

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the 2018 Long-Term)	
Forecast Report of Ohio Power Company)	Case No. 18-501-EL-FOR
and Related Matters.)	

In the Matter of the Application of Ohio)	
Power Company for Approval to Enter into)	
Renewable Energy Purchase Agreements)	Case No. 18-1392-EL-RDR
for Inclusion in the Renewable Generation)	
Rider.)	

In the Matter of the Application of Ohio)	
Power Company for Approval to Amend)	Case No. 18-1393-EL-ATA
its Tariffs.)	

**DIRECT TESTIMONY OF JOSEPH HAUGEN ON BEHALF OF INTERSTATE GAS
SUPPLY, INC. AND IGS SOLAR, LLC**

1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

2 **Q. Please introduce yourself.**

3 A. My name is Joseph Haugen and I am employed by Interstate Gas Supply, Inc.
4 d/b/a IGS Energy ("IGS"). I am the Power Supply Director and have been in this
5 role since May of 2017. I have responsibilities related to IGS's power supply and
6 risk along with wholesale power market operations. I am also responsible for
7 representing IGS in the PJM Interconnection, Inc. stakeholder process. My
8 business address is 6100 Emerald Parkway, Dublin, Ohio 43016. I have worked
9 at IGS since February 2013 when I was hired as a Senior Supply Analyst and aided
10 in developing and implementing wholesale risk management hedging and trading
11 strategies. In January 2015, I was promoted to Power Supply Manager where I
12 managed a team of analysts responsible for implementing risk management and
13 trading strategies.

14 **Q. Please describe your educational background and work history.**

15 A. I graduated from the Ohio State University in 2005 with a B.A. I obtained a Master
16 of Business Administration from Otterbein University in 2009. Prior to working at
17 IGS, I was an energy scheduler for Buckeye Power from 2007 through 2013. I
18 scheduled daily power usage for the 25 cooperatives in Ohio and coordinated
19 generation resources including wind, natural gas, and coal plants in the wholesale

1 markets. I was also responsible for operating the demand response program.
2 Prior to that I was a Laboratory Manager for CTL Engineering from 2005 to 2007.

3 **Q. What is the nature of IGS's business?**

4 A. IGS Energy has over 25 years' experience serving customers in Ohio's competitive
5 markets. IGS Energy serves over 1 million customers nationwide and sells natural
6 gas and electricity to customers in 11 states and in over 40 utility service territories.
7 In Ohio, IGS currently serves electric customers in the Duke, AEP, FirstEnergy
8 Ohio, and the Dayton Power & Light service territories. The IGS family of
9 companies (which include IGS Generation, IGS Home Services and IGS CNG
10 Services) also provides customer focused energy solutions that complement IGS
11 Energy's core commodity business including demand response, distributed
12 generation, CNG refueling, back-up generation and utility line protection.

13 **Q. Have you testified previously?**

14 A. Yes, I have testified or provided testimony on behalf of Interstate Gas Supply, Inc.
15 before the Public Utilities Commission of Ohio.

16 **Q. Why are you interested in this proceeding?**

17 IGS serves customers in the AEP territory and there is a value to our customers
18 for capacity costs to be set through a transparent and competitive market instead

1 of specific resources subsidization. Moreover, IGS sees great potential to develop
2 solar resources with customers through bilateral arrangements dictated by market
3 forces and consumer preferences.

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

5 A. As part of AEP's Integrated Resource Plan (IRP), an analysis is provided which
6 states that customers of AEP Ohio will see a net savings over time if specific solar
7 and wind resources are developed in Ohio and paid for through a non-bypassable
8 rider. They receive this value through the Renewable Energy Purchase Agreement
9 (REPA) in which AEP would receive the associated Energy, Capacity, and
10 Renewable Energy Credits for each project. Pending current filings at the FERC
11 regarding state subsidized resources, specifically *Initial Submission on PJM*
12 *Interconnection, LLC* Docket No. EL18-178-000 (Consolidated), I believe this
13 analysis to be flawed and a determination on this case should either be delayed
14 until a final ruling on PJM capacity market constructs or an analysis provided to
15 determine the impact customers without the reliance on revenue from PJM
16 capacity markets.

17 **Q. Can you explain how the value of the Capacity Credit was determined in this**
18 **case?**

19 A. Yes, to determine the revenue associated to Capacity, the units have a capacity
20 factor applied to their installed capacity value. Due to the intermittent nature of the

resources a value lower than their nameplate is used to determine an appropriate capacity mW. This mW is then valued against either the known PJM capacity auction price or a projected price and valued for each year. “Each mW of PJM capacity credit obtained through a REPA represents capacity that could be offered into the PJM capacity auction.”¹

Q. Can you explain why this analysis is flawed?

A. PJM has filed proposed capacity market rule changes which would only allow state subsidized resources to either submit a bid at the Minimum Offer Price Rule (MOPR) or the capacity would fall under the Resource Carve-Out option. Under this new rule, the resources at issue in this case would be deemed the recipient of an actionable state subsidy. Given the large amount of generation reserves currently in the PJM area, it is unlikely the resource would clear at the price associated with the MOPR. For example, in the latest PJM Base Residual Auction, “the reserve margin for the entire RTO for the 2021/2022 Delivery Year as procured in the BRA is 21.5%, or 5.7% higher than the target reserve margin of 15.8%. This reserve margin was achieved at clearing prices that are between approximately 44% to 82% of Net CONE, depending upon the Locational Deliverability Area (LDA). The auction also attracted a diverse set of resources, including a significant increase in Demand Response and Energy Efficiency resources, additional wind and solar resources, and one new combined cycle gas

¹ Direct Testimony of John F Torpey on behalf of Ohio Power Company, p. 8-9 (Sep. 19, 2018).

1 resource.”² This would put the REPA Capacity under the Resource Carve-Out
2 mechanism and the resource would not clear in the PJM Capacity auction.

3 Furthermore, PJM has also proposed an Extended Resource Carve-Out.³ Under
4 this proposal, the REPA generation resources would not only be carved out of the
5 PJM capacity auctions, but customers who receive service in the AEP territory
6 would still be required to buy the full amount of capacity that clears in the PJM
7 auction and their respective load would not be carved out. Therefore, customers
8 in the territory would be paying for generation that meets their reliability
9 requirements from PJM and paying the capacity for REPA resources which are not
10 participating in the capacity auctions.

11 Under either of these options, it is unlikely that Capacity associated with the REPA
12 would have any value in the PJM capacity auction and the analysis provided in
13 support of the IRP is therefore fundamentally flawed. Furthermore, retail customers
14 may end up paying for capacity twice dependent on which proposal FERC orders.

15 **Q. Are there any further risks?**

16 Yes. The benefits from the analysis are also dependent on Energy prices
17 increasing due to an unknown market construct that will price in a cost for CO₂

² 2021/2022 RPM Base Auction Results, PJM, 5.23.2018, Page 1.

³ Initial Submission on PJM Interconnection, LLC. FERC Docket No. EL18-178-000 (Consolidated) filed October 2, 2018, Page 10.

emissions.⁴ Since any rules or timing with regards to CO₂ regulations are unknown and speculative, these assumptions should be disregarded from the analysis.

Q. Do you believe the Commission should approve AEP's Integrated Resource Plan?

A. No. Market rules are still being determined regarding how state subsidized resources can be compensated in the PJM Capacity market and it is unknown if there will ever be a CO₂ emission cost that will adversely affect the price of electricity generated by fossil fuels. Since the Capacity revenue from PJM and the increase in Energy prices from CO₂ costs make up a large portion of the benefit for consumers, any analysis that is reliant on these unknown market constructs should be disregarded. Furthermore, the resources should be forced to either stand alone in the wholesale markets without subsidies or not rely on revenue from the PJM markets to provide a benefit to customers. Indeed, the concept of an integrated resource plan is antithetical to Ohio policy, which supports market-based solutions rather than a traditional integrated utility approach. The former approach places the risk of generation-related investment on the backs of shareholders, whereas the latter places that risk on customers.

Q. Does this conclude your testimony?

A. Yes it does. But I reserve the right to supplement my testimony.

⁴ Direct Testimony of Karl Bletzacker on Behalf of Ohio Power Company, p. 8 (Sep. 19, 2018).

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *Direct Testimony of Joseph Haugen on Behalf of Interstate Gas Supply, Inc.* was served upon the following parties of record this 2nd day of January 2019, *via* electronic transmission, hand-delivery or first class mail, U.S. postage prepaid.

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/s/Joseph Olikier

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Summary: Testimony Testimony of Joseph Haugen on Behalf of Interstate Gas Supply, Inc. and IGS Solar, LLC electronically filed by Mr. Michael A Nugent on behalf of Interstate Gas Supply, Inc. and IGS Solar, LLC