Appendix A: Minimum CBRE Criteria

PGE expects to run a "two-track" process to advance bids, as described in the RFP main document. The technical guidance to achieve "track one" designation and to advance through the process is outlined below. PGE views these requirements as required to advance to commercial negotiation, but bidders will not be removed from consideration if all requirements are not met at the time of bid.

	Community-based acquisition
Purpose and Scope	Portland General Electric (PGE) has a CBRE target of 155 MW by 2030 within our Clean Energy Plan.[1] We anticipate one or more structured acquisition processes to acquire community based renewable energy (CBRE) resources on behalf of customers. Bidding projects must generally be consistent with the definition of CBRE per Section 1(2) of Oregon House Bill 2021 (HB 2021) and must be combined with at least one of the following: - Paired storage systems or other dispatchable capacity products. - Microgrids with an appropriate project size as defined below. - Controllable Demand response measures. - Energy-related infrastructure that promotes energy resilience[2]. PGE further clarifies that for the purposes of this solicitation, the company is seeking one or more renewable energy systems that meet the requirements specified in this document.
Eligibility	As applicable, Bidders must comply with all laws and regulations including being authorized under the law to sell power and be able to schedule power and operate according to industry standards established by the Federal Energy Regulatory Commission (FERC), Western Electricity Coordinating Council (WECC), and the North American Energy Reliability Council (NERC), and/or other applicable regulatory body or government agency.
Environmental	All projects must generate non-emitting electricity per the definition of non-emitting in Section one of HB 2021. Any environmental attributes must be able to be registered in the Western Renewable Energy Generation Information System (WREGIS) and retired on behalf of a community – as determined by the CBIAG – or otherwise be deliverable to PGE as a bundled product with delivered energy.
Volume	PGE will accept bids with an aggregate size not exceeding 19.99 MW

[1] PGE's Clean Energy and Integrated Resource Plans can be found at https://portlandgeneral.com/about/who-we-are/resource-planning/combined-cep-and-irp.

[2] As defined in Oregon's House Bill 2021 https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/HB2021/Enrolled

Project Types	Resources bid into this solicitation must not otherwise be delivering electricity to PGE under wholesale agreements or through retail programs. Projects that are in the queue for a retail program but are not yet online may bid into this RFP but must relinquish any other queue position or offering to PGE. PGE reserves the right to refer projects to existing programs when appropriate.
Commercial structure	PGE will consider power purchase agreement, build transfer agreement, co-investment structures, and/or development rights bid. PGE encourages respondents to propose unique and creative ownership structures that distribute the benefits of resource ownership to communities.
Term	PGE requires a 10-year minimum term and a 30-year maximum term for any agreements.
Interconnection	Projects must be able to interconnect and deliver to PGE's transmission or distribution system and follow all interconnection requirements and guidelines. Projects must have a completed interconnection application submitted and ready to be processed. This includes all applicable fields in the application completed, all application fees paid, and supporting documentation available upon request. For projects that are identified as top-performing, commercial negotiations will commence once the interconnection technical screenings and studies are complete and an interconnection cost estimate is available from PGE. Procedures and requirements available at: portlandgeneral.com/renewable-installers/interconnection-process-overview
Pricing	Bidders must clearly articulate the cost to PGE of: - The renewable energy and non-emitting capacity offer to PGE. This should include either the offtake through a power purchase agreement or similar structure, or the total asset purchase cost, dependent on the proposed commercial structure. - The proposed community benefit component of the proposal. Bidders should clearly articulate which costs are driven by the community benefit requirements. To the extent that project-level decisions were made in pursuit of greater community impact (such as siting or interconnection in a certain location), PGE encourages bidders to estimate the increased cost as a result of that pursuit of community benefit and provide appropriate substantiation of such community benefit. - Any eligibility for tax credits and/or grant funding awarded to the project, shown as a cost offset. Items such as land available for siting made available at below-market cost, capital availability through public entities, or federal funding streams should be shown.

Energy Resilience	Oregon House Bill 2021 provides two definitions for resilience. Projects bidding energy related infrastructure that cite resilience as part of their bid should include a narrative description of how the project promotes: Energy-based resilience: meaning the ability of energy systems, from production to delivery to end-users, to withstand and restore energy delivery rapidly following nonroutine disruptions of severe impact or duration; **and/or** Community energy resilience: the ability of a specific community to maintain the availability of energy needed to support the provision of energy dependent critical public services to the community following nonroutine disruptions of severe impact or duration to the state's broader energy systems. This includes resilience for critical facilities as well as resilience hubs that are available for community members to access power and other services in the event of a severe power outage or service disruption.
Labor and construction	PGE reminds Bidders that Oregon House Bill 2021 includes labor provisions that support family-wage jobs for the construction and repowering of renewable energy resources in the state. All bids received that are subject to House Bill 2021 must fully comply with the labor standards set within the legislation. PGE requires that the Bidder has policies in place that are designed to prevent workplace harassment and discrimination. PGE will be asking that the Bidder has policies in place that are designed to promote workplace diversity, equity and inclusion of communities who have been traditionally underrepresented in the energy sector including, but not limited to, women, veterans, and Black, Indigenous and People of Color, with an aspirational goal of having at least 15 percent of the total work hours performed by individuals from those communities.

Telemetry Requirements

CBRE projects will be required to provide a power control system and communication equipment sufficient to provide PGE dispatch control and monitoring to meet the list of required capabilities below. Projects less than 1 MW of export capacity will be required to provide the basic capabilities and may provide the advanced capabilities. Projects over 1 MW of export capacity will need to provide sufficient control and monitoring to provide both basic and advanced capabilities. In all cases the power control system will need to provide PGE the ability to initiate and halt a dispatch, communicate the planned capacity, and track that capacity in real time.

MW	Basic Capabilities	Advanced Capabilities
Less than 1 MW	Mandatory	Mandatory

1 MW – 2.99 MW	Mandatory	Mandatory
3 MW +	Mandatory	Mandatory

Capability Type	Use Case	Scenario	Resource Requirements
Basic	Generation Capacity	- Resources used to meet load, often during peak times or emergency events.	
	Hourly Economic Dispatch	- Utilize aggregated generation or load resources when economics are favorable compared to other sources	- Metered with 60 sec telemetry. - Dispatched automatically via EMS or similar system with PGE control. - Controllable to defined ramp rate (as an aggregate).
Advanced	Distribution and Transmission Locational Benefits	- Utilize aggregated resources at specific locations to target equipment off loading.	- Dispatched at the direction of the PGE Control via operating instruction or SCADA control. - Ability to enable/disable within 60sec. - No notice provided to resource.
	Sub-Hourly Economic Dispatch	- Participating resource in EIM. Adjusts output every 5 minutes in response to EMS signal.	- Metered with 10 sec telemetry. - Dispatched automatically via EMS with PGE control. - Controllable to defined ramp rate (as an aggregate).
	Frequency Responsive Reserves	- Provide load reduction and distributed generation automatically in response to frequency events to help meet BAL-003 requirements.	- Resource responds to frequency event within 20s of event with no manual control. - No notice provided to resource.
	Regulation	- Utilize VPP as an AGC resource. - Control signals sent in response to changing ACE to help meet BAL-005 requirements.	- Metered with 2 sec telemetry. - Dispatched automatically via EMS with PGE control. - Controllable to defined ramp rate (as an aggregate).
	Contingency Reserves	- Provide load reduction and distributed generation for PGE's contingency reserve requirements as part of BAL-002.	- Metered with 60sec telemetry - Dispatched manually by PGE Control in EMS. - Reliably able to meet desired output within 10 minutes of dispatch.

			- Sustainable for 60 minutes. - No notice provided to resource.

The Company will perform regular testing of the Project's Generation Resource(s) and control system as well as testing of the Company's dispatch control and interconnection facilities. The Company will coordinate testing to ensure the power control system is providing accurate power quality monitoring and data reporting of the Customer's facility and Generation Resource(s).

The Customer will ensure that the Generation Resource(s), communications equipment, switchgear and metering equipment are accessible to the Company at all times.

If high speed communication is identified as a requirement during the interconnection review to ensure the safety and reliability of the distribution system, the company will work with the customer to leverage that communication equipment to meet the telemetry requirements listed above. Absent an interconnection related communication requirement, the customer can propose a communication pathway sufficient to meet the above capabilities. The Company will review the proposal for sufficiency and compatibility with the Company's dispatch system.