Stakeholder Meeting

Indiana Michigan Power Company
2022 All-Source RFP
Pre-RFP Meeting

February 8, 2022

Hosted by Charles River Associates

INDIANA MICHIGAN POWER
An AEP Company

CRA Charles River Associates

Welcome

Questions will be answered at the end of each section and after the prepared presentation

- Send an email to IMAllSourceRFP@crai.com or
- Raise your hand in the Microsoft Teams webinar platform and your microphone will be enabled (you must unmute first to be heard)
- **Note:** If you wish to remain anonymous, please send us an e-mail. By speaking on the Teams webinar, your name will be visible to all participants

Following the prepared presentation…

- Participants will be directed to raise their hand should they have a question
- Questions received via the e-mail box will be answered after direct questions
- Substantive questions will be posted on the RFP website

Agenda

- Introduction
- Scope of the All-Source RFP
- Evaluation Criteria
- RFP Development Process and Timeline
- Stakeholder Feedback Process
- Q&A

Introduction

- This meeting is to facilitate a discussion with stakeholders to review the draft RFP, minimum eligibility requirements, and evaluation factors.
- Draft RFP documents and evaluation factors have posted publicly on this website. We look forward to comments from all stakeholders.

Agenda

- Introduction
- Scope of the All-Source RFP
- Evaluation Criteria
- RFP Development Process and Timeline
- Stakeholder Feedback Process
- Q&A

Scope of the All-Source RFP

Resource Requirements

- Indiana Michigan Power will be issuing an All-Source RFP on March 10, 2022.
- The RFP will seek to secure the resources outlined in its preferred portfolio developed as part of the 2021 Integrated Resource Plan (IRP).
- Consistent with this portfolio, I&M seeks approximately 800 MW of wind resources, 500 MW of solar resources, and other qualified capacity resources from thermal, standalone storage, emerging technologies, and other supplemental capacity resources to meet overall capacity portfolio requirements.

Scope of the All-Source RFP

Resource Requirements

Category	Wind (Storage Optional)	Solar (Storage Optional)	Standalone Storage, Emerging Technologies, Thermal, and Other Capacity Resources
Ownership Structure	Purchase and Sale Agreement (PSA) or Power Purchase Agreement (PPA)		
Nameplate Capacity	800 MW	500 MW	Supplemental capacity to meet overall capacity need.
Target COD/ Commencement Date	12/15/2024 or 12/15/2025		
Location	Indiana, Michigan, or Illinois	Indiana or Michigan	
Interconnection	1) PJM 2) MISO (w/ bidder being responsible for being responsible for securing Firm Transmission from the project in MISO to PJM) 3) I&M distribution interconnected projects		
Interconnection Impact Study Status	Completed from either PJM, or AEP if on the AEP I&M distribution system. For MISO connected projects, must have completed phase 3 of MISO's Definitive Planning Phase and have the Final DPP SIS and Network Upgrade Facilities Study and have secured Firm Transmission into PJM.		
Battery Energy Storage Option	Targeting within a ratio of 5:1 to 3:1 of the nameplate rating and 4 to 8 hours of storage		4 to 8 hours of storage, with consideration for projects that can enhance existing I&M facilities with storage capability
Carbon Emissions Requirement	N/A		Generating units must have low carbon emissions or mitigating technology

Scope of the All-Source RFP

Resource Requirements

Category	Wind (Storage Optional)	Solar (Storage Optional)	Standalone Storage, Emerging Technologies, Thermal, and Other Capacity Resources
Emerging Technologies	N/A		Technology needs to have demonstrated feasibility, be commercialized, and qualify as a Capacity Resource under the PJM Tariff
Minimum PPA/PSA Size	20 MW		
Minimum PSA Design Life	30 year		Preferred 30 year; minimum 15 year (technology dependent)
Minimum PPA Term	15 year (and required to show a 30 year option)		15 year
Products	Bundled renewable energy product. Energy, Capacity, Ancillary Services, Environmental Attributes, optional BESS		Energy, Capacity, Ancillary Services, Environmental Attributes, optional BESS
PPA Price Structure	Fixed price / Non-Escalating All-in around-the-clock price		Technology Dependent
ROFR and Buyout Option	Yes		
Affiliate or Self Build	No		

Agenda

- Introduction
- Scope of the All-Source RFP
- Evaluation Criteria
- RFP Development Process and Timeline
- Stakeholder Feedback Process
- Q&A

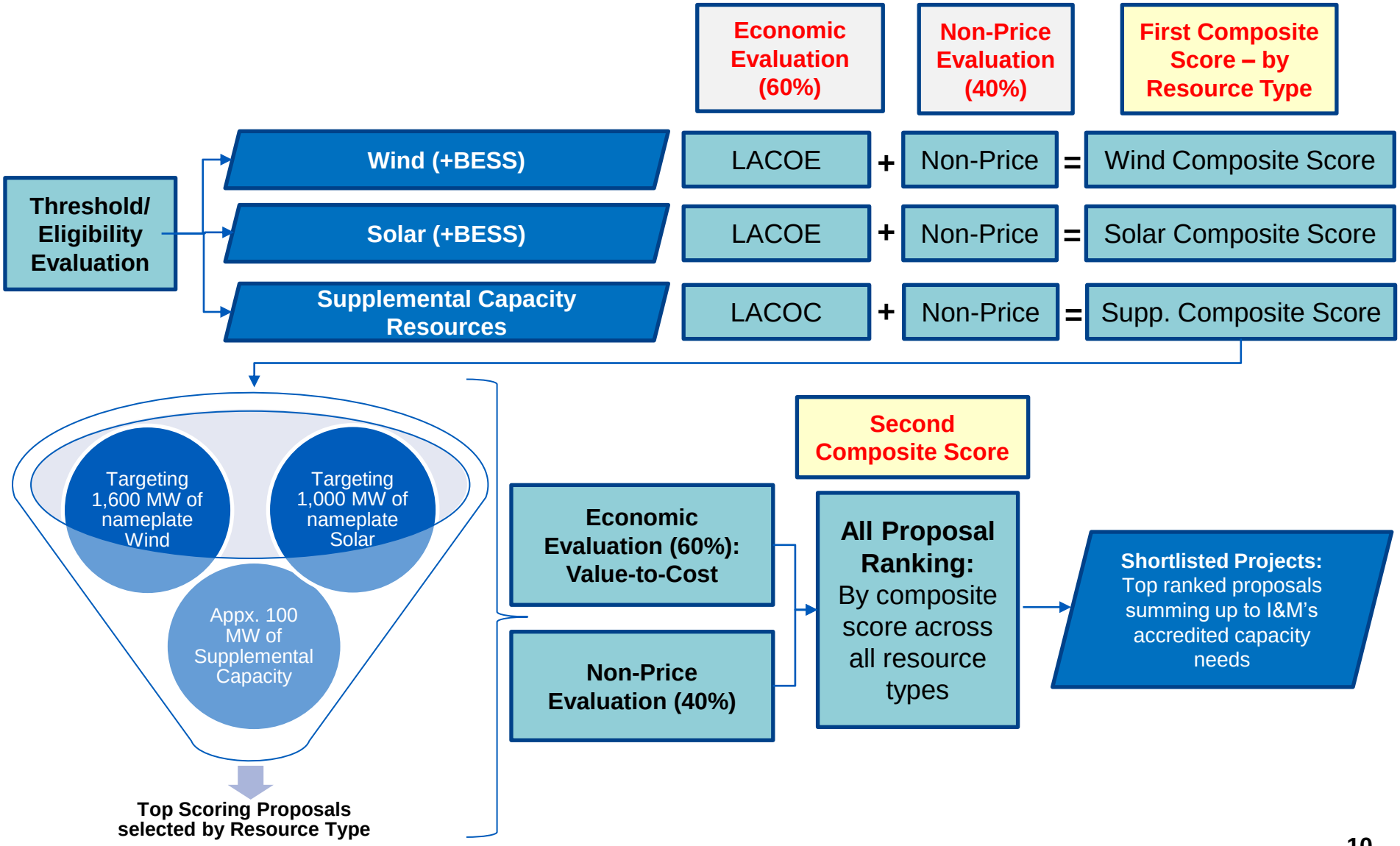
Evaluation Criteria
Eligibility & Threshold Items

CRA will evaluate the following items:

- Base Proposal is for PSA or PPA
- COD by 12/2024 or 12/2025
- Minimum Size of 20 MW
- Located in IN, MI or IL for wind, or, IN or MI for solar and other capacity resources.
- Completed PJM System Impact Study, a completed MISO Final DPP SIS and Network Upgrade Facilities Study and Firm Transmission from the Project into PJM, or a completed I&M Distribution Impact Study
- Site Control
- Technology
  - Wind (GE, Vestas, Siemens)
  - Solar (Approved Panels/Inverters)
  - Battery Storage (Approved manufacturer)
  - Thermal (Low carbon emissions or accompanying mitigating technology)
  - Other (Proven technology and commercial feasibility)
- Resource Report
  - Wind (Independent Wind Report)
  - Solar & Other (Resource Information)
- Minimum Design Life - 30 year for wind and solar, technology design life standard for other resources.
- Developer experience and financial backing
- Exceptions to form PSA or PPA (including ROFR/Buyout)
- Exceptions to AEP Facility Standards

Evaluation Criteria

Process



Evaluation Criteria

Price Criteria (60%)

- Proposals will be evaluated using multiple Price Metrics to best capture the costs and value streams relevant to different Resource Types

	Price Metric	Calculation	Scoring Metric[1]
Phase 1	**Levelized Adjusted Cost of Energy (LACOE)**	$\frac{\text{PV Total Cost}}{\text{PV Expected Lifetime Energy Output (MWh)}}$	First Composite Score for Wind and Solar
	Levelized Adjusted Cost of Capacity (LACOC)	$\frac{\text{PV Total Cost}}{\text{PV Installed Capacity Value (MW)}}$	First Composite Score for Supplemental Capacity Resources
Phase 2	**Value to Cost Ratio**	$\frac{\text{PV Total Value}}{\text{PV Total Cost}}$	Second Composite Score across all Resource Types

1. Scoring Metrics are evaluated on a curve that is set by the highest ranking Proposal in a particular category. The highest ranking Proposal will score the maximum 60 points. The remaining 40 points of the 100 point Composite Score are derived from the Non-Price Evaluation metrics.

Evaluation Criteria

Further Detail on Total Cost Components

Component of Total Cost	Definition
Proposal Bid Price	• For PSAs, bid price is adjusted to include estimated Interconnection, Network Upgrade, Contingency, and owner's costs (PM, IT, Telecom, etc.) • For PPAs, as quoted bid price
O&M Costs	• Operations and Maintenance costs for the facility, inclusive of Land Lease, Auxiliary Load, Insurance, and Property Taxes
Tax Expenses	• Federal and State Taxes
Federal Tax Credit	• Project specific
Fuel Costs	• Any necessary fuel adders associated with Bidder's Proposal, including current fuel arrangements and pricing mechanisms
Decommissioning Costs	• Retirement Costs, Expected Salvage Value, and Terminal Value
Debt Equivalence Cost	• Estimated costs associated with the impacts of PPA contracts on a utility's credit metrics and associated cost of capital
Transmission Congestion Cost	• Marginal cost of congestion at a given node or external node relative to the load-weighted average of the system node prices

- Not all Proposals (ex. PPA/PSA) include all Total Cost components
- All costs are evaluated at present value
- To the extent the asset is not under I&M control at any point in the period, cost will reflect market purchases of bundled Renewable Energy Products and Supplemental Capacity Products
- Other costs may be included based on I&M's discretion to appropriately evaluate each Proposal

Evaluation Criteria

Further Detail on Total Value Components

Component of Total Value	Definition
Energy	• Hourly energy price (2021H2 Fundamentals, Base $15CO2 Scenario) multiplied by Proposal's 8760
Capacity	• Annual capacity price (2021H2 Fundamentals, Base $15CO2 Scenario) multiplied by Proposal's nameplate capacity with PJM ELCC applied
Renewable Energy Certificates (RECs) in the PJM market	• PJM broker REC quotes multiplied by Proposal's estimated annual energy generation

- Not all Proposals (ex. PPA/PSA) include all Total Value components
- All value streams are evaluated at present value
- Other value streams may be included based on I&M's discretion to appropriately evaluate each Proposal

Evaluation Criteria

Non-Price Evaluation Criteria (40%)

- A total of ten non-price factors will be considered in the evaluation process for each proposal.
- The ten non-price factors are further grouped into four categories

Category	Factors
Proposal/Project Quality	• Bidder Experience and Financial Wherewithal
	• Exceptions to AEP Generation Facility Design Standards
	• Exceptions to Form PSA or PPA
Asset-Specific Benefits and Risks	• Contract Term/Asset Life-Related Market Risks
	• Ownership Optionality and Flexibility Benefits
Development Status / Risks	• Development Status, Interconnection Status, and Other Project Completion Risks
	• Project Timing
Environmental, Social, and Economic Impacts/Benefits	• Carbon Emissions Goals
	• Environmental and Wildlife Impact / Permitting
	• Indiana and Michigan Economic Stimulus Benefits, Community Support, and Supplier/Contractor Diversity

Evaluation Criteria: Development Status and Risks

Non-Price Evaluation Criteria

Factor	Description
Development Status, Interconnection Status, and Other Project-Completion Risks	Review of the development status of the project including, but not limited to land leases, permitting (local and federal), and arrangements with equipment suppliers and contractors. Review of criterion associated with the proposed project's planned interconnection arrangements. This review shall focus on criterion such as completeness of the Generation Interconnection process as prescribed by the respective Regional Transmission Organization (RTO), scope, schedule and estimated deliverability of the prospective project. Review of the Bidder's proposal with a focus on potential risks (e.g. project schedule, equipment supply arrangements) associated with achieving the targeted commercial operations date.
Project Timing	Review of the likelihood a project being online to support the timing of near-term capacity needs identified in the Preferred Plan in I&M's IRP process. Those projects that can reliably meet commercial operation status earliest in 2024 and can represent that they will achieve a completed Facilities Study in early 2023 will be scored highest.

Evaluation Criteria: Proposal Project Quality

Non-Price Evaluation Criteria

Factor	Description
Bidder Experience and Financial wherewithal	Review of the Bidder's experience including Bidder's success in completing similar sized projects in the relevant state/jurisdiction, the number of successful projects the Bidder has been involved with to-date, and the Bidder's role in the completion of those projects. Assess Bidder's ability to meet contractual credit requirements through the review of recent financial statements, ability to post collateral and raise capital, and any other relevant financial information including current credit ratings. The Company will evaluate the form of the Bidder's collateral, including potential parent guaranty, and verify that it is acceptable AEP.
Exceptions to AEP Generation Facility Design Standards	For bids that have passed E&T, this factor considers the exceptions the Bidder may have to AEP's Facility Generation Standards and its associated attachments. All exceptions will be considered in the scoring of this category. Prior agreement by AEP in previous negotiations does not constitute acceptance of an exception.
Exceptions to Form PSA or PPA	For bids that have passed E&T, this factor considers the Bidder's exceptions (if any) to the Company's form agreements with a focus on risks or additional costs to the Company. All exceptions will be considered in the scoring of this category. Prior agreement by AEP in previous negotiations does not constitute acceptance of an exception.

Evaluation Criteria: Environmental, Social, and Economic Impacts / Benefits

Non-Price Evaluation Criteria

Factor	Description
Carbon Emissions Goal	AEP is committed to a goal to achieve net zero carbon emissions by 2050, with an interim target to cut emissions 80% from 2000 levels by 2030. Each bid will be reviewed with respect to its emissions rate, carbon capture technology, and potential to facilitate non-carbon based fuel sources.
Environmental and Wildlife Impact / Permitting	Review of the status of applicable environmental documents associated with the project including, but may not be limited to, wetland and waters delineations, cultural and historical resource investigations, wildlife surveys and assessments, habitat assessments, permit matrix and permit documentation, resource agency correspondence and meeting notes, potential for environmental justice concerns, and Phase I ESA.
Indiana and Michigan economic stimulus benefits, community support, and suppliers/contractor diversity	Review Bidder's proposal for its potential to increase private investment by companies that value proximity to renewable energy sources, Review economic benefits to local governments and businesses as well as local property and sales tax benefits. The review will assess known historical community support or opposition of a renewable project and the bidder's plan for managing community relations. The review will also include consideration of the developer's plan to use small and diverse suppliers and subcontractors, and contractors based in Indiana and Michigan.

Evaluation Criteria: Asset-Specific Benefits and Risks

Non-Price Evaluation Criteria

Factor	Description
Contract Term/Asset Life-Related Market Risks	The extent to which the proposal exposes the Company and its customers to higher than projected market prices and volatility due to the term-length of a contract or the finite life of an asset.
Ownership optionality and flexibility Benefits	Review of the bid and associate terms, to determine benefits that would accrue to the Company and its customers, with respect to the potential for operational flexibility, ability to reliably meet energy, capacity, and ancillary service needs under emergency events and volatile market conditions, and enhancement value of the facility with respect to the resource's ability to meet current and changing future operational and market needs (ex: storage and new technologies, ability to adapt to new market rules).

Evaluation Criteria

Non-Price Score Characterization

- Non-price factor evaluations will be conducted by knowledgeable industry professionals from AEP and I&M with specific expertise in each of the non-price factor topics.

General Characterization of Non-Price Factor Scores	
Score	**Description**
10	Excellent. The proposal exhibits high quality or value, results in the least impacts, with limited risk of delivery, and/or significant benefits to I&M customers.
9	
8	Good. The proposal exhibits characteristics of both the satisfactory and excellent rating characterizations.
7	
6	Satisfactory. The proposal generally meets industry standards for quality, reliability, with typical/moderate impacts/benefits, or imparts moderate risk for successful project delivery.
5	
4	Less than satisfactory. The proposal exhibits characteristics of both the 3 satisfactory and poor rating characterizations.
3	
2	Poor. The proposal exhibits low quality, high impacts, limited benefits, 1 and/or significant increased risk to successful project completion.
1	

Evaluation Criteria

Non-Price Score Calculation Example

- Each category is worth 10 points toward the overall maximum score of 40 points for each proposal's non-price factor evaluation score.
- Category scores will be calculated by summing individual non-price factor scores in each category and then dividing by the total possible score for that category.
- The resultant value will then be multiplied by the total points allocated to that category.

Factor 1 – Category A	Factor 2 – Category A	Total Score – Category A	Rating	Category A Score
4 pts of 10 pts	8 pts of 10 pts	4 pts (Factor 1 Score) + 8 pts (Factor 2 Score) = 12 pts	12 pts / 20 pts = 60%	60% x 10 pts = 6 pts

Evaluation Criteria

Non-Price Criteria – Other Considerations

- After scoring each of the four categories, the total non-price score for a proposal will be calculated by the taking the sum of all four category scores.
- The analysis process, evaluations, and scoring results of these assessments will be reviewed by the Independent Monitor.
- In some cases, certain bid specific information may identify a factor of importance that was unanticipated at the time of factors were developed in the RFP or situations may arise where the level of risk is not accurately represented in scoring.
- In such cases, scoring may be adjusted or factors added at I&M's discretion. I&M will coordinate such substantive changes with the Independent Monitor.

Agenda

- Introduction
- Scope of the All-Source RFP
- Evaluation Criteria
- RFP Development Process and Timeline
- Stakeholder Feedback Process
- Q&A

RFP Development Process and Timeline

Development Process

- ✓ Review RFP plan with stakeholders
- ✓ Develop the draft RFP for release
- Receive feedback from stakeholders via the IM
- Update the draft RFP based on feedback received
- Issue RFP

Schedule

Task	Completion Date
RFP Development Meeting	January 18th, 2022
Draft RFP Released	January 28th, 2022
Pre-RFP Stakeholder Meeting	**February 8th, 2022 (3pm EST)**
Comments Due	February 18th, 2022
Issue RFP	March 10th, 2022
Proposals Received	April 21st, 2022
Eligibility and Threshold Review	May 10th, 2022
Recommended Shortlist	June 30th, 2022

Agenda

- Introduction
- Scope of the All-Source RFP
- Evaluation Criteria
- RFP Development Process and Timeline
- Stakeholder Feedback Process
- Q&A

Stakeholder Feedback Process

- CRA is actively soliciting feedback from customer groups and potential participants. To this end, CRA has established a dedicated e-mail to receive comments from stakeholders
- Stakeholders should direct any questions, concerns, suggestions, or comments for consideration and potential inclusion in the upcoming RFP directly to CRA via this e-mail address.
- CRA will share only the core content of the communication and not any identifying information with respect to the sender either with I&M or other parties unless otherwise compelled to do so by law.

Website	https://www.IMAllSourceRFP.com
Email	IMAllSourceRFP@CRAI.com

Agenda

- Introduction
- Scope of the All-Source RFP
- Evaluation Criteria
- RFP Development Process and Timeline
- Stakeholder Feedback Process
- Q&A

Questions and Answers

Previously Received – Project Location

Question	Answer
Will I&M consider projects in Illinois? Would AEP I&M consider projects in the MISO interconnection queue?	Under the framework presented on January 18, I&M projects must be located in the states of Indiana or Michigan (or Illinois for Wind Projects) and interconnect to 1) PJM, 2) MISO with firm deliverability rights into PJM, or 3) I&M's Distribution System. I&M has a preference for projects that provide economic benefit to the states of Indiana or Michigan. Projects in PJM must have a completed PJM System Impact Study. Projects interconnecting to MISO must have completed Phase 3 of MISO's Definitive Planning Phase and have the Final DPP SIS and Network Upgrade Facilities Study and have secured Firm Transmission into PJM. Projects interconnecting to I&M's distribution electrical system must have a completed Distribution Impact Study from the I&M Distribution Planning Group. The interconnection point with PJM or I&M's distribution electrical system will be the Point of Delivery.

Questions and Answers

Previously Received – Debt Equivalency

Question	Answer
Can you explain how debt equivalency costs plays a role in the RFP?	Debt equivalency costs are intended to account for the “debt-like” financial obligation impact that Power Purchase Agreements have on the credit metrics of Utilities. Debt equivalency costs are included in the Levelized Adjusted Net Cost of Energy (LANCOE) for all PPAs to ensure projects are compared on an equivalent basis.
Are there inflection points considered for debt equivalency?	No, debt equivalency costs are estimated by I&M and applied in the Levelized Adjusted Net Cost of Energy (LANCOE) to all PPA proposals.

Questions and Answers

Previously Received - Technology

Question	Answer
Will a demand response program be an acceptable way to meet the capacity requirements of this RFP?	No. A demand response program (DR) will not be considered as a qualifying resource within this RFP.
Emerging long duration energy storage technologies have the potential to provide significant performance and economic optimization benefits. These technologies are commercially available today and development is already underway for several projects for customers in the US with COD in the next couple of years. The requirement to have a completed interconnection study before proposal submission prevents the majority of technologies (beside li-ion) from being considered, despite the willingness of technology providers to financially guarantee the performance of the system. Is there an avenue available to discuss non-conforming bids that address the biggest pain points faced by IMP?	The interconnection study status requirements in the RFP are designed to ensure that: 1) projects have reached a level in the interconnection process that ensures they can be reliably delivered within the required timeframe, and 2) that estimated interconnection and network upgrade costs can be incorporated into the bid selection process. One exception to this requirement is that storage projects that are being proposed to enhance the capacity of existing I&M-owned solar facilities will either require a completed system impact study or have established capacity injection rights into PJM.

Questions and Answers

Previously Received – Confidentiality Agreement

Question	Answer
Can prospective bidders begin the process of signing a CA and gaining access to the documents listed in Section 6.4 of the draft RFP or is this not allowed until the final RFP documents are released?	I&M will process requests for the confidentiality agreements prior to the release of the RFP. Companies who execute the CA prior to the RFP release will receive the documents on the RFP release date.

Confidentiality Agreement

- As noted in Section 6.4 of the draft RFP, in order to receive the form PPA and PSA, technical standards, and datasheets, bidders will need to execute a Confidentiality Agreement (CA)

- To expedite the CA process in advance of the RFP release, bidders may at this time request I&M's Form CA by emailing I&M2022RFP@aep.com and Cc IMAllSourceRFP@CRAI.com and including the following documentation:
  - Verification of Site Control as required by Section 3.8.10.
    - Completed interconnection study as follows:
      - PJM Projects: Completed PJM System Impact Study as required by Section 3.9.2 and 3.9.5, or
      - MISO Projects: Completed Final DPP SIS and Network Upgrade Facilities Study and Firm Transmission into PJM as required by Section 3.9.3, or
      - I&M Distribution Projects: Completed I&M Distribution Impact Study as required by Section 3.9.4.

- To the extent that prospective bidders execute the form CA prior to the RFP release, then bidders will receive the documentation upon the RFP release date.

Questions and Comments

At this time, if you have a question or comment, please:

- Send an email to IMAllSourceRFP@crai.com or
- Raise your hand in the Microsoft Teams webinar platform and your microphone will be enabled (you must unmute first to be heard)
- **Note:** If you wish to remain anonymous, please send us an e-mail. By speaking on the Teams webinar, your name will be visible to all participants.

To ensure all participants have an equal opportunity to submit their question, participants will be limited to one question and a follow up question if there are other questions in the queue.

- If time permits, you may pose additional questions.