

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of The Ohio )  
Edison Company, The Cleveland Electric )  
Illuminating Company, and The Toledo Edison )  
Company For Authority to Establish 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 DAVID SCARPIGNATO ON BEHALF OF**  
**RETAIL ENERGY SUPPLY ASSOCIATION**

**December 22, 2014**

## TABLE OF CONTENTS

QUALIFICATION OF THE WITNESS.....	1
RIDER RRS .....	3

1   **QUALIFICATION OF THE WITNESS**

2   **Q1.   Please state your name and business address.**

3   **A1.**   My name is David J. Scarpignato. My company's business address is 12 Greenway Plaza,  
4           Houston, TX 77046.

5

6   **Q2.   By whom are you employed and in what capacity?**

7   **A2.**   I am Director, Government and Regulatory Affairs for Direct Energy, LLC ("Direct Energy").

8

9   **Q3.   How long have you been employed in your current position?**

10  **A3.**   I have been employed in my current position with Direct Energy since October 2010.

11

12  **Q4.   Please explain the job responsibilities and duties in your current position.**

13  **A4.**   I am responsible for Direct Energy's regulatory monitoring and advocacy at PJM  
14           Interconnection, LLC ("PJM") and also participate in Direct Energy's advocacy at the Federal  
15           Energy Regulatory Commission ("FERC").

16

17  **Q5.   Please describe your educational background and relevant work experience prior to**  
18           **joining Direct Energy as well as any prior positions at Direct Energy.**

19  **A5.**   I hold a Bachelor of Science degree in electrical engineering from Rutgers University, a Master  
20           of Science degree in instructional technology from Towson University, and a Master of  
21           Business Administration degree from the Robert H. Smith School of Business at the University  
22           of Maryland. I am a certified Engineer in Training ("EIT"). I have held positions in the field of  
23           electric rate regulation and electric utility operations and planning since 1990, advising private  
24           companies and governmental entities nationally and globally on such matters, first at General

1 Physics Corporation, followed by the energy consulting firm Performance Enhancement, Inc.,  
2 then Baltimore Gas and Electric Company ("BGE"), and the Old Dominion Electric  
3 Cooperative ("ODEC").  
4

5 **Q6. Have you ever testified before a regulatory agency?**

6 **A6.** Yes. I have testified before FERC.  
7

8 **Q7. Who are you testifying on behalf of today?**

9 **A7.** The Retail Energy Supply Association or RESA.  
10

11 **Q8. What is the Retail Energy Supply Association?**

12 **A8.** RESA is a broad and diverse group of retail energy suppliers who share the common vision that  
13 competitive energy retail markets deliver a more efficient, customer-oriented outcome than  
14 regulated utility structure. Several RESA members are certificated as competitive retail electric  
15 service ("CRES") providers and active in the Ohio retail market. Specifically, some of RESA's  
16 members currently provide CRES to customers in the FirstEnergy area. The testimony that I  
17 am presenting may represent the position of RESA as an organization, but may not represent  
18 the views of any particular RESA member. RESA's members include: AEP Energy, Inc.;  
19 Champion Energy Services, LLC; Consolidated Edison Solutions, Inc.; Constellation  
20 NewEnergy, Inc; Direct Energy Services, LLC; GDF SUEZ Energy Resources NA, Inc.;  
21 Homefield Energy; IDT Energy, Inc.; Integrys Energy Services, Inc.; Interstate Gas Supply,  
22 Inc. dba IGS Energy; Just Energy; Liberty Power; MC Squared Energy Services, LLC; Mint  
23 Energy, LLC; NextEra Energy Services; Noble Americas Energy Solutions LLC; NRG Energy,  
24 Inc.; PPL EnergyPlus, LLC; Stream Energy; TransCanada Power Marketing Ltd.; and TriEagle



1 Energy, L.P. The testimony expressed in this filing represents only that of RESA as an  
2 organization and not necessarily the views of each particular RESA member.

3  
4 **Q9. What is the purpose of your testimony?**

5 **A9.** I oppose the proposed Rider Retail Rate Stability (“Rider RRS”) for the multitude of reasons  
6 explained below.

7  
8 **RIDER RRS**

9 **Q10. Please provide an overview of the proposed Rider RRS of Ohio Edison Company, The**  
10 **Cleveland Electric Illuminating Company and The Toledo Edison Company (“the**  
11 **Companies”).**

12 **A10.** Under the proposed Rider RRS, the Companies would enter into contracts with their  
13 unregulated affiliate (FirstEnergy Solutions Corp. or “FES”) to purchase the output from the  
14 Davis-Besse Nuclear Power Station, W.H. Sammis Plant, and FES’s share of the output of the  
15 Ohio Valley Electric Corporation (“OVEC”) assets (Kyger Creek Plant and Clifty Creek Plant).  
16 The Companies would then sell the capacity, energy, and ancillary services into the relevant  
17 PJM markets. The proposed Rider RRS guarantees the Companies recovery of their costs and  
18 profit margins because, if the revenues from selling the capacity, energy, and ancillary services  
19 into the relevant PJM markets do not cover the Companies’ “costs” (which include a proposed  
20 guaranteed 11.15% return on equity), then customers would make up the difference on a non-  
21 bypassable basis through Rider RRS. And, vice versa, if the revenues exceed the Companies’  
22 “costs” (which include a proposed guaranteed 11.15% return on equity), then customers would  
23 get a credit through Rider RRS.

1 **Q11. Does RESA oppose Rider RRS?**

2 **A11.** Yes. The Commission should reject Rider RRS in its entirety. The units in question have no  
3 handicap except that the un-regulated affiliates of the Companies do not like the prices for  
4 their output coming from the wholesale competitive marketplace. Indeed, the Companies put  
5 forth evidence that the plants in question meet all current Environmental Protection Agency  
6 ("EPA") standards and all upcoming standards, including Clean Air Interstate Rule ("CAIR"),  
7 Cross State Air Pollution Rule ("CSAPR"), Mercury Air Toxics Standard ("MATS") and  
8 Greenhouse Gas ("GHG") requirements. Direct Testimony of Harden at 9-12. FirstEnergy  
9 Corp. (the parent of the Companies) appears to have so little faith in the market forecasts  
10 regarding whether the units will be economic that they instead have the Companies, file for a  
11 guaranteed recovery (Rider RRS) of these costs, foregoing any possible inframarginal  
12 revenues.

13  
14 These units should be required to compete in wholesale supply of electricity so that consumers  
15 receive the benefit of the cheapest resource being dispatched to meet their needs. Additionally,  
16 economic investment decisions should be made based on price signals and investors attempting  
17 to make wise investment choices. Under Rider RRS, the Companies are free to make poor  
18 choices of which assets to run without negative consequence to their shareholders. Perversely,  
19 even if through poor company analysis and decisions, uneconomic assets are chosen as supply  
20 by the Companies, the shareholders still earn the same, excellent returns of 11.15% on these  
21 assets. In economics, higher returns are needed for higher risk investments. The Companies'  
22 Rider RRS is essentially zero risk to the Companies and FES, and certainly does not warrant a  
23 double-digit return with full risk on the backs of captive ratepayers. The generation units at  
24 issue should compete in the PJM marketplace like all other generation units in the PJM

1 footprint if they are looking for double digit returns. Ratepayers should not be forced to  
2 guarantee the revenues and profits for these plants.

3  
4 **Q12. Please explain how PJM ensures adequate and reliable electricity supply for all**  
5 **ratepayers within PJM's footprint, including Ohioans.**

6 **A12.** PJM's capacity market construct, the reliability pricing model or "RPM", ensures there is  
7 sufficient capacity to serve all customers in PJM, including capacity to meet an installed  
8 reserve margin. Likewise, the energy market, using locational marginal pricing or "LMP",  
9 coordinates the continuous buying and selling of electricity in real-time for customer  
10 consumption and to meet an operating reserve requirement. PJM is responsible for "keeping  
11 the lights on" across the entire PJM footprint. The bulk power grid is maintained to meet the  
12 reliability target through a combination of resource adequacy and transmission build.

13  
14 RPM produces price signals to clear existing generation and new generation to meet the  
15 resource adequacy targets of future years given load growth and generation retirements.  
16 Generators offer into RPM at their cost and are placed in a supply stack that clears against  
17 expected demand. Only the least-cost generators needed to meet the expected load are cleared.  
18 Through this process, potential new generation learns the cost they would need to achieve to  
19 competitively clear. Generator cost offers are a combination of all-in costs net of annual  
20 energy and ancillary service revenues. Hence, the capacity market and energy market are not  
21 mutually exclusive, but rather intertwined. RPM chooses the cheapest capacity resources  
22 considering both capacity resource total costs and energy market revenues. Therefore, to help  
23 ensure one clears the capacity market, generators are incented to maximize their operational



1 efficiency and energy revenues so that their capacity offer costs, which are net of energy  
2 revenues, are as low as possible when they compete in RPM to clear.

3  
4 Each electric utility that belongs to PJM (all of the Ohio utilities belong to PJM) ceded  
5 responsibility for reliability to PJM. Even if the plants that are part of the Rider RRS scheme  
6 would close, PJM would ensure reliability. PJM will fulfill this role no matter what Ohio does  
7 with the individual utilities, but not very efficiently if state-subsidized generation is allowed to  
8 undermine its markets. Should the Commission approve the Company's RRS proposal, Ohio's  
9 efforts to save these plants from the speculative closure put forth by the Companies will be a  
10 shot in the dark occurring in a vacuum separate from the central planning of PJM. Saving these  
11 plants does not thwart any reliability concerns.

12  
13 **Q13. Do you believe that PJM would react to Commission approval of Rider RRS?**

14 **A13.** Yes. PJM would need to do something to prevent the Electric Security Plan ("ESP")  
15 generation from interfering with and undermining RPM. Otherwise, this interference would  
16 distort the price signals produced by RPM and threaten the entire RPM construct because PJM  
17 uses the capacity market signals to maintain existing generation and incent new generation.  
18 With the lower signals due to subsidized generation price suppression, potential new generation  
19 would be fearful of falling victim to future incorrect price signals as a result of unforeseen  
20 future subsidized generation. RPM would be less effective in meeting reliability when market  
21 signals are suppressed or manipulated. The resource adequacy and reliability of the entire  
22 system, including the Companies', is in jeopardy if PJM ignores the ESP as planned. PJM is  
23 unlikely to ignore the proposed ESP.



1 **Q14. What would PJM likely do in response to Rider RRS if it is approved?**

2 **A14.** PJM is likely to modify its own rules in response to the ESP by removing the subsidy from the  
3 Rider RRS generation and any other subsidized generation in its offers. Currently, existing  
4 generation does not have a minimum offer price requirement. The PJM Minimum Offer Price  
5 Rule (MOPR) only applies to new generation and was designed to prevent load interests from  
6 artificially depressing RPM price signals by offering new generation into RPM at below cost.  
7 MOPR requires that actual costs be calculated for new generation offers using standardized  
8 costing guidelines and assumptions in addition to adding any subsidy revenues into the cost.  
9 The MOPR prevents the subsidized resources from offering into RPM at deflated prices  
10 thereby greatly reducing the likelihood that guaranteed or subsidized generation will clear  
11 RPM.

12  
13 PJM probably would add a MOPR rule for existing generation that is subsidized or guaranteed.  
14 The MOPR rule likely would force Rider RRS generation and any other subsidized generation  
15 to offer into RPM at its actual costs using standardized costing guidelines and assumptions in  
16 addition to adding any subsidy revenues into the cost. Forcing subsidized generation to offer in  
17 at real costs greatly reduces the chance it will clear.

18  
19 **Q15. Is your belief that PJM will react to the ESP and Rider RRS based upon historical**  
20 **context?**

21 **A15.** Yes. A primary reason I believe PJM is likely to change its own rules in response to the ESP  
22 is because of history. PJM modified its rules in response to proposed new subsidized  
23 generation in New Jersey and Maryland as described above. The rules were modified in the  
24 New Jersey and Maryland cases for new generation. Existing generation has always been

1 allowed to offer in at \$0/MW because it was already built and if its total revenues including  
2 energy revenues were not enough to cover its costs, it would eventually exit the market.  
3 Subsidized generation is always guaranteed to recover its costs and would not exit the market  
4 and thereby would displace better resources and prevent new, more economic generation from  
5 coming on line. Hence, the Rider RRS would require PJM to institute an existing resource  
6 MOPR for subsidized or guaranteed generation.

7  
8 **Q16. What will the effect on the RRS Rider be if PJM changes their RPM rules in response to**  
9 **the subsidization?**

10 **A16.** As stated above, PJM is very likely to institute an existing resource MOPR for Rider RRS  
11 subsidized generation and any other subsidized generation. To describe the effects of this  
12 MOPR addition, let's first look at what would happen with the Rider and no MOPR rule as  
13 currently. The Companies and FES would be incented to offer the subsidized generation into  
14 RPM as a price taker (\$0/MW) to ensure it clears. The resource would still receive the RPM  
15 clearing price regardless of its offer. The RPM revenues would then be used to reduce the  
16 amount of subsidy paid by the Companies' ratepayers. Therefore, the ESP would in essence  
17 have the Companies' ratepayers paying the amount of subsidized generation costs that is  
18 greater than RPM revenues for said generation. The anticipated result by the Companies is  
19 naive given that PJM almost undoubtedly will change its rules in response to the subsidized  
20 generation, probably updating its MOPR for "existing" subsidized generation as it did for  
21 proposed "new-build" subsidized generation in New Jersey and Maryland.

22  
23 With a MOPR for existing generation that has a Rider, the Companies would not be able to  
24 offer into RPM as a price taker, and instead would have to offer in at actual costs as monitored

1 by PJM and the Market Monitoring Unit. The likelihood of these units receiving no RPM  
2 revenue just changed from nearly impossible, to very likely. To add a "wrinkle", clearing one  
3 RPM auction would not prevent the Companies' Rider RRS subsidized generation from failing  
4 to clear the next RPM auction. Therefore, the Companies might clear some years and not other  
5 years if they clear any years at all.

6  
7 **Q17. What happens if the Companies' generation assets do not clear RPM?**

8 **A17.** The Companies' ratepayers would pay the full cost of the Rider RRS subsidized generation  
9 capacity because there is no offsetting RPM revenue. Under the current rules, if the actual cost  
10 of the Companies' Rider RRS generation was \$1,000 for the year, the Rider RRS generation  
11 would clear RPM as a price-taker. Now let's say RPM resulted in \$800 of revenue. The  
12 Companies' ratepayers would pay the \$200 of uncollected costs.

13  
14 However, with updated MOPR rules, RPM would likely result in \$0 of revenue and the  
15 Companies' ratepayers would pay the full \$1,000 of uncollected costs in a concentrated  
16 fashion. By a concentrated fashion, I mean that the \$800 was spread across the entire PJM  
17 footprint, but would now be only paid by the Companies' ratepayers. This point is further  
18 explained in response to Questions 23 below.

19  
20 Perhaps the worst part of the ESP in combination with the PJM rule changes is that it will  
21 prompt ratepayers to double pay for reliability. As described above, the Companies' ratepayers  
22 will pay the full cost of the Companies' Rider RRS generation capacity through the Rider RRS  
23 when the resources fail to clear RPM at their real costs. Additionally, PJM will not count the  
24 Companies' Rider RRS generation at all as resources used in meeting the region's resource



1 adequacy needs. PJM will then purchase additional capacity to cover all the resource adequacy  
2 needs of the entire PJM region including the Companies. PJM will then charge the Companies  
3 who will in turn charge ratepayers for the replacement capacity in addition to the Companies'  
4 charges for its Rider RRS-subsidized generation capacity through Rider RRS.

5  
6 The good news is that, thanks to the likely PJM MOPR changes, the capacity market will not  
7 be undermined as severely. The bad news is that the Companies' customers will be paying for  
8 all the Companies' Rider RRS-subsidized generation in a concentrated fashion at an out-of-  
9 market cost.

10  
11 **Q18. Is there evidence the PJM capacity market is working as intended in Ohio?**

12 **A18.** Yes. The PJM capacity market, through RPM, does incent reliable, economic generation. The  
13 recent RPM auction results in the base residual auctions demonstrates the market mechanisms  
14 PJM has in place will provide sufficient revenue to support both new generation and existing  
15 generation. In the American Transmission Systems Inc. ("ATSI") (FE Ohio) zone, the annual  
16 resource clearing price for the June 1, 2015-May 31, 2016 planning year is \$357.00 / MW-day.  
17 Additionally, the ATSI zone annual resource clearing price for the June 1, 2016 – May 31,  
18 2017 period is \$114.23 / MW-day and for the June 1, 2017 – May 31, 2018 period is \$120.00 /  
19 MW-day. These prices are dramatic increases over the previous ATSI zone BRA results  
20 (\$16.46 / MW-day for the June 1, 2012 – May 31, 2013 period, \$27.73 / MW-day for the June  
21 1, 2013 – May 31, 2014 period, and \$125.99 for the June 1, 2014 - May 31, 2015 period) and  
22 show that sufficient revenue can be generated from the current auction mechanisms to support  
23 the continued economic operation of existing generation assets in the ATSI zone. Perhaps just

1 as importantly to ratepayers, as new generation is built, the existing, supply is increased in  
2 future years and capacity prices experience downward pressure.

3  
4 **Q19. Has the RPM construct incented new generation in Ohio?**

5 **A19.** Yes, Ohio has three recent examples of the RPM construct incenting new generation. The Ohio  
6 Power Siting Board (“OPSB”) recently approved three (3) different generating units that will  
7 use natural gas as their fuel source. These facilities, which are not owned by utility affiliates of  
8 the Companies, would not have applied for OPSB approval or would not come online if the  
9 proper investment signals were not being sent by PJM’s market mechanisms. The Oregon,  
10 Ohio facility (Case No. 12-2959-EL-BGN) with a nameplate capacity of 799 MW is expected  
11 to be in operation by June 2017; Carroll County facility (Case No. 13-1752-EL-BGN) with a  
12 nameplate capacity of 742 MW is expected to be in operation by May 1, 2017; and the NTE  
13 Energy facility (Case No. 14-534-EL-BGN) with a nameplate capacity of 510-525 MW is  
14 expected to be in operation by the second quarter of 2018. These facilities demonstrate that the  
15 PJM capacity market incents new build generation in Ohio. Best of all, Ohio ratepayers are not  
16 guaranteeing returns for these projects if they prove uneconomic compared to alternative  
17 generation.

18  
19 The Companies make a great deal of noise about the number of jobs that will allegedly be  
20 saved by their proposed ESP. However, the jobs (both during construction and permanent) and  
21 the local impact on the economies where these new plants are located should not be ignored.  
22 Likewise, the long-run economic impact of these plants that are just beginning their service  
23 should not be ignored.

1 **Q20. Will RPM protect the Companies ratepayers from another polar vortex?**

2 **A20.** Yes. RPM is continuously being upgraded and altered to achieve reliability outcomes. PJM is  
3 already taking action to address reliability concerns discovered in the last polar vortex and has  
4 filed with FERC on December 12, 2014, for a capacity product that cannot (1) claim outside  
5 management control excuses for lack of fuel or breakdown of equipment, (2) penalizes at up to  
6 1.5 x annual capacity revenues for non-availability on peak days, and (3) requires redundant or  
7 backup supply of fuel. *See* FERC Docket EL15-29-000. The costs associated with these  
8 higher reliability standards are allowed to be captured in generator offers so that RPM clears  
9 the units that are the most efficient at meeting the new and existing reliability standards.

10  
11 **Q21. Can you provide examples of PJM adjusting its market rules to address reliability**  
12 **concerns?**

13 **A21.** In instances where RPM is experiencing systemic low- or high-price problems or new types of  
14 reliability concerns arise, PJM alters the model to correct the signals and address new reliability  
15 concerns. For instance, when Demand Resources starting becoming a major player in the  
16 capacity markets, PJM changed the rules to allow them to offer in at non-zero prices because  
17 the mandatory zero-price offers were suppressing clearing prices. On the reliability side, PJM  
18 recently altered the RPM to put a cap on how much capacity can be imported from outside PJM  
19 to adjust to increased capacity import offers which were beginning to threaten transmission  
20 capability. Now imports have to respect transmission import limits or the market causes the  
21 five external areas to experience price separation. This price separation gives a lower price  
22 signal to external generation capacity and higher price signal to internal capacity so that the  
23 market ensures respect of transmission import limits. Note that a transmission build by an  
24 entity to increase limits can be used by external resources to sell additional amounts of their



1 capacity into PJM. The inclusion of transmission upgrade costs for generators helps properly  
2 price the all-in, real cost of real external capacity. Approving Rider RRS would interfere with  
3 these PJM mechanisms to adequately provide for reliable and reasonably priced generation  
4 service to customers.

5  
6 **Q22. Under Rider RRS, assuming PJM does not react to change the MOPR, would Ohioans**  
7 **pay an undue share for PJM capacity, energy, and ancillary services provided to all**  
8 **customers?**

9 **A22.** Yes. PJM's wholesale capacity market is the place where PJM executes its responsibility for  
10 ensuring adequate capacity exists to serve all customers in PJM, including all of the  
11 Companies' customers. The wholesale market mechanisms set the prices for those capacity  
12 assets to ensure reliability in PJM as well as the price for energy and ancillary services. The  
13 Companies' customers will pay more than their fair share any time the rider is a charge, which  
14 the Companies project will be the case for the entire early term of the proposed ESP. See  
15 Direct Testimony of Strah at 15 (Figure 2). Customers will also pay these concentrated  
16 charges in a vacuum outside of the ordinary PJM cost allocation processes.

17  
18 **Q23. Can you give an example of how the Companies' ratepayers will pay more?**

19 **A23.** Normally, the cost of a capacity resource is spread out over the entire RTO while respecting  
20 deliverability limits between local deliverability areas. For instance, for 2014/15 delivery year,  
21 generation in the ATSI (FE Ohio) zone was charged to all customers across the entire PJM  
22 footprint. The Rider RRS ensures that a portion of this generation is paid solely by the  
23 Companies' customers. Besides being an additional charge in and of itself, the rider has a  
24 smaller number of customers paying it, and therefore, has a concentrated effect on Rider

1 ratepayers. Hypothetically in other words, if the Rider was charged to all of PJM because it is  
2 used in meeting PJM-wide resource adequacy, the rate would be far less than proposed because  
3 these costs would be spread across all PJM customers. RPM allows for this proper cost-  
4 causation/beneficiary-pays cost allocation, but the Rider RRS does not. This improperly  
5 aligned cost allocation is unjust and unreasonable. The continued operation of the plants may  
6 or may not have some effect on reliability for all of PJM. However, this hypothetical  
7 reliability will be provided to all of PJM courtesy of the Companies' ratepayers for every single  
8 year that the rider is non-zero. In the end, this Rider creates the potential for ensuring lower  
9 costs to customers who stay out of the Companies' Ohio service territories.

10  
11 **Q24. Do you believe Rider RRS will undermine PJM's wholesale markets?**

12 **A24.** Yes. Approval of RRS will afford a single generation owner in the PJM wholesale markets a  
13 subsidy that other generation owners in PJM will not possess. The subsidy will cause  
14 inefficient operation and guarantee that the "wrong" generation (Rider Generation) will clear  
15 when said generation has out-of-market actual costs. It also introduces many operating  
16 inefficiencies that are forced into the market.

17  
18 **Q25. How would Rider RRS undermine the PJM capacity market?**

19 **A25.** Logically, the Companies have no incentive to offer in their capacity into the PJM wholesale  
20 markets at prices that reflect market risk because they have no market risk and have sunk and  
21 long-run costs. Most probably, they will offer into the capacity market at \$0 as price takers.  
22 Bidding at below-market will provide a continued suppression of capacity market prices for  
23 other generators who do not have such a guarantee and keep prices in the capacity market at  
24 artificially low prices that will disincentivize the building of new generation. In other words,

1 Rider RRS allows the Companies and FES a unique opportunity spread over many years to  
2 drive out competing existing and new-build generation. This undermines RPM and its design  
3 to incent building of new generation in RPM as well as maintaining existing economic  
4 generation. This maintenance often requires new capital expenditures to meet new regulations  
5 or new reliability criteria. Simply put, approval of Rider RRS could undermine the entire  
6 market construct put into place by PJM for its entire footprint. The intervention of the PJM  
7 Market Monitor, an extraordinary event in and of itself, and the Market Monitor's position that  
8 subsidies should not be permitted to interfere with the competitiveness of PJM markets and  
9 PJM's competition-based market design, demonstrates the obvious and significant risks evident  
10 in approval of Rider RRS.

11  
12 **Q26. Do you believe the proposed scheme by the Companies will have short-term capacity**  
13 **market effects?**

14 **A26.** Yes. In the short-term, the effect is suppression of RPM capacity prices if the Companies'  
15 estimates of the Rider cost projections being greater than non-zero are correct. These short-  
16 term effects impact the markets more generally by giving more economic resources the signal  
17 that they should consider avoiding capital improvements. If new reliability needs, such as  
18 winterization efforts or dual-fuel capability are needed to be incented by PJM capacity  
19 construct reliability criteria, these undermined units through price suppression will have less  
20 money to make improvements. Existing generation often needs to make capital improvements  
21 to meet new or maintain existing capacity construct reliability criteria.

22  
23 **Q27. Would the suppression of short-term capacity market costs be good for Ohio customers**  
24 **and lead to overall low wholesale electricity cost, at least in the short term?**



1 **A27.** No. Even though the capacity market costs would be lower through suppression, the total  
2 electricity costs would probably be higher. The wholesale electricity market total costs are  
3 predominantly made up of energy market costs and capacity market costs. The Companies'  
4 Rider RRS will force other units out of service with potentially better heat-rates than the Rider  
5 RRS-subsidized generation because the Rider RRS-subsidized generation will clear the  
6 capacity market rather than the other generator. For example, a new Siemens 7FA combined-  
7 cycle generator has a heat rate of about 6,791 BTU/kWh<sup>1</sup> and the Sammis plant has a heat rate  
8 of 10,572 BTU/kWh.<sup>2</sup> The lower the heat rate, the cheaper the energy is from the unit. Also,  
9 relatively cheaper fuel, like natural gas currently compared to coal, results in lower energy  
10 production costs. Therefore, although capacity costs in the short term might go down, the cost  
11 of energy would go up. Since the energy market is 71.7% of all wholesale electric market costs  
12 and capacity is only 13.2%,<sup>3</sup> the energy market price effects are actually of greater consequence  
13 in the short term than capacity market price effects.

14  
15 **Q28.** Do you believe the proposed scheme by the Companies will have long-term capacity  
16 market effects?

17 **A28.** In the long term, when one market participant has a distinct and artificial advantage, it will  
18 naturally drive out other market participants who do not also have the same artificial  
19 advantages of a select group (the Companies' ratepayers) making them whole. This, in turn,  
20 leads to new generation getting built only through subsidized plants that enjoy similar subsidies  
21 to allow them to compete. Similarly, existing plants will only be able to stay in business if they

---

<sup>1</sup> The turbine most often installed on new Combined Cycle plants is the GE 7FA. In the "Cost of New Entry Estimates for Combustion Turbine and Combined Cycle Plants in PJM With June 1, 2018 Online Date" report by The Brattle group and Sargent & Lundy dated May 15, 2014, the heat rate is given as 6,791 BTU/kWh on page 16 for the Rest of RTO.

<sup>2</sup> <http://www.snl.com/irweblinkx/PowerPlantProfile.aspx?iid=4056944&PlantID=7074>.

<sup>3</sup> These are percentages from "Total Price of Wholesale Power" as identified on page 12 in the 2013 State of the Market Report for PJM by Monitoring Analytics, LLC Independent Market Monitor for PJM, dated March 3, 2014.

1 find ways to receive similar subsidies. The ultimate end of the spiral effect is average-cost  
2 regulated pricing (through one mechanism or another) for generation units that displaces the  
3 competitive marketplace.

4  
5 A major long-term effect of subsidies or guarantees is that they remove the pressure for  
6 subsidized generators to perform efficiently, such that there is a loss of efficiency in both  
7 making needed future capital improvements and in the operation of the generators.

8  
9 Capital improvement inefficiencies relate to imprudent investment and uncontrolled long-term  
10 costs. The capacity market is meant for recovery of these costs. In the long-term, if a higher  
11 percentage of generators become subsidized (basically regulated), there will be a huge amount  
12 of capacity costs.

13  
14 The second type of inefficiency is operational. Operational inefficiencies relate to poor  
15 management of maintenance and running of a unit. The Rider RRS subsidies are guarantees  
16 and do not put pressure on the Rider RRS-subsidized generating units to make wise cost or  
17 operational decisions. They will recover their costs through the rider even if managed poorly.  
18 For instance, prior to the PJM markets, generation was run with much larger forced outage  
19 rates (measured as "EFORD"). Average EFORD across the PJM system went from 9.80% in  
20 2000 to the current level of 7.02% (which includes the 2014 polar vortex extreme event) after  
21 PJM markets were put in place. Note that EFORD was 40% higher in 2000 than today.

22  
23 Let's not forget that capacity costs are determined by subtracting annual energy revenues from  
24 annualized total cost of a generator. Therefore, capacity market offers, which are placed in



1 RPM at capacity market costs for a competitive generator, are a function of capacity costs net  
2 of energy revenues. If the subsidized generators are lax on operating efficiency, they will have  
3 inflated capacity costs, leading to exorbitant Rider RRS costs. If the Companies and FES are  
4 lax in managing costs for making needed wise improvements, they will have inflated capacity  
5 costs leading to exorbitant Rider RRS costs. If the Companies and FES are lax in managing  
6 costs for maintenance, they will have inflated capacity costs leading to exorbitant Rider RRS  
7 costs. The Companies have little incentive to be carefully prudent with the ratepayers' money  
8 or operation of their subsidized generation plants. Inefficiencies from improper incentives  
9 generally worsen over time.

10  
11 **Q29. Could these short-term and long-term effects lead to the closing of other generation?**

12 **A29.** Yes. As with any market, when one competitor has a guarantee of all costs and others must add  
13 those costs into their pricing, eventually prices will reach a point where cost for the competitors  
14 are no longer recovered and they go out of business. Rider RRS has the potential to create the  
15 very thing that is feared – a lack of sufficient generation.

16  
17 **Q30. What are Porter's Five Forces?**

18 **A30.** "Porter's Five Forces" is a good business tool to help understand the effects of Rider RRS on  
19 competitive markets because it identifies where power lies in a business situation based on (1)  
20 threat of new entrants, (2) threat of substitute products or services (3) bargaining power of  
21 customers, (4) bargaining power of suppliers, and (5) intensity of competitive rivalry. Porter's  
22 Five Forces is a well-understood and well-documented way of evaluating business situations,  
23 particularly how different market forces affect each other.



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**12/22/2014 5:19:01 PM**

**in**

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

Summary: Testimony Direct Testimony of David Scarpignato PART I electronically filed by M  
HOWARD PETRICOFF on behalf of Retail Energy Supply Association