
9		Market Development Period, the Companies charged customers for considerable
10		amounts of money (billions of dollars) to adjust to market conditions.
11		Specifically, the Commission's Order that approved the FirstEnergy stipulation
12		stated the amount that the companies can collect from customers:
13		"Pursuant to Section 4928.39, Revised Code, the total allowable
14		transition costs for the FirstEnergy operating companies are
15		\$2,527,579,833 for Ohio Edison, \$3,017,813,280 for CEI, and
16		\$1,366,034,515 for Toledo Edison." ¹⁰
17		
18		Indeed, the Companies were well compensated (approximately \$7 billion) for
19		their transition to competition. Therefore, it is unlawful for the PUCO to
20		authorize, one more time, these Companies to collect additional transition costs or

¹⁰ In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues, PUCO Case Nos. 99-1212-EL-ETP, 99-1213-EL-ATA, and 99-1214-EL-AAM, Opinion and Order (July 19, 2000), p. 71.

1		equivalent revenues from customers after the conclusion of the Market
2		Development Period.
3		
4	<i>Q22</i> .	WOULD IT BE PROPER FOR THE COMPANIES TO NOW CHARGE
5		CUSTOMERS FOR ADDITIONAL GENERATION-RELATED TRANSITION
6		COSTS, ABOVE MARKET PRICES, AND TRANSFER THOSE
7		COLLECTED REVENUES TO FES IN ORDER TO KEEP THE
8		UNREGULATED POWER PLANTS IN OPERATION?
9	A22.	No. The law is very clear that "[w]ith the termination of that approved revenue
10		source, the utility shall be fully on its own in the competitive market" and that the
11		commission "shall not authorize the receipt of transition revenues or any
12		equivalent revenues" after the termination of the market development period.
13		This means that the Companies cannot charge customers of the regulated
14		distribution business dollars that subsidizes FES' non-regulated generation
15		service. But that's just what the Companies propose to do.
16		
17		In addition, the Companies have not demonstrated that it is in the best interests of
18		the customers or the state of Ohio, at this time in 2014, to support those power
19		plants covered under the proposed Rider RRS through hundreds of millions or
20		even billions of dollars in subsidies. Those power plants should compete in the
21		market with other power plants, on their own without customer-provided
22		subsidies. Therefore, the Companies' proposal violates Ohio's retail electric

1		service policy and Ohio law. FirstEnergy's proposal should be rejected by the
2		PUCO.
3		
4	<i>Q23</i> .	DOES THE PROPOSED RIDER RRS AND ITS ASSOCIATED PPA
5		ADVANCE AND PROMOTE STATE ELECTRIC SERVICE POLICY
6		ENUMERATED IN OHIO REVISED CODE 4928.02?
7	A23.	No. The proposed Rider RRS and its associated PPA, if approved by the
8		Commission, do not advance or promote the state electric service policy as
9		enumerated in R.C. 4928.02. It is clear to me that approval of the proposed Rider
10		RRS would undermine many of the State's Electric Service Policies. Specifically
11		and without limitation, these state electric service policies include ensuring: the
12		availability of reasonably priced retail electric service (4928.02(A); the diversity
13		of electricity supplies and suppliers (4928.02(C)); the avoidance of
14		anticompetitive subsidies flowing from a noncompetitive retail electric service to
15		a competitive retail service and other policies (4928.02(H)); and the facilitation of
16		the state's effectiveness in the global economy (4928.02(N).

1	<i>Q24</i> .	PLEASE EXPLAIN WHY THE PROPOSED RIDER RRS DOES NOT
2		ADVANCE THE STATE RETAIL ELECTRIC SERVICE POLICY OF
3		ENSURING THE AVAILABILITY OF REASONABLY PRICED RETAIL
4		ELECTRIC SERVICE?
5	A24.	Ohio Revised Code (R.C.) 4928.02(A) states that it is the policy of the state of
6		Ohio to "Ensure the availability to consumers of adequate, reliable, safe, efficient,
7		nondiscriminatory, and reasonably priced retail electric service." The best way to
8		ensure "reasonably priced retail electric service" is to let a competitive market
9		operate freely without subsidies to any of the market participants such as the non-
10		bypassable Rider RRS charges collected by the Utility and transferred to FES.
11		The proposed Rider RRS will also unnecessarily and unreasonably increase the
12		costs paid by the retail customers of the Utility. The Utilities' proposal admits
13		that during the first three years of the ESP customers are expected to pay \$464
14		million under the proposed Rider RRS. ¹¹
15		
16	Q25.	PLEASE EXPLAIN WHY THE PROPOSED RIDER RRS DOES NOT
17		ADVANCE THE STATE ELECTRIC SERVICE POLICY OF PROMOTING
18		DIVERSITY OF ELECTRICITY SUPPLIES AND SUPPLIERS.
19	A25.	R.C. 4928.02(C) states that it is the policy of the state of Ohio to "Ensure
20		diversity of electricity supplies and suppliers, by giving consumers effective
21		choices over the selection of those supplies and suppliers and by encouraging the
22		development of distributed and small generation facilities." To "ensure

¹¹ Direct Testimony of Roberto, JAR-1.

1		diversity," it is important to have a level playing field for all suppliers to compete
2		on. However, the Rider RRS would be a non-bypassable charge assessed to all
3		customers, and the revenue collected would only go to one supplier, FES. Other
4		alternative suppliers or generators would be at a disadvantage because they would
5		not receive guaranteed revenues or a subsidy and would have to operate only on
6		the revenues they receive in the electricity markets.
7		
8	Q26.	PLEASE EXPLAIN WHY THE PROPOSED RIDER RRS DOES NOT
9		ADVANCE THE STATE ELECTRIC SERVICE POLICY OF AVOIDING
10		ANTICOMPETITIVE SUBSIDIES FLOWING FROM A
11		NONCOMPETITIVE RETAIL ELECTRIC SERVICE TO A COMPETITIVE
12		RETAIL SERVICE.
13	A26.	R.C. 4928.02(H) states that the state's policy is to "[e]nsure effective competition
14		in the provision of retail electric service by avoiding anticompetitive subsidies
15		flowing from a noncompetitive retail electric service to a competitive retail
16		electric service or to a product or service other than retail electric service, and
17		vice versa, including by prohibiting the recovery of any generation-related costs
18		through distribution or transmission rates." This is often referred to as cross-
19		subsidization, which includes, for example, having non-competitive services
20		(such as distribution) subsidize competitive services (such as generation).
21		Because Rider RRS is a non-bypassable generation charge assessed through the
22		FirstEnergy distribution companies—and collected from all captive distribution
23		customers, it is an example of cross-subsidization of generation service by

1		distribution customers. An approval of the Rider RRS is a violation of this state
2		policy. The non-bypassable charge collected through Rider RRS only benefits
3		one supplier, and provides additional revenue to that supplier, that other suppliers
4		in the market do not receive.
5		
6	Q27.	PLEASE EXPLAIN WHY THE PROPOSED RIDER RRS DOES NOT
7		ADVANCE OR PROMOTE STATE ELECTRIC SERVICE POLICY OF
8		FACILITATING THE STATE'S EFFECTIVENESS IN THE GLOBAL
9		ECONOMY.
10	A27.	R.C. 4928.02(N) states that it is the policy of the state to "[f] acilitate the state's
11		effectiveness in the global economy." A good way to help Ohio be competitive in
12		the global economy is to allow Ohio's residential, commercial, and industrial
13		customers to have competitively priced electricity services. The non-bypassable
14		charge collected through the proposed Rider RSS will be equivalent to an
15		electricity tax, approximately \$464 million over three years based on Companies'
16		estimate, that would undoubtedly reduce the disposable incomes of the
17		Companies' many residential customers, and increase the energy costs of the
18		industrial and commercial customers. Simply put, subsidies paid to an affiliate
19		supplier through non-bypassable charges do not help minimize the impact on
20		retail electricity prices in the State. The approval of Rider RSS will likely hurt,
21		and not help the economy and employment in the State of Ohio.
22		

22

1	Q28.	PLEASE SUMMARIZE YOUR CONCLUSION AND RECOMMENDATION
2		REGARDING THE PROPOSED RIDER RRS IN THE PROPOSED ESP.
3	A28.	My primary recommendation is that the PUCO should reject the proposed Rider
4		RRS and its associated PPA as part of the ESP IV. The Utilities should not be
5		allowed to collect above-market generation costs (or contract rates), through
6		Rider RRS, from the customers for the electricity produced by the Plants. And
7		the Utilities should not be allowed to then transfer the collected revenues to their
8		unregulated affiliate, FES. As discussed before, the above-market generation
9		costs (or contract rates), charged to the customers of the Utilities, are inconsistent
10		with the legislative intent of a deregulated generation market in the state of Ohio.
11		The imposition of Rider RRS on the customers amounts to providing an unjust
12		subsidy to one particular generator, FES. The approval of Rider RRS will distort
13		a competitive generation market. The approval of Rider RRS will likely impose
14		substantial and additional costs on the captive customers of the Utility (for
15		example, the \$464 million in first three years as estimated by the Companies).
16		And the PUCO will have almost no recourse to undo the damages to customers
17		and the competitive generation market if the difference between generation costs
18		and market prices persists well into the future.

19

20 Q29. DOES THIS CONCLUDE YOUR TESTIMONY?

21 A29. Yes. However, I reserve the right to incorporate new information that may
22 subsequently become available through outstanding discovery or otherwise.

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing *Direct Testimony of Kenneth Rose, Ph.D.* was served via electronic transmission to the persons listed below on this December 22nd day of 2014.

> <u>/s/ Larry S. Sauer</u> Larry S. Sauer Deputy Consumers' Counsel

SERVICE LIST

Thomas.mcnamee@puc.state.oh.us Thomas.lindgren@puc.state.oh.us Ryan.orourke@puc.state.oh.us mkurtz@BKLlawfirm.com kboehm@BKLlawfirm.com ikylercohn@BKLlawfirm.com stnourse@aep.com mjsatterwhite@aep.com valami@aep.com joseph.clark@directenergy.com ghull@eckertseamans.com myurick@taftlaw.com dparram@taftlaw.com Schmidt@sppgrp.com ricks@ohanet.org tobrien@bricker.com mkl@bbrslaw.com gas@bbrslaw.com ojk@bbrslaw.com wttpmlc@aol.com lhawrot@spilmanlaw.com dwilliamson@spilmanlaw.com blanghenry@city.cleveland.oh.us hmadorsky@city.cleveland.oh.us krvan@city.cleveland.oh.us mdortch@kravitzllc.com rparsons@kravitzllc.com gkrassen@bricker.com dstinson@bricker.com dborchers@bricker.com mitch.dutton@fpl.com selisar@mwncmh.com

burkj@firstenergycorp.com cdunn@firstenergycorp.com ilang@calfee.com talexander@calfee.com dakutik@jonesday.com sam@mwncmh.com fdarr@mwncmh.com mpritchard@mwncmh.com cmooney@ohiopartners.org callwein@wamenergylaw.com joliker@igsenergy.com mswhite@igsenergy.com Bojko@carpenterlipps.com Allison@carpenterlipps.com hussey@carpenterlipps.com barthrover@aol.com athompson@taftlaw.com Christopher.miller@icemiller.com Gregory.dunn@icemiller.com Jeremy.grayem@icemiller.com blanghenry@city.cleveland.oh.us hmadorsky@city.cleveland.oh.us kryan@city.cleveland.oh.us tdougherty@theOEC.org ifinnigan@edf.org Marilyn@wflawfirm.com todonnell@dickinsonwright.com matt@matthewcoxlaw.com mfleisher@elpc.org drinebolt@ohiopartners.org meissnerjoseph@vahoo.com LeslieKovacik@toledo.oh.gov

ccunningham@akronohio.gov asonderman@keglerbrown.com sechler@carpenterlipps.com gpoulos@enernoc.com toddm@wamenergylaw.com

Attorney Examiners: <u>Gregory.price@puc.state.oh.us</u> <u>Mandy.willey@puc.state.oh.us</u> trhayslaw@gmail.com Jeffrey.mayes@monitoringanalytics.com mhpetricoff@vorys.com mjsettineri@vorys.com glpetrucci@vorys.com msoules@earthjustice.org sfisk@earthjustice.org

Curriculum Vitae for Kenneth Rose, Ph.D. tel.: 614-507-8299 email: ken@kenrose.us web site: <u>www.kenrose.us</u> Chicago, Illinois

Professional Experience

2002 - Present, Independent Consultant.

2002 - Present, Senior Fellow, Institute of Public Utilities, Michigan State University.

2009 - 2011, Lecturer, John Glenn School of Public Affairs, The Ohio State University, Columbus, Ohio.

1998 - 2002, Lecturer, School of Public Policy and Management, The Ohio State University, Columbus, Ohio.

1989 - 2002, Senior Institute Economist, National Regulatory Research Institute, The Ohio State University, Columbus, Ohio.

1984 - 1989, Economist, Energy and Environmental Systems Division, Argonne National Laboratory, Argonne, Illinois.

Education

Ph.D. Economics, University of Illinois at Chicago, 1988. Areas of Concentration: Applied Microeconomics and Econometrics. Thesis: Economic Analysis of Electricity Self-Generation by Industrial Firms.

M.A. Economics, University of Illinois at Chicago, 1983.

B.S. Economics, University of Illinois at Chicago, 1981.

Publications

Book Contributions

Kenneth Rose, "Electric Power: Traditional Monopoly Franchise Regulation and Rate Making," in *Encyclopedia of Energy*, Vol. 2 (Academic Press/Elsevier Science, 2004), 289-299.

Kenneth Rose, "Electric Industry Restructuring and the SO2 Emissions Trading Program: A Look Ahead by Looking Back," in *Emission Trading: Environmental Policy's New Approach*, Richard F. Kosobud, ed. (New York: John Wiley & Sons, Inc., 2000), 209-215.

Kenneth Rose, "Implementing an Emissions Trading Program in an Economically Regulated Industry: Lessons from the SO2 Trading Program" in *Market Based Approaches to Environmental Policy: Regulatory Innovations to the Fore*, Richard F. Kosobud and Jennifer M. Zimmerman, eds. (New York: Van Nostrand Reinhold, 1997).

Kenneth Rose, "Planning Versus Competition and Incentives: Conflicts, Complements, or Evolution?" in *Reforming Electricity Regulation: Fitting Regional Networks into a Federal System*, Clinton J. Andrews, ed. (Westport, CT: Quorum Books, 1994).

Articles .

"State Retail Electricity Markets," in ElectricityPolicy.com, June 14, 2012. http://www.electricitypolicy.com/archives/4455-stateretailelectricitymarkets

"What Regulators Learned at Grid School, How Much Smart Grid Is Enough?" in EnergyBiz Magazine, September/October 2011. http://www.energybiz.com/magazine/article/235203/what-regulators-learned-grid-school

"Not So Fast: Proving market performance requires detailed analysis," in *Public Utilities Fortnightly*, January 2010.

Kenneth Rose, "Prescription for Change: States Can Adopt Regulatory Models to Spur Innovation," invited guest opinion, *EnergyBiz*, November/December 2008.

Kenneth Rose, "The Impact of Fuel Costs on Electric Power Prices," Public Power, Vol. 65, No. 3, May-June 2007.

Kenneth Rose, "Restructuring Revisited," Energy Biz, Vol. 4, Issue 1 (January/February 2007).

Kenneth Rose, "The State of Retail Electricity Markets in the U.S.," *The Electricity Journal* Vol. 17, No. 1 (January/February 2004).

Selina Lim and Kenneth Rose, "Retail Access Slowed but Not Stopped after California" *Natural Gas* (published by John Wiley & Sons,) July 2001.

Kenneth Rose, "Using Auctions to Jump-Start Competition and Short-Circuit Incumbent Market Power," *Public Utilities Fortnightly* (February 1, 1999).

Kenneth W. Costello and Kenneth Rose, "Some Fundamental Questions on Market Power: No Easy Answers for State Utility Regulators," *The Electricity Journal* Vol. 11, No. 6 (July 1998).

Kenneth Rose, "Securitization of Uneconomic Costs: Whom Does It Secure?" *PublicUtilities Fortnightly* Vol. 135, No. 11 (June 1, 1997).

Herbert G. Thompson, Jr. and Kenneth Rose, "Merge, Consolidate, Grow, or Spin Off? The Costs and Synergies of Vertical Integration," *Public Utilities Fortnightly* Vol. 134, No. 17 (September 15, 1996).

Kenneth Rose, "Twelve Common Myths of Allowance Trading: Improving the Level of Discussion," *The Electricity Journal* Vol. 8, No. 4 (May 1995).

Kenneth Rose, "PUC Treatment of Compliance Costs: Ratepayers, Utilities & the Allowance Market," *Compliance Strategies Review* (January 18, 1993).

Kenneth Rose and Robert E. Burns, "A Need to Act: The FERC, the State Commissions, and the Clean Air Act," *Public Utilities Fortnightly* Vol. 130, No. 11 (December 1, 1992).

Barry D. Solomon and Kenneth Rose, "Emissions Trading: Incentives--Not Preapproval," *The Electricity Journal* Vol. 5, No. 6 (July 1992).

Kenneth Rose, "Price-Cap Regulation: Some Implementation Issues," *Quarterly Bulletin* 12, no. 4, The National Regulatory Research Institute (December 1991).

K. Rose and J. F. McDonald, "Economics of Electricity Self-Generation by Industrial Firms," *The Energy Journal* 12, no. 2 (1991).

Reports (selected reports are posted at: http://www.kenrose.us/id3.html)

Robert E. Burns and Kenneth Rose, PURPA Title II Compliance Manual, March 2014. http://www.ipu.msu.edu/research/pdfs/PURPA%20Title%20II%20Manual%20Final.pdf

Kenneth Rose, "An Examination of RTO Capacity Markets, IPU Working Paper No. 2011-4, Institute of Public Utilities at Michigan State University, September 1, 2011. http://www.ipu.msu.edu/research/pdfs/Working-Paper-Rose-Capacity-Markets.pdf

Kenneth Rose and Mike Murphy, "Reference Manual and Procedures for Implementation of the "PURPA Standards" in the Energy Independence and Security Act of 2007," August 11, 2008.

Kenneth Rose, "The Impact of Fuel Costs on Electric Power Prices," prepared for the American Public Power Association (APPA), June 2007.

Kenneth Rose and Karl Meeusen, "2006 Performance Review of Electric Power Markets," for the Virginia State Corporation Commission, August 27, 2006.

Kenneth Rose and Karl Meeusen, "Reference Manual and Procedures for Implementation of the 'PURPA Standards' in the Energy Policy Act of 2005," March 22, 2006.

Kenneth Rose and Karl Meeusen, "2005 Performance Review of Electric Power Markets," for the Virginia State Corporation Commission, August 23, 2005.

Kenneth Rose, "2004 Performance Review of Electric Power Markets," for the Virginia State Corporation Commission, August 25, 2004.

Kenneth Rose, "2003 Performance Review of Electric Power Markets," for the Virginia State Corporation Commission, August 29, 2003.

Kenneth Rose and Venkata Bujimalla, "2002 Performance Review of Electric Power Markets," for the Virginia State Corporation Commission, August 30, 2002.

Kenneth Rose, "A Reexamination of the Restructuring of the Electric Supply Industry: What Will It Take to Make It Work?," for the Alabama Public Service Commission (May 2002, unreleased draft).

Kenneth Rose, Selina Lim, and Venkata Bujimalla, "Performance Review of Electric Power Markets," for the Virginia State Corporation Commission, August 31, 2001.

Kenneth Rose, "Energy Industry Restructuring: California Electric Restructuring Meltdown," in Costello et al., *The State of Regulation: An Annual Examination of the Four Utility Sectors*, The National Regulatory Research Institute, NRRI 01-10, Columbus, Ohio (August 2001).

Kenneth Rose, *Electric Restructuring Issues for Residential and Small Business Customers* The National Regulatory Research Institute, NRRI 00-10, Columbus, Ohio (June 2000).

Kenneth Rose, "Four Evolving Issues for Policymakers in an Era of Continual Change in the Electric Industry," in Wirick et al., *The State of Regulation: NRRI's Annual Examination of the Four Utility Sectors and a Look Forward*, The National Regulatory Research Institute, NRRI 00-07, Columbus, Ohio (May 2000).

Kenneth W. Costello and Kenneth Rose with John Hoag, *An Ex Ante Analysis of Retail Competition in the Electric Power Industry: The Case of Kansa*s, The National Regulatory Research Institute, NRRI 97-25, Columbus, Ohio (December 1997).

Kenneth Rose, et al., *Summary of Key State Issues of FERC Orders 888 and 889*, The National Regulatory Research Institute, NRRI 97-08, Columbus, Ohio (January 1997).

Kenneth Rose, An Economic and Legal Perspective on Electric Utility Transition Costs, The National Regulatory Research Institute, NRRI 96-15, Columbus, Ohio (July 1996).

Herbert G. Thompson, et al., *Economies of Scale and Vertical Integration in the Investor-Owned Electric Utility Industry*, The National Regulatory Research Institute, NRRI 96-05, Columbus, Ohio (January 1996).

Scott Hempling, Kenneth Rose, and Robert E. Burns, *The Regulatory Treatment of Embedded Costs Exceeding Market Prices: Transition to a Competitive Electric Generation Market, A Briefing Document for State Commissions*, The National Regulatory Research Institute, NRRI 94-24, Columbus, Ohio (November 1994). (Also printed and distributed by the National Association of Regulatory Utility Commissioners, Washington, D.C.)

Kenneth Rose, Paul A. Centolella, and Benjamin F. Hobbs, *Public Utility Commission Treatment of Environmental Externalities*, The National Regulatory Research Institute, NRRI 94-10, Columbus, Ohio (June 1994).

Mohammad Harunuzzaman, Kenneth W. Costello, Thomas P. Lyon, Edward H. Jennings, Kenneth Rose, Govindarajan Iyyuni, Mark Eifert, and Timothy Viezer, *Regulatory Practices and Innovative Generation Technologies: Problems and New Rate-Making Approaches*, The National Regulatory Research Institute, NRRI 94-05, Columbus, Ohio (March 1994).

Kenneth Rose, Alan S. Taylor, and Mohammad Harunuzzaman, *Regulatory Treatment of Electric Utility Clean Air Act Compliance Strategies, Costs, and Emission Allowances*, The National Regulatory Research Institute, NRRI 93-16, Columbus, Ohio (December 1993).

Presentations and Papers From the National Seminars on Public Utility Commission Implementation of the Energy Policy Act of 1992, compiled by Kenneth Rose, The National Regulatory Research Institute, NRRI 93-15, Columbus, Ohio (December 1993).

Kenneth Rose and Robert E. Burns, eds., *Regulatory Policy Issues and the Clean Air Act: Issues and Papers From the State Implementation Workshops*, The National Regulatory Research Institute, NRRI 93-8, Columbus, Ohio (July 1993).

Kenneth Costello, Robert E. Burns, Daniel J. Duann, Robert J. Graniere, Mohammad Harunuzzaman, and Kenneth Rose, *A Synopsis of The Energy Policy Act of 1992: New Tasks for State Public Utility Commissions*, The National Regulatory Research Institute, NRRI 93-7, Columbus, Ohio (June 1993).

Kenneth Rose and Robert E. Burns, *Regulatory Policy Issues and the Clean Air Act: An Interim Report on the State Implementation Workshops*, The National Regulatory Research Institute, NRRI 92-17, Columbus, Ohio (August 1992).

Kenneth Rose, Robert E. Burns, Jay S. Coggins, Mohammad Harunuzzaman, and Timothy W. Viezer, *Public Utility Commission Implementation of the Clean Air Act's Allowance Trading Program*, The National Regulatory Research Institute, NRRI-92-6, Columbus, Ohio (May 1992).

Raymond W. Lawton and Kenneth Rose, eds., *Regulatory Perspectives on Price Caps*, The National Regulatory Research Institute, NRRI-91-05, Columbus, Ohio (February 1992).

Narayan S. Rau, Kenneth Rose, Kenneth Costello, and Youssef Hegazy, *Methods to Quantify Energy Savings From Demand-Side Management Programs: A Technical Review*, The National Regulatory Research Institute, NRRI-91-11, Columbus, Ohio (October 1991).

Kenneth Rose and Robert E. Burns, Overview and Discussion of the Key Regulatory Issues in Implementing the Electric Utility Provisions of the Clean Air Act Amendments of 1990, The National Regulatory Research Institute, NRRI-91-10, Columbus, Ohio (June 1991).

Robert E. Burns, Kenneth Rose and Mark Eifert, *Implementing a Competitive Bidding Program for Electric Power Supply*, The National Regulatory Research Institute, NRRI-90-15, Columbus, Ohio (January 1991).

Robert E. Burns, Kenneth Rose, Kenneth W. Costello, and Narayan S. Rau, *Discussion Papers Reviewing* and Critiquing Comments on the Commission-Ordered Investigation on Transmission Access and Pricing, prepared under a contract between the NRRI and the Public Utilities Commission of Ohio (October 1990).

Robert E. Burns, Kenneth Rose, Kenneth W. Costello, and Daniel J. Duann, *Discussion Papers Reviewing* and *Critiquing Comments on the Commission-Ordered Investigation on Competitive Bidding*, prepared under a contract between the NRRI and the Public Utilities Commission of Ohio (September 1990).

J. M. Pfingston, K. Rose, A. Novickas, and R. G. Williams, *The Land Use Assessment System: A Field Manual and Computer User's Guide*, Draft Report, Argonne National Laboratory, Argonne, Illinois (April 1990).

T. D. Veselka, J. C. VanKuiken, G. D. Parker, and K. Rose, *Introduction to the Argonne Utility Simulation (ARGUS) Model*, Argonne National Laboratory Report ANL/EAIS-TM-10, Argonne, Illinois (March 1990).

Kevin Kelly, Robert E. Burns, and Kenneth Rose, *An Evaluation for NARUC of the Key Issues Raised by the FERC Transmission Task Force Report*, The National Regulatory Research Institute, NRRI-90-7, Columbus, Ohio (January 1990).

Robert E. Burns, Daniel J. Duann, Kenneth Rose, Kevin Kelly, and Narayan S. Rau, "Discussion Papers on Competitive Bidding and Transmission Access and Pricing Issues in the Context of Integrated Resource Planning," prepared under a contract between the NRRI and the Public Utilities Commission of Ohio (January 1990).

D. A. Hanson et al., *Regulatory and Infrastructure Impediments to the Efficient Use of Natural Gas*, Study 2 Report of the Natural Gas Initiative of the U.S. Department of Energy, Draft Report, Argonne National Laboratory, Argonne, Illinois (May 1988).

Kenneth Rose, *Economic Analysis of Electricity Self-Generation by Industrial Firms*, Ph.D. Dissertation, Department of Economics, University of Illinois at Chicago, Chicago (1988).

D. A. Hanson, K. Rose, and E. J. Kohout, *Analysis of the Distribution of NPC Respondents: Alternative Outlooks for Oil and Natural Gas*, Draft Report, Argonne National Laboratory, Argonne, Illinois (November 1986).

K. Rose, *Measures of Inputs and Outputs for Service Industries*, Draft Report, Argonne National Laboratory, Argonne, Illinois (May 1985).

K. Rose, S. LaBelle, R. Winter, and Y. Klein, *Impacts of the Proposed EPA Action to Reduce Leaded Gasoline Use on Minorities and Low-Income Households,* Argonne National Laboratory Report ANL/EES-TM-289, Argonne, Illinois (April 1985).

D. W. South, J. C. Nagle, J. W. Nagle, K. Rose, and R. C. Winter, *Local Effects of Tar Sands Development at the Tar Sands Triangle Site in Utah: A Socioeconomic Analysis*, Draft Report, Argonne National Laboratory, Argonne, Illinois (February 1985).

Kenneth Rose and David W. South, *Effects of Petroleum Market Deregulation on Minority and Low-Income Households: A Determinant Analysis and Research Agenda*, Draft Report, Argonne National Laboratory, Argonne, Illinois (January 1985).

D. W. South, J. C. Nagle, J. W. Nagle, K. Rose, and R. C. Winter, *Areawide and Local Effects of Tar Sands Development at the Sunnyside Site in Utah: A Socioeconomic Analysis*, Argonne National Laboratory Report ANL/EES-TM-249, Argonne, Illinois (April 1984).

Conference Papers

"Economics of Nuclear Energy Post Fukushima," 2012 TPUG/AEA Session, Chicago, IL, January 7, 2012, discussant.

"Unbundling Electric Services: U.S. Experience, Options, and Evaluation," Conference at Gakushuin University, Tokyo, Japan, March 22, 2004. (Appearance also.)

"A Reexamination of the Restructuring of the Electric Supply Industry," presented at the American Association for the Advancement of Science Annual Meeting and Science Innovation Exposition, Boston, Massachusetts, February 17, 2002 (appearance also).

"Retail Marketing Areas: Jump-Starting Electric Retail Competition While Short Circuiting Horizontal Market Power," *Advanced Workshop in Regulation and Competition: Network Industries In Transition*, 11th Annual Western Conference, Monterey, California, July 9, 1998.

"The Economics of Electric Utility Transition Costs," *Session II: Economics of Electric Industry Restructuring Transportation & Public Utilities Group, American Economic Association*, Chicago, Illinois, January 4, 1998.

"Some Additional Observations on the Developing Sulfur Dioxide Allowance Trading Market," Conference Proceedings, *Market Tools for Green Goals: Studies of the Use of Market Incentives to Resolve Environmental Problems* (Chicago: Board of Trade of the City of Chicago, 1997).

With Scott Hempling and Robert E. Burns, "Electric Utility Industry Restructuring and Transition Costs: Reconciling Economic Efficiency and Regulatory Consistency," White Paper #4, Joint NARUC/EEI Seminar: "Regulating in a Transitional Environment," Providence, Rhode Island, April 19, 1995.

"Twelve Common Myths of Allowance Trading: Improving the Level of Discussion on the Issue," panel on "Fine Tuning the Allowance Market," National Association of Regulatory Utility Commissioners 106th Annual Convention and Regulatory Symposium, Reno, Nevada, November 16, 1994.

"Tradable SO2 Permits With a Regulated Electric Industry," presented at "Marketable Emission Permits for the Protection of the Environment" session, Midwest Economics Association meeting, Chicago, Illinois, March 26, 1994.

"PUC Reactions and Regulatory Treatment of Allowance Trading," presented at "Clean Air Response: Achieving Compliance in an Evolving Market," cosponsored by Electric Power Research Institute, Cantor Fitzgerald, Centre Financial, Eagles Group, and Emissions Exchange, Baltimore, Maryland, March 3, 1994.

"The Environment and The Role of the Public Utility Commissions," presented at the 15th Annual North American Conference of the International Association for Energy Economics, Seattle, Washington, October 11, 1993.

"Regulatory Choices and the Energy Policy Act: Three Alternative Paths," presented at Conference on Future Power Needs in Pennsylvania, sponsored by the Pennsylvania Public Utility Commission, Harrisburg, Pennsylvania, September 27, 1993.

"Planning Versus Competition and Incentives: Conflicts, Complements, or Evolution?" presented at the Electricity and Federalism Symposium, Princeton University, Princeton, New Jersey, June 24, 1993.

"Public Utility Commission Treatment of Environmental Externalities," presented at the Seventh Annual Regulatory Educational Conference, sponsored by The Canadian Association of Members of Public Utility Tribunals, Banff, Alberta, Canada, May 12, 1993.

"Regulatory Treatment of Allowances and Compliance Costs," presented at Implementing Emissions Trading, held by The H. John Heinz III School of Public Policy and Management and The Pennsylvania Public Utility Commission, Pittsburgh, Pennsylvania (December 8, 1992).

"Regulatory Treatment of Emission Allowances and the Allowance Trading Market," presented at the Seminar on Power Contracting in a Competitive Market, sponsored by ECC, Inc., Arlington, Virginia (October 7, 1992).

"Public Utility Commission Policy and the Allowance Market: Some Implementation Issues," presented at "Will Utility Regulation Frustrate or Advance Environmental Reform? Regulatory Treatment of Clean Air Act Acid Rain Allowances," sponsored by The Federal Energy Bar Association and The American Bar Association Sections of Natural Resources, Energy and Environmental Law and Public Utility, Communications & Transportation Law in cooperation with Coordinating Group on Energy Law, Washington, D.C., May 20, 1992.

"Public Utility Commission Policy and the Allowance Market: Some Implementation Issues," presented at the National Conference of Regulatory Attorneys, Columbus, Ohio (May 5, 1992).

With Barry D. Solomon, "Privatization of Pollution Rights: Making the Market for SO2 Emissions," presented to the Association of American Geographers, San Diego, California (April 19, 1992).

"State Regulatory Policy and the Allowance Market: Ratepayers' Interest and Market Development," presented at the Conference on Electricity Law and Regulation, sponsored by The American Bar Association Sections of Natural Resources, Energy, and Environmental Law; Administrative Law and Regulatory Practice; and Public Utility, Communications and Transportation Law, Denver, Colorado (March 12, 1992).

With Mark Eifert, "Competitive Bidding for Power Supply: A Survey of State Public Utility Commissions and Investor-Owned Utilities," presented at NARUC Biennial Regulatory Information Conference, Columbus, Ohio (September 1990).

"Regulated Utility Pricing Incentives with Price Cap Regulation: Can It Correct Rate of Return Regulation's Limitations?" presented at the Forum on Alternatives to Rate Base/Rate of Return Regulation, sponsored by the Michigan Public Service Commission, Lansing, Michigan (May 1990).

With T. D. Veselka, "Market Penetration Potential of New Clean Coal Technologies," in proceedings *Utility Opportunities for New Generation*, Edison Electric Institute and Electric Power Research Institute, Boston, Massachusetts (1989).

With J. F. McDonald, "Relative Importance of Economic and Engineering Factors Influencing Industrial Cogeneration," in proceedings of the *Ninth International Conference, World Energy Markets: Coping with Instability*, International Association of Energy Economists, Calgary, Alberta, Canada (1987).

"Factors Influencing Industrial Cogeneration," in proceedings of the 16th Annual Meeting of the Illinois Economic Association, Chicago, Illinois (1986).

Testimony and Presentations Before Commissions

Before the Federal Energy Regulatory Commission, Affidavit, filed with Motion to Answer and Answer of Michigan Attorney General Bill Schuette and Michigan Governor Rick Snyder, Docket No. EC14-126-000, November 2014.

Before the Federal Energy Regulatory Commission, Affidavit, filed with Motion to Intervene, Protest, And Request for Hearing of Michigan Attorney General Bill Schuette and Michigan Governor Rick Synder, Docket No. EC14-126-000, October 2014.

Public Utilities Commission of Ohio, Application of Duke Energy Ohio, Inc., for the Establishment of a Charge Pursuant to Section 4909.18, Revised Code. (Case No. 12-2400-EL-UNC, et al.), 2013.

Public Utilities Commission of Ohio, Dayton Power and Light Electric Security Plan ("ESP") case (Case Nos. 12-426-EL-SSO, et al.), 2013.

Before the Federal Energy Regulatory Commission, Intervention, Comments and Protest of the Michigan Citizens Against Rate Excess on the Midwest Independent Transmission System Operator, Inc. proposal to change their capacity construct in Module E of their Open Access Tariff for deliverability of load modifying resources and inclusion of locational capacity market mechanisms, Docket No. ER11-4081-000, September 2011.

Pennsylvania Public Utility Commission, En Banc Public Hearing, testimony and presentation, "Current and Future Wholesale Electricity Markets," November 6, 2008.

Arizona Corporation Commission, presentation "Status of Competition/Restructuring in the Electric Supply Industry: A National View," October 4, 2007.

Illinois Commerce Commission, "Investigation of Rider CPP of Commonwealth Edison Company, and Rider MV of Central Illinois Light Company d/b/a/ AmerenCILCO, Of Central Illinois Public Service Company d/b/a AmerenCIPS, and of Illinois Power Company, d/b/a/ AmerenIP, pursuant to Commission Order regarding the Illinois Auction," No. 06-0800, On behalf of the People of the State of Illinois (the Illinois Attorney General), Direct Testimony March 15, 2007.

Illinois Commerce Commission, "Proposed tariff establishing a market value methodology pursuant to Section 16-112(a) of the Public Utilities Act to be effective post-2006 and related revisions to Rider PPO and other tariffs," No. 05-0159, Commonwealth Edison Company, On behalf of the People of the State of Illinois (the Illinois Attorney General), Direct Testimony June 8, 2005 and Rebuttal Testimony August 3, 2005.

Illinois Commerce Commission, "Proposal to implement a competitive procurement process by establishing Rider BGS, Rider BGS-L, Rider RTP, Rider RTP-L, Rider D, and Rider MV," Nos. 05-0160, 05-0161, and 05-0162, Central Illinois Light Company, Central Illinois Public Service Company, and Illinois Power Company, On behalf of the People of the State of Illinois (the Illinois Attorney General), Direct Testimony June 15, 2005 and Rebuttal Testimony August 10, 2005.

Before the Federal Energy Regulatory Commission, Public Utilities Commission of The State of California v. Sellers of Long Term Contracts to the California Department of Water Resources, California Electricity Oversight Board v. Sellers of Energy and Capacity Under Long-Term Contracts With the California Department of Water Resources, Docket No. EL02-60-003 and No. EL02-62-003 (Consolidated), Prepared Direct Testimony on Behalf of The California Electricity Oversight Board and The California Public Utilities Commission, Exhibit CAL-3 (filed October 2002).

Public Service Commission of West Virginia, Case No. 98-0452-E-GI, "General Investigation to determine whether West Virginia should adopt a plan for open access to the electric supply market and for the development of a deregulation plan," (testimony on behalf of the Staff of the West Virginia Public Service Commission, addressing June 15, 1999 Initial Positions, filed July 15, 1999; Direct testimony, "Market Power in Electric Power Industry," August 20, 1999).

The Public Utilities Commission of Nevada, "In Re Investigation of Issues To Be Considered As a Result of Restructuring of Electric Industry" (pursuant to NRS 704.965 to 704.990, inclusive) proposed Regulation of the Public Utilities Commission of Nevada, October 19, 1998. (Comment on "Provider of Last Resort Service," in PUCN Docket No. 97-8001).

The Arizona Corporation Commission, "In the Matter of the Competition in the Provisions of Electric Services Throughout the State of Arizona," submitted January 21, 1998; cross examination, February 23, 1998. (Direct Testimony in Docket No. U-0000-94-165.)

The Arizona Corporation Commission, "In the Matter of the Competition in the Provisions of Electric Services Throughout the State of Arizona," submitted February 4, 1998; cross examination, February 23, 1998. (Rebuttal Testimony in Docket No. U-0000-94-165.)

The Public Service Commission of the State of Mississippi, "Benefits to Mississippi from Competition and Treatment of Utility Uneconomic Cost," April 14, 1997. (Comments addressed at Docket No. 96-UA-389.)

Testimony and Presentations Before Legislatures

Electric Markets, Price Trends, and Electric Choice, before the Michigan House Energy and Technology Committee, March 12, 2013.

Performance of Retail Electricity Market, written testimony and presentation before the House Public Utilities Committee, Ohio House of Representatives, February 5, 2008.

Testimony and presentation before the Guam Legislature on Proposed Bill No. 122, January 9, 2008.

Status of State Retail Markets, presentation to the Energy and Technology Committee, Michigan House of Representatives, Lansing, Michigan, April 12, 2007.

"Electric Retail Competition: Is it Working? - The State and National Perspective," presentation to the Energy and Technology Committee Informational Forum, Hartford, Connecticut, March 8, 2007.

"2004 Performance Review of Electric Power Markets," presentation to the Commission On Electric Utility Restructuring, Virginia General Assembly, Richmond, Virginia, December 19, 2006.

Status of State Retail Markets, presentation to the Electric Utility Oversight Committee, Illinois House of Representatives, Springfield, Illinois, October 9, 2006.

"Electricity Market Overview," presentation to the Technology and Energy Committee, Michigan Senate, Lansing, Michigan, April 26, 2006.

"Summary of State Restructuring and Market Activities," Presentation to the Electric Utility Oversight Committee, Illinois House of Representatives, Springfield, Illinois, May 17, 2005.

"Electric Utility Regulation Issues: An Introduction, Historical Development and Traditional Regulatory System" and "Status of Wholesale and Retail Competition," House Commerce and Labor Committee, Virginia General Assembly, Richmond, Virginia, December 16, 2004.

"2004 Performance Review of Electric Power Markets," Commission on Electric Utility Restructuring, Virginia General Assembly, Richmond, Virginia, November 23, 2004.

"Developments in Electric Industry Restructuring in the U.S.," Technology and Energy Committee, Michigan Senate, Lansing, Michigan, February 18, 2004.

"A Review of Electric Power Markets in the U.S.," Presentation to the Commission on Electric Utility Restructuring, Virginia General Assembly, November 19, 2003.

"Performance Review of Electric Power Markets," presentation to the Legislative Transition Task Force, Virginia General Assembly, Richmond, Virginia, November 26, 2002.

"Performance of Electric Power Markets," Presentation to the Kansas State Legislature, Special Committee on Utilities, October 11, 2001. "Performance Review of Electric Power Markets," Presentation to the Legislative Transition Task Force, Virginia General Assembly, Richmond, Virginia, September 7, 2001.

"Mandatory Rate Discounts: Lessons Learned from Other States," House Public Utilities Committee, Ohio General Assembly, Columbus, Ohio, May 12, 1999.

U.S. House of Representatives Committee on Commerce, Subcommittee on Energy and Power, "Electricity Competition: Market Power, Mergers, and PUHCA," May 6, 1999.

"Who Should Supply Non-Choosing Customers?" Nevada Senate, Committee on Commerce and Labor, Carson City, Nevada, March 17, 1999. "Who Should Supply Non-Choosing Customers?" Nevada Assembly, Committee on Government Affairs, Carson City, Nevada, March 16, 1999.

"New Electric Supply Market Structure," Special Task Force on Electricity Restructuring, Kentucky General Assembly, Frankfort, Kentucky, March 8, 1999.

"Ohio's Proposed Retail Marketing Areas," Iowa General Assembly, Deregulation and Restructuring of the Electric Utility Industry Study Committee, Des Moines, Iowa, November 23, 1998.

"Electric Utility Securitization," presented to State of Vermont House of Representatives, House Electric Utility Regulatory Reform Committee, Montpelier, Vermont, October 1, 1997.

"Performance-Based Ratemaking," presented to State of Vermont House of Representatives, House Electric Utility Regulatory Reform Committee, Montpelier, Vermont, October 1, 1997.

"Electric Industry Restructuring: Activities and Issues Around the Country," presented to Indiana General Assembly, Regulatory Flexibility Committee, Indianapolis, Indiana, September 10, 1997.

"Securitization of 'Stranded Costs': Benefits and Risks to Customers," presented to the Kansas Retail Wheeling Task Force, Topeka, Kansas, September 3, 1997.

"Stranded Costs," presented to the Kansas Retail Wheeling Task Force, Topeka, Kansas, September 3, 1997.

General Assembly of the State of Ohio, Joint Committee on Electric Utility Deregulation, May 8, 1997. (Comments)

U.S. House of Representatives, Committee on Government Reform and Oversight House of Representatives, Subcommittee on the Postal Service, April 16, 1997. (Prepared statement published in Hearing proceedings for H.R. 22, The Postal Reform Act of 1997.)

U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Energy and Power, "The SO2 Emissions Trading Program: Events and Lessons So Far," October 5, 1994. (Written testimony published in *PUR Utility Quarterly, A Special Supplement*, Fourth Quarter, 1994.)

<u>Selected Conference and Other Appearances</u> (2000 to the present; does not include all IPU training and educational programs, such as the annual Regulatory Studies Program ("Camp NARUC"), Advanced Regulatory Studies Program, Grid School, and Michigan Forum)

The 37th Annual National Conference of Regulatory Attorneys, "Session XV," Columbus, Ohio, June 18, 2014.

The 36th Annual National Conference of Regulatory Attorneys, "Session I – Why Regulation Is Important," San Francisco, California, June 17, 2013.

The 35th Annual National Conference of Regulatory Attorneys, "Why Regulation Matters IV (and how to improve it)," Indianapolis, Indiana, May 21, 2012.

The 34th Annual National Conference of Regulatory Attorneys, "Why Regulation Matters III (and How to Improve It)," Missoula, Montana, June 6, 2011.

The 33rd Annual National Conference of Regulatory Attorneys, "Why Regulation Matters Today–More than In Decades," June 21, 2010, Charleston, West Virginia.

The 32nd Annual National Conference of Regulatory Attorneys, "Why Regulation Does Not Fail Us (Unless We Fail Regulation)," June 1, 2009, Las Vegas, Nevada.

Cap & Trade Workshop, 2009 Mid-America Regulatory Conference, June 16, 2009, Traverse City, Michigan.

"Procedures for Implementing the 'PURPA Standards' in the Energy Independence and Security Act of 2007," E-Forum, sponsored by American Public Power Association, Edison Electric Institute, National Association of Regulatory Utility Commissioners, and National Rural Electric Cooperative Association, August 21, 2008.

"Status of Retail Electric Supply Competition," Thirty-First Annual National Conference of Regulatory Attorneys, Charleston, South Carolina, June 11, 2008.

"Status of Retail Competition in the U.S. Electric Supply Industry," 12th Annual Ohio Energy Management & Restructuring Conference, Columbus, Ohio, February 27, 2008.

"The Impact of Competition on Electricity Prices: Can We Discern a Pattern?," presented at the Harvard Electricity Policy Group Forty-Ninth Plenary Session, Los Angeles, California, December 6, 2007.

"Independent Market Monitoring of RTOs and ISOs," 30th Annual National Conference of Regulatory Attorneys, Bismarck, North Dakota, June 4, 2007.

State Retail Price Comparisons, Michigan Manufacturers Association CEO Forum, Lansing, Michigan, May 8, 2007.

"Perspective on the National Electricity Marketplace," 11th Annual Ohio Energy Management & Restructuring Conference, Columbus, Ohio, February 28, 2007.

Energy Virginia Conference, "A Greener Energy Pasture for Virginia's Economy," Virginia Military Institute, Lexington, Virginia, October 17, 2006.

"Status of Competition," Michigan Electric Power Conference, Crystal Mountain Resort, Thompsonville, Michigan, July 20, 2006.

"Who's Smiling Now?: A Comparison of Electricity Rates in Restructured and Non-Restructured States," National Association of State Utility Consumer Advocates Mid-Year Meeting, Memphis, Tennessee, June 12, 2006. "Status of Markets and Market Manipulation Control," 29th Annual National Conference of Regulatory Attorneys, Scottsdale, Arizona, June 13, 2006.

"Electricity Market Overview," Michigan Municipal Electric Association, 2006 Spring Conference, Marshall, Michigan, May 11, 2006.

"Procedures for Implementing the PURPA Standards," E-Forum, sponsored by American Public Power Association, Edison Electric Institute, National Association of Regulatory Utility Commissioners, and National Rural Electric Cooperative Association, May 4, 2006.

"Developments in National Electricity Markets and Policy," 2006 Michigan Forum on Telecommunications and Energy Regulatory Policy, Institute of Public Utilities, Michigan State University, East Lansing, Michigan, January 27, 2006.

37th Annual Regulatory Policy Conference, Institute of Public Utilities, Richmond, Virginia, "Workshop I: From Spectrum to Energy: What Regulators Need to Know About Auctions," December 4, 2005; and "Can We Make Markets Work? Performance and Oversight," December 6, 2005.

"FERC's Market Power Proceeding: The Current State of the Federal Regulatory Landscape," NARUC 117th Annual Convention, Palm Springs, California, November 15, 2005.

47th Annual Regulatory Studies Program, Institute of Public Utilities, Michigan State University, East Lansing, Michigan, "Electricity: Economics, Structure, & Regulation," August 1, 2005; "Electric Transmission Networks and Markets" and "Wholesale Electric Market Design and Performance," August 9, 2005; and "Retail Electric Market Design & Performance," August 10, 2005.

"The Future of Deregulation: Is It Really Dead or Will It Be An Aspect of Our Future?," National Rural Utilities Cooperative Finance Corporation, Forum 2005, Hollywood, Florida, July 29, 2005.

2005 Advanced Regulatory Studies Program, Institute of Public Utilities, Michigan State University, East Lansing, Michigan, "LMP and FTRs" and "Regional Transmission Models," April 26, 2005 and "Market Performance," April 27, 2005.

"The State of Competition in Utility Industries: Why are the Outcomes Different? (Keynote address), Pennsylvania Public Utility Law Conference, Pennsylvania Bar Institute Program, Harrisburg, Pennsylvania, January 26, 2005.

2005 Michigan Forum on Telecommunications and Energy Regulatory Policy, Institute of Public Utilities, January 21, 2005.

Camp NARUC 2004: The 46th Annual NARUC Regulatory Studies Program, "Retail Electric Market Design and Performance" August 11, 2004; "Wholesale Electric Market Design and Performance" August 10, 2004; "Electric Transmission Markets" August 10, 2004; "Electricity: Economics, Structure, and Regulation, August 2, 2004; "Roundtable: The Public Utility Industries Compared, Electricity" August 2, 2004.

"Does Competition Hurt Reliability? An Economist's View On How to Avoid Another Major Blackout" (Keynote address), GasFair Power Summit 2004, 13th Annual North American Natural Gas & Electricity Market Conference & Trade Show, Presented by Canadian Enerdata Ltd., Toronto, Canada, May 18, 2004.

"What Conditions are Necessary for Competition to Provide Benefits to Illinois Customers?" Post 2006 Symposium, Panel: Developing Electric Competition in Illinois, Chicago, Illinois, April 29, 2004.

"Developments in U.S. Retail Electric Markets," The Central Research Institute of Electric Power Industry, Tokyo, Japan, March 24, 2004.

"Unbundling Electric Services: U.S. Experience, Options, and Evaluation," Conference at Gakushuin University, Tokyo, Japan, March 22, 2004. (Paper presented also.)

"Updates and Summary of '2003 Performance Review of Electric Power Markets," IPU Online Webcast, October 9, 2003.

Camp NARUC 2003: The 45th Annual NARUC Regulatory Studies Program, "Energy Market Performance Monitoring and Assessment," August 12, 2003; "Market Design for Electricity," August 12, 2003; "Electricity: Economics, Structure, and Regulation," August 4, 2003; "Roundtable: The Public Utility Industries Compared," August 4, 2003.

"FERC Standard Market Design," Michigan Electric Power Conference, Gaylord, Michigan, July 11, 2003.

"PJM and Midwest Developments," American Association of Blacks in Energy 2003 Annual Conference, Philadelphia, Pennsylvania, April 23, 2003.

"Congestion Revenue Rights and FERC's Proposed Transmission Incentive Policy Staff," Subcommittee on Electricity, NARUC Winter Committee Meetings, Washington, D.C., February 23, 2003.

"Electric Restructuring Overview," The Michigan Forum 2003 On Telecommunications and Energy Regulatory Policy, East Lansing, Michigan, February 7, 2003.

"Wholesale Market Design -- Where are We and Where are We Headed?" presented at "Energy Markets at the Crossroads," The Institute for Regulatory Policy Studies, Illinois State University, Springfield, Illinois, December 12, 2002.

"The Evolving Regulatory Paradigm," panel: "Back in the Bottle: Is Re-Regulation a Reality?" presented at "Fiscal Fitness -- The Financial Condition of the Utility Industries and the Role of Regulation," Annual Regulatory Policy Conference, Institute of Public Utilities, Michigan State University, Tampa, Florida, December 10, 2002.

"Congestion Revenue Rights Workshop," NARUC 114th Annual Convention, Staff Subcommittee on Electricity, Chicago, Illinois, November 10, 2002.

"Measuring Market Power & Market Monitoring," 44th Annual NARUC Regulatory Studies Program, Michigan State University, East Lansing, Michigan, August 14, 2002.

"Retail Pricing Issues for Electricity," 44th Annual NARUC Regulatory Studies Program Michigan State University, East Lansing, Michigan, August 8, 2002.

"Applied Marginal-Cost Pricing," 44th Annual NARUC Regulatory Studies Program Michigan State University, East Lansing, Michigan, August 8, 2002.

"Overview of Wholesale Standard Market Design," Standard Market Design Workshop, NARUC Summer Committee Meeting, July 28, 2002.

"A Reexamination of the Restructuring of the Electric Supply Industry," presented at the American Association for the Advancement of Science Annual Meeting and Science Innovation Exposition, Boston, Massachusetts, February 17, 2002 (conference paper also).

"Wholesale and Retail Market Overview," NARUC Winter Committee Meetings, Committee on Electricity, Washington, D.C., February 11, 2002.

"Developments in Electricity Policy, The View from the Public Utility Commissions in the Seventh District States," Federal Reserve Bank of Chicago, Electricity Policy in the Midwest, Chicago, Illinois, January 17, 2002 (presented and moderated the panel).

"Properly Structured Incentive Plans," Electric Roundtable Discussion Group, held by the Missouri Public Service Commission, Jefferson City, Missouri, December 17, 2001.

"End of the Road for Retail?" Energy Bar Association, Mid-Year Meeting, November 30, 2001.

"Opportunities for Cogeneration and On-site Generation in a Restructured Environment," Midwest Cogeneration Association, Fifteenth Annual Non-Utility Power Conference, September 25, 2001.

"Evaluating State Competition Retail Performance," Camp NARUC 2001, Institute of Public Utilities, Michigan State University, August 14, 2001.

"Monitoring Power Markets," Camp NARUC 2001, Institute of Public Utilities, Michigan State University, August 13, 2001.

"State of the Market Report to the Committee on Electricity," NARUC Summer Committee Meetings, Seattle, Washington, July 16, 2001.

"What is Market Power and Why Should We Care About It?," NRRI Market Power Conference, Columbus, Ohio, April 10, 2001.

"Competition In Wholesale Power Markets," National Governors Association, Center for Best Practices, Philadelphia, Pennsylvania, April 6, 2001.

"Retail Market Power Issues," 2001 NASUCA Capitol Hill Conference, "California Aftershocks: What Must Be Done to Make Restructuring Work?" Washington, DC, April 5, 2001.

"Electric Restructuring's Impact on Non-Restructuring States," "Current Issues Challenging The Utility Industry," Center for Public Utilities, New Mexico State University, Santa Fe, New Mexico, March 27, 2001.

"Market Monitoring and Detecting Market Power," NARUC Winter Committee Meetings Staff Subcommittee on Electricity, February 25, 2001.

"The California Electric Restructuring Meltdown and the Fallout in Other States," National Conference of State Legislatures, AFI/ASI Joint Winter Meeting, AFI Energy and Transportation Committee, December 13, 2000.

"Current Level of Electric Regulation: Summary of State Retail Access," Wisconsin Public Utility Institute, Fundamental Course: Energy Utility Basics, Madison, Wisconsin November 15, 2000.

"Unbundling Experiences From Around the Country," Functional Unbundling, Infocast Conference, Chicago, Illinois, November 2, 2000.

"Open Access and Retail Choice Markets," Institute of Public Utilities, NARUC Advanced Regulatory Studies Program, Cincinnati, Ohio, October 10, 2000.

"Open Access Retail Models in Electricity," Camp NARUC 2000, NARUC Annual Regulatory Studies Program, August 7, 2000.

"Transmission Pricing Mechanisms and Implications," NARUC Summer Committee Meetings, Subcommittee On Strategic Issues, Los Angeles, July 24, 2000.

"Electric Retail Access: What Have We Learned From the Early States?," Electric Power Industry Special Institute, Sponsored by the Energy & Mineral Law Foundation, Columbus, Ohio, June 22, 2000.

"A MARC Regional Transmission Organization: Your Worst Nightmare?," Mid-America Regulatory Commissioners Meeting, MARC 2000, St. Louis, Missouri, June 12, 2000.

"Market Power and Competition in the Electric Industry: Derailment Ahead?, 2000 NASUCA Capitol Hill Conference, "Retail Competition: Right Train, Wrong Track?" March 20, 2000.

"Reliability Pressure Points of the Barton Bill and FERC Order 2000: Considerations for State Regulators," NARUC Winter Committee Meetings, Washington, D.C., March 6, 2000.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/22/2014 2:59:18 PM

in

Case No(s). 14-1297-EL-SSO

Summary: Testimony Direct Testimony of Kenneth Rose, Ph.D. on Behalf of the Office of the Ohio Consumers' Counsel electronically filed by Patti Mallarnee on behalf of Sauer, Larry S.