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**VERIFIED DIRECT TESTIMONY OF ANDREW S. CAMPBELL**

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1 **Q1. Please state your name, business address and title.**

2 A1. My name is Andrew S. Campbell. I am the Director of Regulatory Support  
3 & Planning for Northern Indiana Public Service Company LLC  
4 ("NIPSCO"). My business address is 1500 165th Street, Hammond, Indiana  
5 46320.

6 **Q2. Please describe your educational and employment background.**

7 A2. I graduated from Purdue University Calumet with a Bachelor of Science in  
8 Mechanical Engineering and graduate studies in Interdisciplinary  
9 Engineering. Additionally, I graduated with a Master of Business  
10 Administration from the University of Notre Dame. I began my  
11 employment with NIPSCO in June of 2009 as an Operations Analysis  
12 Engineer. In September of 2011, I was promoted to the Manager of  
13 Operations & Market Support and in May of 2013, assumed the role of  
14 Manager of Planning & Regulatory Support. In September of 2017, I was  
15 promoted to my current role as Director of Regulatory Support & Planning.  
16 Prior to joining NIPSCO, I worked as an engineer for an industrial

1 manufacturing company that specialized in engine attachments for marine  
2 and small power generation applications. I am also a veteran of the Army  
3 National Guard.

4 **Q3. What are your responsibilities as Director of Regulatory Support &**  
5 **Planning?**

6 A3. As the Director of Regulatory Support & Planning, I am responsible for  
7 leading the regulatory support and financial planning functions for the  
8 Energy Supply & Optimization ("ES&O") department within NIPSCO,  
9 whereby my team supports NIPSCO's operations within the electric and  
10 natural gas markets. More specifically, my team is responsible for leading  
11 all electric and natural gas rate case related support activities for the ES&O  
12 department, supporting the forecast and reconciliation of NIPSCO's Fuel  
13 Adjustment Clause ("FAC"), Regional Transmission Organization ("RTO")  
14 Adjustment, Resource Adequacy ("RA") Adjustment, Green Power Rider  
15 ("GPR"), Gas Cost Adjustment ("GCA"), leading the development of  
16 NIPSCO's natural gas and electric hedging programs, and supporting  
17 NIPSCO's financial and business planning cadence. Most recently, I have  
18 been leading the commercial execution of NIPSCO's generation strategy  
19 outlined within its 2018 Integrated Resource Plan ("2018 IRP").

1 **Q4. Have you previously testified before this or any other regulatory**  
2 **commission?**

3 A4. Yes. Most recently, I submitted testimony in NIPSCO's electric rate case  
4 currently pending in Cause No. 45159. I previously submitted testimony in  
5 NIPSCO's gas rate case in Cause No. 44988, NIPSCO's request for approval  
6 of its 2018 Hedging Plan (Cause No. 38706-FAC-118), NIPSCO's request for  
7 approval of an amendment to NIPSCO's 2017-2018 financing authority  
8 (Cause No. 45020), and in the following tracker filings: GCA tracker filings  
9 (Cause No. 43629-GCA-XX), FAC tracker filings (Cause No. 38706-FAC-  
10 XX), RA Adjustment tracker filings (Cause No. 44155-RA-XX), and RTO  
11 Adjustment tracker filings (Cause No. 44156-RTO-XX).

12 **Q5. What is the purpose of your direct testimony in this proceeding?**

13 A5. The purpose of my direct testimony is to support NIPSCO's request for  
14 Indiana Utility Regulatory Commission ("Commission") approval of the  
15 Wind Energy Purchase Agreement dated January 18, 2019, between  
16 NIPSCO and Roaming Bison Wind, LLC ("Roaming Bison"), which is an  
17 affiliate of Apex Clean Energy Holding, LLC ("Roaming Bison Wind  
18 Energy PPA"). The Roaming Bison Project is being developed in  
19 Montgomery County, Indiana. The Roaming Bison Project has an installed

1 capacity of approximately 300 megawatts ("MW") (nameplate capacity).  
2 The Roaming Bison Wind Energy PPA provides NIPSCO with 100% of the  
3 electrical output of the Roaming Bison Project, any capacity available  
4 during system peak or Unforced Capacity ("UCAP"), and any  
5 environmental attributes associated with the project for a term of 20 years  
6 beginning at the Commercial Operation Date. I describe the process  
7 NIPSCO followed that led to the execution of the Roaming Bison Wind  
8 Energy PPA and discuss how NIPSCO will integrate the Roaming Bison  
9 Wind Energy PPA into NIPSCO's and the Midcontinent Independent  
10 System Operator, Inc.'s ("MISO") operations. I also discuss the viability of  
11 wind energy resources generally, and the terms of the Roaming Bison Wind  
12 Energy PPA outlining NIPSCO's rights to the wind energy project's  
13 production, capacity, and environmental attributes, and the benefits  
14 associated with the environmental attributes in the form of Renewable  
15 Energy Credits ("RECs"). I also discuss NIPSCO's proposal for recovering  
16 the costs associated with the Roaming Bison Wind Energy PPA.

17 **Q6. Are you sponsoring any attachments to your direct testimony?**

18 A6. Yes. I am sponsoring the following attachments, all of which were prepared  
19 by me or under my direction and supervision.

Attachment 1-A	Verified Petition
Confidential Attachment 1-B	Roaming Bison Wind Energy PPA

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**Q7. Is the Roaming Bison Wind Energy PPA a clean energy project for purposes of Ind. Code § 8-1-8.8-2 and therefore eligible for financial incentives under Ind. Code § 8-1-8.8-11?**

A7. Yes. The Roaming Bison Wind Energy PPA is for products generated from wind energy project – a clean energy resource under Ind. Code § 8-1-37-4, a renewable energy resource under Ind. Code § 8-1-8.8-10, and a clean energy project under Ind. Code § 8-1-8.8-2(2). NIPSCO is a public utility engaged in the production, transmission, delivery or furnishing of heat, light or power – an energy utility under Ind. Code § 8-1-2.5-2 and an eligible business under Ind. Code § 8-1-8.8-6.

**Q8. Please describe the process by which NIPSCO came to execute the Roaming Bison Wind Energy PPA.**

A8. In the first quarter of 2018, NIPSCO retained CRA International d/b/a Charles River Associates, Inc. (“CRA”) to assist in the design, administration and bid evaluation of an all-source request for proposal (“All-Source RFP”) solicitation process. The All-Source RFP had a dual purpose: first to solicit binding bids to cover an anticipated capacity

1       shortfall starting in 2023, and second to secure market-based information  
2       on the cost and performance of alternative resource options to inform and  
3       improve NIPSCO's 2018 IRP. Through the process, NIPSCO received bids  
4       supported by renewable facilities, fossil resources, energy storage, and  
5       demand response options. Bids for both standalone assets and integrated  
6       facilities comprised of different resource types or supported by energy  
7       storage were submitted. Bidders offered power purchase agreements  
8       ("PPAs") for the output of existing and proposed assets and assets for sale.  
9       NIPSCO Witness Augustine discusses the preferred portfolio from  
10       NIPSCO's Integrated Resource Plan submitted October 31, 2018 (the "2018  
11       IRP") and how the assumptions associated with the new wind resource  
12       options modeled in the 2018 IRP compare with the cost of the Roaming  
13       Bison Wind Energy PPA. NIPSCO Witness Lee explains the analysis  
14       NIPSCO used to evaluate its various options for wind energy and why the  
15       Roaming Bison Wind Energy PPA is an economic choice for helping meet  
16       NIPSCO's retail electric load.

17   **Q9. What role did you have in the All-Source RFP process?**

18   A9. My involvement in the All-Source RFP process was to ensure the process  
19       conformed to NIPSCO's intent to competitively bid and secure additional

1 electric energy and capacity in the amount needed to serve NIPSCO's retail  
2 customers in the future, and to assure that CRA conducted the process in a  
3 fair and transparent manner.

4 **Q10. Is wind energy a viable energy resource?**

5 A10. Yes. Wind is a renewable, indigenous, and clean energy source. Wind  
6 energy projects do not use fossil or nuclear fuel in operation, which means  
7 no mining or drilling for fuel, no radioactive or hazardous wastes, no use  
8 of water for steam or cooling, and no emissions of greenhouse gases or  
9 other pollutants. The absence of fossil or nuclear fuel also means the price  
10 of wind power is not impacted by the volatility of commodities.

11 Due to meteorological and resource diversity, the location of wind projects  
12 influences the capacity accreditation and available wind energy. As  
13 mentioned by NIPSCO Witness Lee, all three projects being proposed by  
14 NIPSCO in this first tranche are located in Indiana, more specifically the  
15 part of Indiana with advantageous meteorological and diversity conditions.

16 For these reasons, and with advances in wind technology in areas such as  
17 wind turbine availability, capacity factor, design and size, and wind

1 mapping,<sup>1</sup> wind energy has become a viable source of renewable energy  
2 resources on a per megawatt-hour (“MWh”) basis.

3 **Q11. Once the preferred portfolio within the 2018 IRP was chosen and the All-**  
4 **Source RFP results were reviewed, how did NIPSCO proceed?**

5 A11. NIPSCO, in conjunction with CRA, negotiated with developers of the most  
6 viable wind energy projects. During the course of negotiations, the number  
7 of wind projects was reduced to four projects. After completion of  
8 negotiations over the terms, conditions and price, NIPSCO executed three  
9 wind agreements for a total purchase of approximately 800 MW of  
10 nameplate wind power. The size of each project may change slightly as  
11 engineering and technical specifications are finalized.

12 **Q12. Please briefly describe Roaming Bison.**

13 A12. Roaming Bison is a Delaware limited liability company with its principal  
14 place of business in Charlottesville, Virginia. Roaming Bison Wind, LLC is  
15 an affiliate of Apex Clean Energy Holdings, LLC (“Apex”). Founded in  
16 2009, Apex builds, owns portions of, and operates utility-scale wind and

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<sup>1</sup> Mapping refers to the process of assessing impacts of existing wind resources, restrictions on land use, and other sensitivities that may affect wind energy.



1 solar facilities with projects located throughout the country, including the  
2 PJM Interconnection LLC, Southwest Power Pool, MISO, Western  
3 Electricity Coordinating Council, Southeastern Electric Reliability Council,  
4 ISO New England, New York ISO, and Electric Reliability Council of Texas.

5 **Q13. What experience does Apex have in the wind generation business?**

6 A13. Apex provides turnkey clean energy solutions to utilities including  
7 development-transfer, build-transfer, PPAs, construction management,  
8 RFP management, asset management and construction oversight. Since its  
9 inception, APEX has been invested in opportunities sited in places that  
10 blend the best wind resource with high potential for offtake.<sup>2</sup>

11 **Q14. Does Roaming Bison have authority from the Commission to construct**  
12 **this project, or has the Commission declined to exercise jurisdiction over**  
13 **this project?**

14 A14. No. The Roaming Bison Wind Energy PPA requires that the counterparty  
15 file for such authority within 45 days of signing the agreement.

16 **Q15. What due diligence did NIPSCO conduct when evaluating the**  
17 **creditworthiness of potential counterparties?**

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<sup>2</sup> [www.apexcleanenergy.com/utilities/](http://www.apexcleanenergy.com/utilities/)

1 A15. As part of NIPSCO's due diligence when evaluating the creditworthiness  
2 of potential counterparties, NIPSCO gathered and reviewed credit  
3 information during the pre-qualification process in the All-Source RFP.  
4 Counterparties that were investment grade based on their unsecured senior  
5 debt rating met the credit requirements. If a bidder did not meet the debt  
6 rating requirement or did not have a rating, they were required to post  
7 collateral upon executing a definitive agreement. Apex satisfies this  
8 collateral posting requirement. Also, Apex's financial ability to complete  
9 construction of the wind project, along with the ability to continue  
10 successful operation of the wind project during the term of the Roaming  
11 Bison Wind Energy PPA is key to NIPSCO. NIPSCO has taken this into  
12 consideration by including performance security provisions in the Roaming  
13 Bison Wind Energy PPA. The Roaming Bison Wind Energy PPA requires  
14 Roaming Bison to provide to NIPSCO such performance security, no later  
15 than 30 days after NIPSCO receives state regulatory approval of the  
16 Roaming Bison Wind Energy PPA, in the form of either: (1) a guaranty from  
17 a qualified guarantor; (2) a letter of credit from a qualified financial  
18 institution; or (3) cash (collectively "Security Fund"). In the event Roaming  
19 Bison is in default of any of its obligations under the PPA or NIPSCO is

1 otherwise entitled to indemnification or damages under the PPA, NIPSCO  
2 has a right to access the Security Fund directly to reimburse NIPSCO for  
3 any damages or costs incurred as a result of Roaming Bison's failure to  
4 comply with its obligations under the Roaming Bison Wind Energy PPA..

5 **Q16. Please describe the Roaming Bison Project.**

6 A16. Roaming Bison expects to construct, own, and operate a 300 MW wind  
7 energy project in Montgomery County, Indiana that will interconnect to  
8 Duke Energy Indiana's Nucor-Cayuga 345 kV transmission line via a line  
9 tap. The Roaming Bison Project will be within the footprint of MISO.  
10 During the Definitive Planning Phase (DPP) of the MISO Generation  
11 Interconnection process, MISO performed Deliverability Analysis and  
12 Facilities Studies to determine whether transmission upgrades would be  
13 necessary. MISO completed these analyses in 2017. In sum, MISO  
14 determined that the energy generated by Roaming Bison would be  
15 deliverable to the point of interconnect.

16 **Q17. How were congestion risks assessed?**

17 A17. Congestion risks were assessed using MISO's future year ProMod models,  
18 which are capable of simulating hourly market operations for a given study

**Petitioner's Confidential Exhibit No. 1**  
**Northern Indiana Public Service Company LLC**  
**Page 12**

1 year. The output was then used to determine the expected curtailments,  
2 total revenue, congestion, and loss charges for each site under  
3 consideration. Sites with greater congestion risk have been appropriately  
4 discounted in NIPSCO's site analysis.

5 **Q18. How will reliability be maintained when the wind isn't blowing?**

6 A18. NIPSCO will continue to dispatch its steam and gas fleet and other available  
7 wind generation, as well as purchase power from MISO, to meet customer  
8 demand and reliability needs throughout the term of the Roaming Bison  
9 Wind Energy PPA. This ensures that when the wind is not blowing  
10 customers will continue to receive reliable service every hour of every day.

11 **Q19. How will NIPSCO protect customers against curtailed (non-**  
12 **compensable) energy charges?**

13 A19. NIPSCO and Roaming Bison have agreed to (1) [REDACTED]  
14 [REDACTED], (2) work together through  
15 an on-going operating committee process to establish Automatic  
16 Generation Control set points that attempt to minimize any charges, and (3)  
17 collaborate on any disputes prior to any formal legal process.

18 **Q20. Please describe the Roaming Bison Wind Energy PPA.**

**Petitioner's Confidential Exhibit No. 1**  
**Northern Indiana Public Service Company LLC**  
**Page 13**

1 A20. The Roaming Bison Wind Energy PPA is attached hereto as Confidential  
2 Attachment 1-B. Under the Roaming Bison Wind Energy PPA, Roaming  
3 Bison commits to provide NIPSCO energy generated from approximately  
4 300 MW of installed wind turbine capacity at a [REDACTED]  
5 over a term of 20 years beginning at the Commercial Operation Date in  
6 2020. The price includes the energy and all environment attributes  
7 (commonly referred to as "Renewable Energy Credits" or "RECs")  
8 associated with the energy generated by the Roaming Bison Project and  
9 metered at the point of delivery. Roaming Bison will receive and retain  
10 existing and future tax credits or tax benefits as the owner and operator of  
11 the wind energy project. [REDACTED]

12 [REDACTED]  
13 [REDACTED]. The Roaming Bison Wind Energy PPA provides that  
14 if cost recovery is not approved by the Commission, then either NIPSCO or  
15 Roaming Bison may terminate the Roaming Bison Wind Energy PPA.

16 **Q21. Please describe the environmental attributes that NIPSCO will obtain in**  
17 **conjunction with the Roaming Bison Project.**

18 A21. As used in the Roaming Bison Wind Energy PPA, the term "Environmental  
19 Attribute" is intended to capture any changes to governmental rules,

1 regulations or law, or changes to registration systems put in place over the  
2 term of the Roaming Bison Wind Energy PPA. I refer to the Environmental  
3 Attributes acquired pursuant to the Roaming Bison Wind Energy PPA as  
4 RECs, which are tradable credits corresponding to each megawatt-hour of  
5 electricity generated by a renewable-fueled or environmentally friendly  
6 source. NIPSCO anticipates the RECs it receives pursuant to the Roaming  
7 Bison Wind Energy PPA will be tracked through the Midwest Renewable  
8 Energy Tracking System ("M-RETS"). M-RETS is a database that tracks  
9 relevant information about renewable energy produced and delivered in  
10 the Upper Midwest, including the MISO footprint, to verify for subscribers  
11 in states with mandatory or voluntary renewable portfolio standards or for  
12 utility and other participants the RECs made available to them through  
13 REC purchases and sales. M-RETS tracks the ownership of RECs and  
14 generation attributes that result from the generation of renewable  
15 electricity.

16 **Q22. Please describe the expected value of the RECs and how NIPSCO intends**  
17 **to pass that value back to its customers.**

18 A22. The qualitative and quantitative value of the RECs associated with the  
19 energy delivered is discussed by NIPSCO Witness Lee. NIPSCO will

1 monitor and evaluate the marketability for the RECs. Any proceeds from  
2 the sale of the RECs NIPSCO chooses to sell will be passed back to  
3 NIPSCO's customers in NIPSCO's FAC proceedings.

4 **Q23. Why did NIPSCO decide to contract for the 300 MW of electric energy**  
5 **made available through the Roaming Bison Wind Energy PPA in 2020?**

6 A23. NIPSCO Witness Augustine explains NIPSCO's 2018 IRP process and the  
7 demonstrated need for additional electric supplies to maintain adequate  
8 electric reserves beginning in 2023. The decision to contract for the wind  
9 was based upon NIPSCO's and CRA's analysis through the 2018 IRP that  
10 NIPSCO's customers, over the life of the projects, would save  
11 approximately \$500 million due to the declining value of the Production  
12 Tax Credit ("PTC"). The Roaming Bison Wind Energy PPA plays a role in  
13 satisfying NIPSCO's electric planning goals and objectives from the 2018  
14 IRP.

15 **Q24. Please briefly explain the PTC and its declining value.**

16 A24. Federal tax incentives are currently in place for renewable and paired  
17 renewable/storage resources. Resources are eligible for a PTC, which  
18 provides a credit of \$24/MWh for all generation produced by the facility.

1       The tax incentive is currently in the midst of a phase-out. To qualify for the  
2       PTC, projects need to begin construction by a certain date and be put into  
3       service by a certain date. The start of construction deadline can be met as  
4       long as certain equipment purchases and development costs have been  
5       “safe harbored” by federal tax authorities. The safe harbor for beginning of  
6       construction is investment of at least 5% of the total project cost on or before  
7       the specified date. The chart below reflects the phase-out schedule:

Year During Which Equipment is Safe Harbored	Last Year Project Can Be Placed in Service to Qualify for Continuity Safe Harbor	Credit Percentage
2016	2020	100
2017	2021	80
2018	2022	60
2019	2023	40
2020	N/A	

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9       **Q25. How will NIPSCO account for the wind energy provided by the Roaming**  
10       **Bison Wind Energy PPA?**

11       A25. NIPSCO will take delivery of the wind energy from Roaming Bison at a  
12       specified metering point. NIPSCO will be the Market Participant and will  
13       make the energy available in the MISO energy market. NIPSCO will be  
14       paying Roaming Bison the contract price per MWh and counting this wind



1 energy as used in the NIPSCO system. NIPSCO will “settle” the sale price  
2 for the wind energy sold into MISO against the price paid for the wind  
3 energy. NIPSCO offers its generation and bids its load into the MISO  
4 energy and ancillary services markets daily, along with other sales and  
5 purchases, in the end “settling” the costs against revenues. MISO treats  
6 wind energy projects as dispatchable intermittent resources. As such,  
7 Roaming Bison will be subject to real-time Revenue Sufficiency Guarantee  
8 and Uninstructed Deviation charges assessed under the Open Access  
9 Transmission, Energy and Operating Reserve Markets Tariff (“MISO  
10 Tariff”).

11 **Q26. Will NIPSCO be able to designate the Roaming Bison Wind Energy PPA**  
12 **as a network resource under the MISO Tariff?**

13 A26. Yes. The generator interconnection agreement that Roaming Bison will be  
14 receiving from MISO will have network resource interconnection service  
15 (“NRIS”) available for its full injection once any required transmission  
16 system upgrades are complete. Having NRIS will allow NIPSCO to  
17 designate this generation facility as a network resource to receive Network  
18 Integration Transmission Service (“NITS”) without further study.

1 **Q27. Does the Roaming Bison Wind Energy PPA described herein represent**  
2 **prudent, valuable, and reasonably priced renewable energy resources for**  
3 **NIPSCO?**

4 A27. Yes. NIPSCO believes the Roaming Bison Wind Energy PPA described  
5 herein will provide NIPSCO's customers with a more affordable and  
6 cleaner energy resource. This is supported by the analysis performed in  
7 NIPSCO's 2018 IRP.

8 **Q28. How will the costs of the Roaming Bison Wind Energy PPA be recovered?**


9 A28. NIPSCO is proposing to recover the Roaming Bison Wind Energy PPA costs  
10 throughout the full 20-year term of the agreement through a rate  
11 mechanism pursuant to Ind. Code §§ 8-1-2-42(a) and 8-1-8.8.11. For  
12 administrative efficiency and simplicity, NIPSCO proposes the timely cost  
13 recovery be administered through NIPSCO's FAC proceedings (or  
14 successor mechanism). . Furthermore, NIPSCO is seeking approval of  
15 power purchases pursuant to the Roaming Bison Wind Energy PPA as  
16 reasonable throughout the entire term of the agreement and therefore  
17 confirmation that the costs thereof are recoverable through the FAC  
18 proceedings (or successor mechanism) without regard to the Ind. Code § 8-  
19 1-42(d)(1) test or any other FAC benchmarks.

1 Q29. Does this conclude your prefiled direct testimony?

2 A29. Yes.

## VERIFICATION

I, Andrew S. Campbell, Director of Regulatory Support & Planning for Northern Indiana Public Service Company LLC, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



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Andrew S. Campbell

Date: February 1, 2019

**Attachment 1-A**

**[Verified Petition – Not duplicated herein]**

**Confidential Attachment 1-B (Redacted)**