VERIFIED DIRECT TESTIMONY OF ANDREW S. CAMPBELL

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

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

Q2. Please describe your educational and employment background.

A2. I graduated from Purdue University Calumet with a Bachelor of Science in Mechanical Engineering and graduate studies in Interdisciplinary Engineering. Additionally, I graduated with a Master of Business Administration from the University of Notre Dame. I began my employment with NIPSCO in June of 2009 as an Operations Analysis Engineer. In September of 2011, I was promoted to the Manager of Operations & Market Support and in May of 2013, assumed the role of Manager of Planning & Regulatory Support. In September of 2017, I was promoted to my current role as Director of Regulatory Support & Planning. Prior to joining NIPSCO, I worked as an engineer for an industrial
manufacturing company that specialized in engine attachments for marine and small power generation applications. I am also a veteran of the Army National Guard.

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

A3. As the Director of Regulatory Support & Planning, I am responsible for leading the regulatory support and financial planning functions for the Energy Supply & Optimization (“ES&O”) department within NIPSCO, whereby my team supports NIPSCO’s operations within the electric and natural gas markets. More specifically, my team is responsible for leading all electric and natural gas rate case related support activities for the ES&O department, supporting the forecast and reconciliation of NIPSCO’s Fuel Adjustment Clause (“FAC”), Regional Transmission Organization (“RTO”) Adjustment, Resource Adequacy (“RA”) Adjustment, Green Power Rider (“GPR”), Gas Cost Adjustment (“GCA”), leading the development of NIPSCO’s natural gas and electric hedging programs, and supporting NIPSCO’s financial and business planning cadence. Most recently, I have been leading the commercial execution of NIPSCO’s generation strategy outlined within its 2018 Integrated Resource Plan (“2018 IRP”).
Q4. Have you previously testified before this or any other regulatory commission?

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

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

A5. The purpose of my direct testimony is to support NIPSCO’s request for Indiana Utility Regulatory Commission (“Commission”) approval of the Wind Energy Purchase Agreement dated January 18, 2019, between NIPSCO and Roaming Bison Wind, LLC (“Roaming Bison”), which is an affiliate of Apex Clean Energy Holding, LLC (“Roaming Bison Wind Energy PPA”). The Roaming Bison Project is being developed in Montgomery County, Indiana. The Roaming Bison Project has an installed
capacity of approximately 300 megawatts ("MW") (nameplate capacity).

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

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

A6. Yes. I am sponsoring the following attachments, all of which were prepared
by me or under my direction and supervision.
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 § 8-1-8.6.

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
shortfall starting in 2023, and second to secure market-based information
on the cost and performance of alternative resource options to inform and
improve NIPSCO’s 2018 IRP. Through the process, NIPSCO received bids
supported by renewable facilities, fossil resources, energy storage, and
demand response options. Bids for both standalone assets and integrated
facilities comprised of different resource types or supported by energy
storage were submitted. Bidders offered power purchase agreements
(“PPAs”) for the output of existing and proposed assets and assets for sale.

NIPSCO Witness Augustine discusses the preferred portfolio from
NIPSCO’s Integrated Resource Plan submitted October 31, 2018 (the “2018
IRP”) and how the assumptions associated with the new wind resource
options modeled in the 2018 IRP compare with the cost of the Roaming
Bison Wind Energy PPA. NIPSCO Witness Lee explains the analysis
NIPSCO used to evaluate its various options for wind energy and why the
Roaming Bison Wind Energy PPA is an economic choice for helping meet
NIPSCO’s retail electric load.

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

A9. My involvement in the All-Source RFP process was to ensure the process
conformed to NIPSCO’s intent to competitively bid and secure additional
electric energy and capacity in the amount needed to serve NIPSCO’s retail
customers in the future, and to assure that CRA conducted the process in a
fair and transparent manner.

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

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

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

For these reasons, and with advances in wind technology in areas such as
wind turbine availability, capacity factor, design and size, and wind
mapping, wind energy has become a viable source of renewable energy resources on a per megawatt-hour ("MWh") basis.

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

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

Q12. Please briefly describe Roaming Bison.

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

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1 Mapping refers to the process of assessing impacts of existing wind resources, restrictions on land use, and other sensitivities that may affect wind energy.
solar facilities with projects located throughout the country, including the
PJM Interconnection LLC, Southwest Power Pool, MISO, Western
Electricity Coordinating Council, Southeastern Electric Reliability Council,

Q13. What experience does Apex have in the wind generation business?
A13. Apex provides turnkey clean energy solutions to utilities including
development-transfer, build-transfer, PPAs, construction management,
RFP management, asset management and construction oversight. Since its
inception, APEX has been invested in opportunities sited in places that
blend the best wind resource with high potential for offtake.2

Q14. Does Roaming Bison have authority from the Commission to construct
this project, or has the Commission declined to exercise jurisdiction over
this project?
A14. No. The Roaming Bison Wind Energy PPA requires that the counterparty
file for such authority within 45 days of signing the agreement.

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

2 www.apexcleanenergy.com/utilities/
A15. As part of NIPSCO’s due diligence when evaluating the creditworthiness of potential counterparties, NIPSCO gathered and reviewed credit information during the pre-qualification process in the All-Source RFP. Counterparties that were investment grade based on their unsecured senior debt rating met the credit requirements. If a bidder did not meet the debt rating requirement or did not have a rating, they were required to post collateral upon executing a definitive agreement. Apex satisfies this collateral posting requirement. Also, Apex’s financial ability to complete construction of the wind project, along with the ability to continue successful operation of the wind project during the term of the Roaming Bison Wind Energy PPA is key to NIPSCO. NIPSCO has taken this into consideration by including performance security provisions in the Roaming Bison Wind Energy PPA. The Roaming Bison Wind Energy PPA requires Roaming Bison to provide to NIPSCO such performance security, no later than 30 days after NIPSCO receives state regulatory approval of the Roaming Bison Wind Energy PPA, in the form of either: (1) a guaranty from a qualified guarantor; (2) a letter of credit from a qualified financial institution; or (3) cash (collectively “Security Fund”). In the event Roaming Bison is in default of any of its obligations under the PPA or NIPSCO is
otherwise entitled to indemnification or damages under the PPA, NIPSCO has a right to access the Security Fund directly to reimburse NIPSCO for any damages or costs incurred as a result of Roaming Bison’s failure to comply with its obligations under the Roaming Bison Wind Energy PPA.

Q16. Please describe the Roaming Bison Project.

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

Q17. How were congestion risks assessed?

A17. Congestion risks were assessed using MISO’s future year ProMod models, which are capable of simulating hourly market operations for a given study.
The output was then used to determine the expected curtailments, total revenue, congestion, and loss charges for each site under consideration. Sites with greater congestion risk have been appropriately discounted in NIPSCO’s site analysis.

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

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

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

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

Q20. **Please describe the Roaming Bison Wind Energy PPA.**
A20. The Roaming Bison Wind Energy PPA is attached hereto as Confidential Attachment 1-B. Under the Roaming Bison Wind Energy PPA, Roaming Bison commits to provide NIPSCO energy generated from approximately 300 MW of installed wind turbine capacity at a [REDACTED] over a term of 20 years beginning at the Commercial Operation Date in 2020. The price includes the energy and all environment attributes (commonly referred to as “Renewable Energy Credits” or “RECs”) associated with the energy generated by the Roaming Bison Project and metered at the point of delivery. Roaming Bison will receive and retain existing and future tax credits or tax benefits as the owner and operator of the wind energy project. [REDACTED] The Roaming Bison Wind Energy PPA provides that if cost recovery is not approved by the Commission, then either NIPSCO or Roaming Bison may terminate the Roaming Bison Wind Energy PPA.

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

A21. As used in the Roaming Bison Wind Energy PPA, the term “Environmental Attribute” is intended to capture any changes to governmental rules,
regulations or law, or changes to registration systems put in place over the
term of the Roaming Bison Wind Energy PPA. I refer to the Environmental
Attributes acquired pursuant to the Roaming Bison Wind Energy PPA as
RECs, which are tradable credits corresponding to each megawatt-hour of
electricity generated by a renewable-fueled or environmentally friendly
source. NIPSCO anticipates the RECs it receives pursuant to the Roaming
Bison Wind Energy PPA will be tracked through the Midwest Renewable
Energy Tracking System (“M-RETS”). M-RETS is a database that tracks
relevant information about renewable energy produced and delivered in
the Upper Midwest, including the MISO footprint, to verify for subscribers
in states with mandatory or voluntary renewable portfolio standards or for
utility and other participants the RECs made available to them through
REC purchases and sales. M-RETS tracks the ownership of RECs and
generation attributes that result from the generation of renewable
electricity.

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

**A22.** The qualitative and quantitative value of the RECs associated with the energy delivered is discussed by NIPSCO Witness Lee. NIPSCO will
monitor and evaluate the marketability for the RECs. Any proceeds from the sale of the RECs NIPSCO chooses to sell will be passed back to NIPSCO’s customers in NIPSCO’s FAC proceedings.

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

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

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

A24. Federal tax incentives are currently in place for renewable and paired renewable/storage resources. Resources are eligible for a PTC, which provides a credit of $24/MWh for all generation produced by the facility.
The tax incentive is currently in the midst of a phase-out. To qualify for the PTC, projects need to begin construction by a certain date and be put into service by a certain date. The start of construction deadline can be met as long as certain equipment purchases and development costs have been “safe harbored” by federal tax authorities. The safe harbor for beginning of construction is investment of at least 5% of the total project cost on or before the specified date. The chart below reflects the phase-out schedule:

<table>
<thead>
<tr>
<th>Year During Which Equipment is Safe Harbored</th>
<th>Last Year Project Can Be Placed in Service to Qualify for Continuity Safe Harbor</th>
<th>Credit Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2020</td>
<td>100</td>
</tr>
<tr>
<td>2017</td>
<td>2021</td>
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<td>2023</td>
<td>40</td>
</tr>
<tr>
<td>2020</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

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

A25. NIPSCO will take delivery of the wind energy from Roaming Bison at a specified metering point. NIPSCO will be the Market Participant and will make the energy available in the MISO energy market. NIPSCO will be paying Roaming Bison the contract price per MWh and counting this wind
energy as used in the NIPSCO system. NIPSCO will “settle” the sale price for the wind energy sold into MISO against the price paid for the wind energy. NIPSCO offers its generation and bids its load into the MISO energy and ancillary services markets daily, along with other sales and purchases, in the end “settling” the costs against revenues. MISO treats wind energy projects as dispatchable intermittent resources. As such, Roaming Bison will be subject to real-time Revenue Sufficiency Guarantee and Uninstructed Deviation charges assessed under the Open Access Transmission, Energy and Operating Reserve Markets Tariff (“MISO Tariff”).

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

A26. Yes. The generator interconnection agreement that Roaming Bison will be receiving from MISO will have network resource interconnection service (“NRIS”) available for its full injection once any required transmission system upgrades are complete. Having NRIS will allow NIPSCO to designate this generation facility as a network resource to receive Network Integration Transmission Service (“NITS”) without further study.
Q27. Does the Roaming Bison Wind Energy PPA described herein represent prudent, valuable, and reasonably priced renewable energy resources for NIPSCO?

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

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

A28. NIPSCO is proposing to recover the Roaming Bison Wind Energy PPA costs throughout the full 20-year term of the agreement through a rate mechanism pursuant to Ind. Code §§ 8-1-2-42(a) and 8-1-8.8.11. For administrative efficiency and simplicity, NIPSCO proposes the timely cost recovery be administered through NIPSCO’s FAC proceedings (or successor mechanism). Furthermore, NIPSCO is seeking approval of power purchases pursuant to the Roaming Bison Wind Energy PPA as reasonable throughout the entire term of the agreement and therefore confirmation that the costs thereof are recoverable through the FAC proceedings (or successor mechanism) without regard to the Ind. Code § 8-1-42(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.

[Signature]

Andrew S. Campbell

Date: February 1, 2019
Attachment 1-A

[Verified Petition – Not duplicated herein]
Confidential Attachment 1-B (Redacted)