

Northern Indiana Public Service Company LLC

2022 Request for Proposals for Power Supply Generation Facilities and/or Purchase Power Agreements

Stakeholder Advisory Meeting
October 19, 2022

Charles River Associates



NIPSCO 2022 RFP

Participating Bidders



Process Overview

2022 All-Sources and Schahfer Development RFP



NIPSCO is currently executing two concurrent Requests for Proposal (“RFP”) for 2022:

1. All-Source RFP: All-Sources RFP for LRZ6 resources. The RFP is targeting 300 – 600+ MW of capacity resources.
2. Schahfer Development RFP: issued to identify an Engineering Procurement and Construction (“EPC”) development partner to construct a fully dispatchable and black start capable resource at the Schahfer site. The 370-450 MW (UCAP) resource will utilize the MISO generator replacement interconnection process.
 - Consistent with the MISO generator replacement protocols, NIPSCO must own the replacement resource. As such, development projects must be for NIPSCO ownership. All projects must also conform with NIPSCO’s technical specifications and requirements.

Key Process Dates:

1. Proposal Due Dates:
 - All-Sources RFP – Friday September 16, 2022
 - Schahfer Development RFP – Friday September 30, 2022
2. Bid Evaluation and Definitive Agreement Negotiation
 - Fourth Quarter 2022 and into 2023

All-Sources RFP Overview

NIPSCO Needs



In association with the Integrated Resource Plan (“IRP”) process, NIPSCO concluded that it is in the best interest of its customers to:

1. Seek to acquire, construct or contract for additional capacity that qualifies as a MISO internal resource (i.e. not pseudo-tied into MISO) with physical deliverability utilizing Network Resource Integration Service (“NRIS”) to MISO Local Resource Zone 6. NIPSCO may consider other MISO Local Resource Zones such as Zone 4; however, Zone 6 is preferred. Considered options include:
 - a. Direct sale of an existing facility to the utility or build transfer arrangements for facilities under development sale of an equity stake for a portion of a facility including a minority ownership interest.
 - b. Proposals that make use of NIPSCO’s opportunities to utilize the MISO Generator Interconnection Replacement at the site of planned retirements at Michigan City, Schahfer 17/18 (excluding amounts utilized by “Event 2 - Schahfer Development RFP”), and Schahfer 16A/16B.
 - c. Unit contingent PPA arrangements at the bus-bar or Indiana Hub, tolling arrangements (capacity payment in return for full control of the asset + fuel + O&M)
 - d. Shaped products, “Block” products or Option contracts with a specified strike price.

Schahfer Development RFP

Technology Constraints and Performance Requirements


















Contractor is to select a combination of industrial-frame and aeroderivative CTs (and optionally, RICE units) meeting the following constraints:

- Total net output between 370 MW and 450 MW.
- Maximum machine size of 275 MW.
- At least one machine 150 MW or larger.
- 10-minute cold start capability for 150 MW or more.
- 50 MW/minute minimum ramp rate for at least 150 MW of the Facility's machines.
- At least one machine with a minimum emission compliant load (MECL) less than or equal to approximately 25 MW.
- Stack emission limits Base Scope (with SCR): 2.5 ppm NO_x and enough space for future CO catalyst to achieve 2.5 ppm CO.
- Stack emission limits Option Scope (without installed SCR): NO_x 25 ppm, CO 25 ppm.
- Remote start and operational capability.

Bid Evaluation Criteria

2022 All-Sources and Schahfer Development RFP



 Levelized Cost	All Sources 	Schahfer 	<p>Levelized Cost of Energy or Capacity (LCOE) analysis will be conducted over a fixed planning horizon for all assets and bids submitted in both RFPs. The LCOE will reflect all expected costs related to the bid. The project level analysis will be based on data submitted with the bids, standard assumptions for key commodity considerations and may reflect adjustments for material uncertainties associated with a bid.</p>
 Reliability and Deliverability	All Sources 	Schahfer 	<p>The asset reliability and deliverability evaluation will include an assessment of transmission reliability, facility age and performance, and fuel risk and fuel security. Transmission reliability scoring will be based on transmission infrastructure and location. Facility performance will be based on the EFOR performance. Fuel reliability will consider fuel availability risk and price volatility.</p>
 Development Risk	All Sources 	Schahfer 	<p>The All-Sources RFP will include an evaluation category for development risk. The evaluation will consider progress on key development milestones as well as the development experience of the potential counterparty.</p>
 Conforms with Specifications	All Sources 	Schahfer 	<p>The Schahfer Development RFP will include an evaluation category that considers conformance with NIPSCO's preferred specification for the facility. NIPSCO has provided bidders details of the preferred specification and bidders were instructed to provide details of the design and capabilities of the Schahfer replacement resource</p>
 Asset Specific Benefits / Risks	All Sources 	Schahfer 	<p>Asset specific benefits and risks will consider individual, unique, project level risks associated with an individual project or counterparty. CRA will evaluate projects based on community benefits, certain social justice goals, minority and women owned business considerations, unique environmental considerations, specific regulatory risks or other considerations.</p>

NIPSCO 2022 RFP

Schahfer Development Bid Overview



- NIPSCO received 3 bids in response to the Schahfer Development RFP
- All bidders have well established track records and experience
- Bidders combined to offer NIPSCO over 1,200 MW in total of blackstart capable capacity

Preliminary

MW Capacity Range Across Bid	
Low	High
390	450

Schahfer Development bids averaged approximately \$900/kW however individual project costs may not be directly comparable due to technical capabilities, spec conformance and the range of services included in the bid price

- Bids include a range of options on long term service agreements (LTSA)
- Some Schahfer development projects offered hydrogen capabilities up to a 30% hydrogen blend in some cases

NIPSCO 2022 RFP

Overview of All-Sources Proposals Received



- **2022 All-Sources RFP generated a tremendous amount of bidder interest**
- **22 Bidders submitted 54 individual projects for consideration**
- **Projects across 5 states or regions with ~8.77 GW (ICAP) represented**
 - Many of the proposals offer variations on pricing structure and term lengths
 - Several instances of renewables paired with storage
 - Majority of the projects are in various stages of development

Preliminary

Count of Projects by Technology and Deal Structure

Technology	Solar	Solar + Storage	Wind	Standalone Storage	Thermal/Other	Total
PPA	7	4	2	9	4	26
Asset Sale	2	2	-	-	2	6
Both	13	3	-	4	2	22
Total	22	9	2	13	8	54
Locations	IN, KY, IL	IN, KY, WI	IN	IN, KY	IL, IN, KY, MISO, PJM	

NIPSCO 2022 RFP

Overview of All-Sources Projects Received



Project Count by State and Technology

Preliminary

State	Solar	Solar + Storage	Wind	Standalone Storage	Thermal/Other	Total
Illinois	1	0	0	0	2	3
Indiana	18	7	2	12	5	44
Kentucky	3	1	0	1	0	5
Wisconsin	0	1	0	0	0	1
MISO / PJM	0	0	0	0	1	1
Total	22	9	2	13	8	54

NIPSCO 2022 RFP

Overview of All-Sources Projects Received



Project MW ICAP by State and Technology

Preliminary

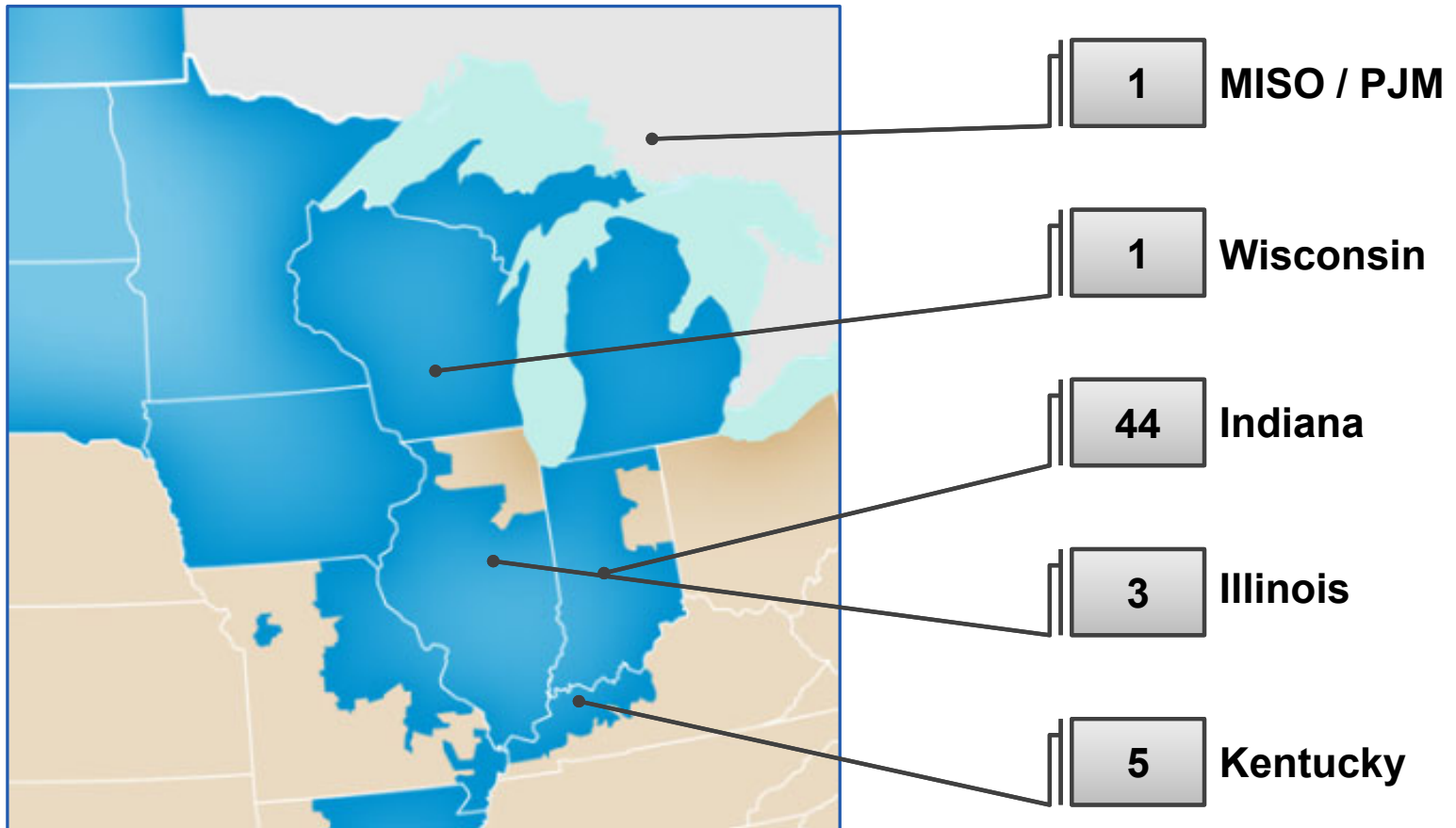
State	Solar	Solar + Storage	Wind	Standalone Storage	Thermal/Other	Total
Illinois	200	0	0	0	1,452	1,652
Indiana	2,215	1,050	401	2,009	424	6,100
Kentucky	550	100	0	200	0	850
Wisconsin	0	80	0	0	0	80
MISO / PJM	0	0	0	0	85	85
Total	2,965	1,230	401	2,209	1,961	8,767

NIPSCO 2022 RFP

Distribution of All-Sources Projects Received



Preliminary



Note: Blue area represents MISO territory

NIPSCO 2022 RFP

All-Sources PPA Overview



Proposal MW ICAP by PPA Term Length (PPA or Both) and Technology

Preliminary

Duration	Solar	Solar + Storage	Wind	Standalone Storage	Thermal/Other	Total
5 – 6 Years					1,452	1,452
12 Years		80				80
15 Years	1,380	280	403	1,608	288	3,959
20 Years	1,660	1,530	603	4,249	103	8,144
25 Years	785	400				1,185
30 Years	200	300			68	568
Total	4,024	2,590	1,005	5,857	1,911	15,388

Note – a single physical project can be offered over multiple contract term lengths

NIPSCO 2022 RFP

All-Sources Storage Overview



Preliminary

- NIPSCO received bids for storage both as standalone projects and integrated with solar facilities
- MW totals for “Solar + Storage” reflect the solar capacity only but the storage component adds value and functionality to the integrated facility

Storage Project MW ICAP by Type	
Storage Integrated with Solar	1,230
Standalone Storage	2,209

- Integrated options for solar exist in several locations within MISO but like standalone options are concentrated within the target LRZ6 region

Storage Project MW ICAP by State and Type

State	Storage Integrated with Solar	Standalone Storage
Illinois	0	0
Indiana	1,050	2,009
Kentucky	100	200
Wisconsin	80	0
MISO / PJM	0	0
Total	1,230	2,209

NIPSCO 2022 RFP

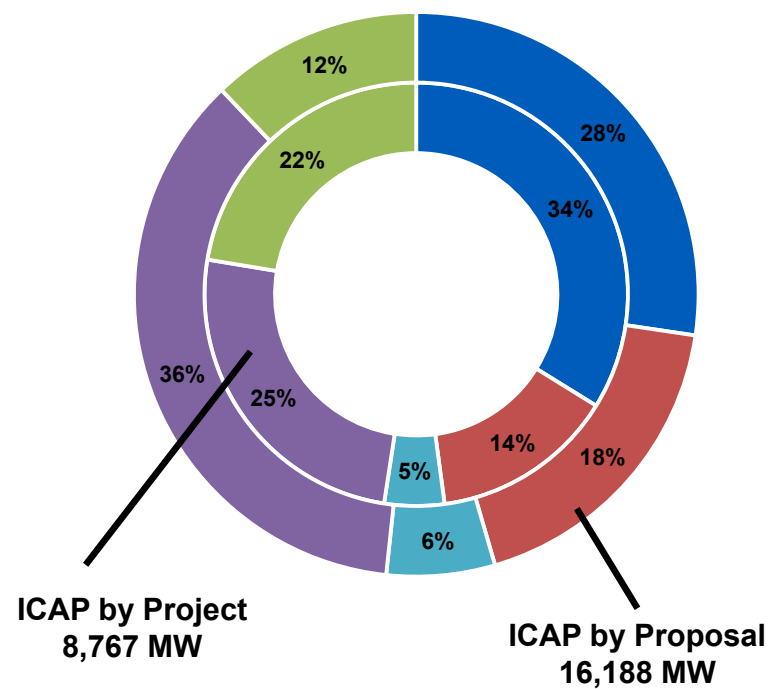
Allocation of All-Sources Proposals and Projects by Technology



Allocation by Technology (MW ICAP)

Preliminary

Technology	ICAP by Project		ICAP by Proposal	
	MW	%	MW	%
Solar	2,965	34%	4,424	28%
Solar + Storage	1,230	14%	2,940	18%
Storage	2,209	25%	5,857	36%
Thermal / Other	1,961	22%	1,961	12%
Wind	401	5%	1,005	6%
Total	8,767	100%	16,188	100%



NIPSCO 2022 RFP

Summary of All-Sources Pricing



Average Weighted Pricing by Technology & Deal Structure

Preliminary

Technology	Asset Sale		Power Purchase Agreement			Comments
	\$/kW	Count	PPA \$/MWh	\$/kW-Mo	Count	
Solar	\$2,129	15	\$60.84	N/A	20	PPA price reflects base price for projects with escalating schedules.
Solar + Storage	\$2,678	5	\$55.76	\$11.66	7	Typical PPA structure for integrated solar and storage includes both a fixed and variable component
Storage	\$2,249	3	N/A	\$13.14	12	
Thermal / Other	\$763	4	\$57.47	\$8.14	6	Prices reflect a range of pricing structures. Offers in some cases include additional pass through costs
Wind	N/A	N/A			2	PPA price redacted for confidentiality reasons

- Average bid prices shown for 'Asset Sale' represent capital costs and exclude on-going fuel, O&M and CapEx (where applicable)
- Figures shown are for representation and do not purport competition between technologies; Separate short-listed assets are created for each RFP event

NIPSCO 2022 RFP

Next Steps in All-Sources RFP Evaluation Process



- **October / November 2022:** Bid Evaluation Period (tentative)
- **December 2022:** Definitive Agreements negotiated with All-Sources RFP winning bidders (tentative)
- **Bid evaluation considers both cost and non-cost factors**
 - Asset Cost - levelized cost for resources
 - Facility Reliability and Deliverability
 - Development Risk
 - Asset Specific Benefit and Risk Factors
 - Conformance with technical specifications
- **Representative cost and performance characteristics by technology have been developed based on RFP bids and have been provided to the IRP team for portfolio optimization modeling**
 - IRP to determine the preferred portfolio for bid selection and execution