Appendix R

Storage Capacity Form Term Sheet



2023 All-Source RFP



Portland General Electric Company

Non-Binding Indicative Term Sheet for Storage resources Subject to Mutual NDA

Note: The following represents a summary of certain material terms and conditions for Bidders to PGE's 2023 All-Source RFP (RFP) seeking to execute a Storage Capacity Agreement (SCA). This term sheet is tailored for an on-system battery storage resource. To the extent a Bidder would like to propose an off-system or non-battery storage resource, certain terms and conditions will need to be updated (e.g., interconnection and transmission requirements, scheduling requirements, procurement of charging energy, etc.). The following is not an exhaustive list of all material terms, nor does it purport to comprehensively express PGE's expectations for any of the terms herein mentioned. Full-form, definitive terms are set forth in PGE's form SCA issued in connection with the RFP.

Buyer:	Portland General Electric Company
Seller:	[Name of Seller]
Facility:	The [XX] MW _{AC} grid-connected energy storage facility [insert location and description of energy storage facility, and any other relevant identifying details, including technology, e.g., lithium ion], located in in [Name of County] County, in the State of [Name of State].
Guaranteed Storage Capacity:	[XX] MW _{AC} for [XX] hour discharge.
Facility Name plate Capacity:	[XX] MW _{AC}
Duration:	[4] hours
Product(s):	The Product includes the following:
	1. Capacity Attributes: Any current or future attribute, as may be currently defined or otherwise defined in the future, including but not limited to a characteristic, certificate, tag, credit, or accounting construct, associated with the electric charge and discharge capability and capacity of the Facility or the Facility's capability and ability to discharge or curtail energy, including any attribute counted towards any current or future resource adequacy or reserve requirements

	Capacity Attributes are measured in MW. Capacity Attributes do not include: (i) any production tax credits, investment tax credits, or any other tax credits, deductions, or tax benefits associated with the Facility, or (ii) any state, federal, local, or private cash payments, grants, or costs relating in any way to the Facility; 2. Storage Capacity: All rights, products and attributes associated with the maximum dependable operating capability of the Facility to charge, sort and discharge electric energy; and 3. Ancillary Service Attributes: All ancillary services, products and other attributes, defined in Section 3 of the Portland General Electric Company Pro Forma Open Access Transmission Tariff, if any, that may be obtained from or generated by the Facility.	
No Sales to third parties:	Seller shall sell one hundred percent (100%) of the Storage Capacity to Buyer.	
Delivery Term:	No less than fifteen (15) years after the Commercial Operation Date.	
Interconnection Point:	The Facility shall interconnect to [XX substation]. Seller shall be responsible for all costs of interconnecting the Facility to the Interconnection Point.	
Delivery Point:	Interconnection Point.	
Commercial Operation Date (COD):	The date on which the total nameplate storage capacity of the Facility (expressed in MW_{AC}) is fully operational, reliable and available to Buyer, and the Facility is fully interconnected, fully integrated, and synchronized with the transmission system.	
Scheduled Commercial Operation Date:	[Date]. In no event shall the Scheduled Commercial Operation Date be later than December 31, 2027. If the Commercial Operation Date is not achieved on or before the Scheduled Commercial Operation Date, Seller shall pay Delay Damages to PGE from and after the Scheduled Commercial Operation Date up to, but not	



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	including the first to occur of (i) the Commercial Operation Date, or (ii) the Guaranteed Commercial Operation Date.
	"Delay damages" means, for any given day, the product of (a) the Guaranteed Storage Capacity, expressed in MW _{AC} , multiplied by (b) the quotient of (i) the Contract Price in the first contract year (in \$/MW/month) divided by (ii) 30.4
Guaranteed Commercial Operation Date:	The date that is one hundred eighty (180) days after the Scheduled Commercial Operation Date.
	Buyer shall have the right to terminate the SCA if the Commercial Operation Date is not achieved by the Guaranteed Commercial Operation Date and Seller shall pay Buyer damages in the amount of \$200/kW of Nameplate Capacity.
Contract Price:	Fixed monthly capacity payment for the entire Delivery Term equal to [(\$/MW _{AC} -month of Storage Contract Capacity)]. Such payment constitutes the entirety of the amount due to the Seller from Buyer for the Product.
Storage Capacity Test:	Prior to the Commercial Operation Date, Seller shall schedule and complete a storage capacity test. Thereafter, at least once per year, Seller shall schedule and complete a storage capacity test. Buyer may require a storage capacity retest at any time during the Delivery Term. The Parties shall coordinate all storage capacity tests in good faith to minimize the burden to each of the Parties. Buyer may witness all storage capacity tests of the Facility. Buyer shall pay for the Charging Energy used to charge the Facility in connection with the first storage capacity test during any contract year. All other costs related to a storage capacity test, including costs for Charging Energy for subsequent storage capacity tests in the same contract year (unless such subsequent retest is initiated by Buyer), shall be borne by Seller.
Transmission Requirements:	Buyer must be able to designate the Facility as a network resource and Seller must have requested NRIS interconnection for Facility Output. In such case, Buyer will be responsible for all costs associated with the delivery of energy to the PGELOAD.
Charging Energy:	During the Delivery Term, Buyer shall be responsible, at its sole cost, for managing, purchasing, scheduling and delivering all energy necessary to charge the Facility to



	supply its Discharge Request (defined in the Scheduling Procedure).
Control Area Services:	Seller shall procure and pay for all Control Area Services that may be required by its transmission provider(s) or balancing authority area as a condition of interconnection.
	Control Area Services include, but are not limited to, generation imbalance, variable energy resource balancing service and any EIM costs associated with interconnection. Control Area Services do not include ancillary service costs associated with the transmission provider's provision of firm transmission service.
Scheduling of Charging Energy and Discharge Energy:	For each day during the Delivery Term:
	Buyer shall, by 06.00a.m. PPT of the customary WECC Pre-Schedule Day communicate to Seller's pre-schedule desk via an Application Program Interface (API) or as directed by Buyer, the expected charging energy to be delivered to the Facility by Buyer and the amount of energy Seller shall discharge and deliver each hour at the Delivery Point for the delivery day to Buyer.
	The SCA shall include charging and discharging protocols based on the technology and software communication available to the Seller, but at a minimum the Buyer shall communicate intraday adjustments no later than one-hundred and twenty (120) minutes prior to the flow hour.



Storage Capacity Guarantee:	If the Storage Capacity for the Storage Facility is determined during a Storage Capacity Test to be less than the Guaranteed Contract Storage Capacity, Seller shall pay to Buyer as liquidated damages for such deficiency an amount determined by multiplying (i) the number of months since the last Storage Capacity Test (including the month in which the most current Storage Capacity Test was completed) by (ii) the Contract Price (adjusted to \$/MW/month (multiplied by 1,000), multiplied by 125% by (iii) the difference between the Guaranteed Contract Storage Capacity and the Storage Capacity as determined during the most recent Storage Capacity Test until such deficiency is cured. Additionally, it will be an event of default if the Storage Contract Capacity, as determined by the most recent Storage Contract Capacity, as determined by the most recent Storage Contract Capacity, which remains uncured for a period of thirty (30) days as shown by a new Storage Capacity Test.
Actual Round-Trip Efficiency:	The round-trip efficiency for each month is calculated as a percentage, based on the amount of MWhs of energy used to charge the Facility and the amount of MWhs of energy discharged from the Facility, as measured by the Facility meter at the Interconnection Point.
Guaranteed Round-Trip Efficiency:	Eighty five percent (85%) for all contract years during the Delivery Term. It will be an event of default if the Round-Trip Efficiency is less than the Guaranteed Roundtrip Efficiency and such failure continues for [90] days after Seller's receipt of written notice or discovery of such failure.
Guaranteed Round-Trip Efficiency Adjustment:	If during any month during the Delivery Term, the Actual Round-Trip efficiency for such month is less than the Guaranteed Round-Trip Efficiency, the Seller shall pay the Buyer the following amount: (i) the charging energy for the months since the last Storage Capacity Test (including the month in which the most current Storage Capacity Test was completed), multiplied by (ii) the percentage amount by which the Actual Round-Trip Efficiency is less than the Guaranteed Round-Trip Efficiency, multiplied by (iii) the average day-ahead Intercontinental Exchange Mid-C Physical Peak (bilateral) or Mid-C Physical Off-Peak (bilateral) indices, weighted by the count of

	hours in each index during which Charging Energy was supplied by Buyer to the Point of Delivery
Maximum Annual Discharge MWh:	Buyer may discharge a maximum of [MWhs] per year, subject to the Facility Operating Limits and Parameters.
Daily Dispatch Limits:	Full Charging limits (if any): [XX] times per day Full Discharging limits (if any): [XX] times per day Partial Charging limits (if any): [XX] times per day Partial Discharging limits (if any): [XX] times per day
Other Operating Limits and Parameters:	[Seller to describe all applicable operating limits on charging and discharging from the Facility, if any]
Guaranteed Availability:	Seller guarantees the Facility availability shall be no less than [95 %] annually during the Delivery Term. In the event Seller fails to meet the Guaranteed Annual Availability during any two [2] out of three [3] consecutive years during the Delivery Term, Buyer may terminate the SCA.
Guaranteed Availability Adjustment:	If the Facility has Actual Availability in a contract year less than the Guaranteed Availability, then Seller shall pay Buyer liquidated damages in the amount equal to the product of (a) the positive difference between the Guaranteed Availability and the Actual Availability, multiplied by (b) the Storage Capacity during the contract year, multiplied by (c) the Contract Price (adjusted to \$/MW/month), multiplied by (d) twelve (12) months.
Operations and Maintenance:	Seller shall not schedule any non-emergency maintenance that reduces the Facility charging or discharging capability by more than ten percent (10%) during the months of June through September, unless (i) such outage is required to avoid significant and material damage to the Facility, (ii) such maintenance is necessary to maintain equipment warranties and cannot be scheduled outside the months of June through September, (iii) such outage is required in accordance with prudent electrical practices, or (iv) the parties agree otherwise in writing.



	Seller shall provide its outage schedule no later than September 1st of each Contract Year preceding such outage(s).
	The outage schedule for each Contract Year shall not exceed 240 hours.
Progress reporting:	Seller shall provide a monthly report to Buyer that (a) describes the progress towards meeting the Facility development milestones set forth in the SCA; (b) identifies any missed Facility development milestones, including the cause of the delay; and (c) provides a detailed description of Seller's corrective actions to achieve the missed Facility development milestones and all subsequent Facility development milestones by the Guaranteed Commercial Operation Date.
Labor Requirement:	Union labor must be utilized for major construction activities related to the resource and must include a Project Labor Agreement requirement in any related executed engineering, procurement and construction agreements. All project labor must comply with the requirements of House Bill 2021, as applicable. The labor group that is responsible for construction and maintenance of the Facility must have policies in place that are designed to limit or prevent workplace harassment and discrimination. Additionally, such labor group must have policies in place that are designed to promote workplace diversity, equity and inclusion of communities who have been traditionally underrepresented in the renewable 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.
Buyer Conditions Precedent:	Buyer's obligations shall be conditioned and will become effective only upon the occurrence of the each and every of the following conditions:
	(i) receipt of approval of the final shortlist from the Oregon Public Utility Commission, in form and substance satisfactory in Buyer's sole discretion; and
	(ii) written approval of the SCA by Buyer's Board of Directors.

Seller Conditions Precedent:	[Seller to list Conditions Precedent, to the extent any apply]
Security Requirements:	Within ten (10) days after the Effective Date of the SCA, Seller shall deliver development security to Buyer in an amount equal to \$125/kW of Facility nameplate capacity and shall maintain such development security until the Commercial Operation Date.
	On or before the Commercial Operation Date, Seller shall deliver delivery term security to Buyer in an amount equal to \$100/kW of Facility namep late capacity and shall maintain such delivery term security through the end of the Delivery Term. Within five (5) Business Days following any draw by Buyer on the delivery term security, Seller shall replenish the amount drawn such that the delivery term security is restored to the full amount.
	All security shall be in the form of cash or a letter of credit from a Qualified Institution and in a form reasonably acceptable to Buyer.
	"Qualified Institution" means a major U.S. commercial bank or a U.S. branch office of a major foreign commercial bank which is acceptable to PGE, organized under the laws of the United States (or any state or political subdivision thereof) with such bank having shareholders' equity of at least \$10 billion (U.S. Dollars) and a Credit Rating of at least A- by S&P or A1 by Moody's, or an insurance company with assets of \$2 billion or greater, an A.M. Best financial strength rating of an A or greater and authorized to issue surety bonds in the state in which the project will be located. On a case by case basis, PGE will accept banks as Qualified Institutions if they have received an endorsement from an institution that does meet the criteria in the Qualified Institution definition.
Termination Payment:	Upon termination of the SCA in connection with an event of default, the non-defaulting party shall calculate, in a commercially reasonable manner without the obligation of either party to enter into any replacement transaction in order to determine any losses, the termination payment due to such party (each a "Termination Payment").
	If the termination of this Agreement due to a Seller Event of Default occurs before the Commercial Operation Date, then the Termination Payment shall be owed to Buyer and shall

be equal to the amount of the development security, less any Delay Damages paid by Seller.

If the termination of this Agreement due to a Seller event of default occurs after the Commercial Operation Date, then the Termination Payment shall be owed to Buyer and shall be equal to (i) all amounts due and owing to Buyer as of the termination of the SCA plus (ii) the positive amount, if any, equal to (x) the present value of the payments Buyer would be required to make under transactions replacing the SCA minus (y) the present value of the payments Buyer would be required to make for Product under the SCA, in each case for the period from the early termination date through the scheduled end of the Delivery Term and determined by Buyer in a commercially reasonable manner plus (iii) Buyer's Costs less (iv) all amounts due to the Seller under the SCA.

If termination of the SCA is due to a Buyer event of default occurs after the Commercial Operation Date then the Termination Payment shall be owed to Seller and shall equal (i) all amounts due and owing to Seller as of the termination of the SCA (ii) the positive amount, if any, equal to (x) the present value of the payments Seller would receive under the SCA for Product less (y) the present value of the payments Seller would receive for Product under transactions replacing the SCA, in each case for the period from the early termination date through the scheduled end of Delivery Term and determined by Seller in a commercially reasonable manner plus (iii) Seller's Costs less (iv) all amounts due to the Buyer under the SCA as of the date of such termination.

"Costs" means, with respect to the non-defaulting party, the commercially reasonable brokerage fees, commissions, and other similar transaction costs and expenses incurred by the non-defaulting party to a person other than a party in connection with terminating any arrangement pursuant to which it has hedged its obligations under the SCA or in entering into new arrangements to replace the SCA, and all reasonable attorneys' fees and expenses incurred by the non-defaulting party in connection with the termination of the SCA.

Direct Damages

Unless expressly provided in the SCA, a Party's liability shall be limited to direct actual damages only, which direct actual

	damages shall be the sole and exclusive remedy and all other remedies or damages at law or equity are waived. Except as expressly provided in the SCA, neither party shall be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise.
Other Standard Contract Terms to be included in the SCA:	The SCA will include terms and conditions that are usual and customary in transactions of its nature.
Confidentiality:	This Term Sheet and all information exchanged during negotiations of the SCA are confidential, subject to the Non-Disclosure Agreement between Buyer and Seller dated [Date].

