GOVERNMENT OF PUERTO RICO
PUERTO RICO PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU

IN RE: INTERCONNECTION REGULATIONS	**CASE NO.:** NEPR-MI-2019-0009 CEPR-MI-2018-0008 **SUBJECT: LUMA's Motion to Submit Presentation for August 25, 2026 Virtual Stakeholder Workshop**

MOTION TO SUBMIT PRESENTATION

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COME NOW, LUMA ENERGY, LLC and **LUMA ENERGY SERVCO, LLC** (collectively, "LUMA"), through the undersigned legal counsel, and respectfully state and request the following:

I. Relevant Procedural Background

1. On July 13, 2026, the Energy Bureau issued a *Resolution and Order* containing a Revised Preliminary Draft of the Distributed Generation and Microgrid Interconnection Regulation ("Revised Preliminary Draft"). The Energy Bureau scheduled workshops for August 25, 2026 (referred to as Stakeholder Workshop 2) at 9:30 a.m., and September 21, 2026 (referred to as Stakeholder Workshop 3) at 9:30 a.m., and invited stakeholders to submit comments on the Revised Preliminary Draft.

2. On August 19, 2026, the Energy Bureau issued a *Resolution and Order* (the "August 19th Order") providing the agenda for the August 25, 2026 Virtual Stakeholder Workshop. The Energy Bureau ordered LUMA to attend the August 25, 2026 Stakeholder Workshop and to provide a presentation summarizing its comments on certain topics relating to the interconnection of distributed energy resource systems. The Energy Bureau also encouraged LUMA to provide

feedback on other stakeholder comments filed on August 14, 2026, as part of its presentation. The Energy Bureau ordered LUMA to submit a copy of its presentation no later than 2:00 p.m. on August 24, 2026.

3. On August 21, 2026, LUMA filed a *Request for Brief Extension to File Presentation* requesting additional time, until 6:00 p.m. on Monday, August 24, 2026, to submit the presentation ordered by the August 19th Order.

4. On August 21, 2026, the Energy Bureau issued a *Resolution and Order* granting LUMA until 6:00 p.m. on August 24, 2026, to submit the presentation ordered by the August 19th Order.

5. LUMA now files the required presentation in compliance with the Energy Bureau's orders.

II. Submission of Presentation

6. In compliance with the August 19th Order and the extension granted by the Energy Bureau on August 21, 2026, LUMA hereby submits as **Exhibit 1** the presentation for the Virtual Stakeholder Workshop scheduled for August 25, 2026.

WHEREFORE, LUMA respectfully requests this Honorable Energy Bureau to **TAKE NOTICE** of this filing and **ACCEPT** the attached presentation (**Exhibit 1**) in compliance with the August 19th Order and the extension granted on August 21, 2026.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 24th day of August 2026.

We hereby certify that we filed this Motion on this date using the electronic filing system of this Puerto Rico Energy Bureau and that copy of this Motion will be notified to: mvalle@gmlex.net; alexis.rivera@prepa.pr.gov; rcruzfranqui@gmlex.net; nzayas@gmlex.net; agustin.irizarry@upr.edu; javrua@sesapr.org; hrivera@jrsp.pr.gov; contratistas@jrsp.pr.gov;

aconer.pr@gmail.com; John.jordan@nationalpfg.com; pjcleanenergy@gmail.com; cfl@mcvpr.com; mqs@mcvpr.com; gcordero@crmjv.com; Steven.rymsha@sunrun.com; azayas@azeng.net; jberdner@enphaseenergy.com; rbelur@enphaseenergy.com; mrosenfeldt@enphaseenergy.com; gferrer@enphaseenergy.com; kkoch@tesla.com; Andrew.Cote@generac.com; rmoody@cleanpower.com; axelvargas.montanez@gmail.com.

DLA Piper (Puerto Rico) LLC
B-7 Tabonuco St., Suite 1501
Guaynabo, PR 00968
Tel. 787-945-9147
Fax 939-697-6147

/s/ Laura T. Rozas
Laura T. Rozas
RUA Núm. 10,398
Laura.Rozas@us.dlapiper.com

Exhibit 1

Presentation for August 25, 2025, Stakeholder Workshop

LUMA

Interconnection Regulation Stakeholder Workshop

NEPR-MI-2019-0009

August 25, 2026

Agenda

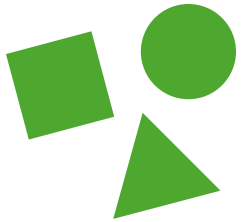
- Overview
- Simplified Process for Interconnection
- Cost Allocation
  - Application
  - Studies
  - Contribution of system upgrade costs
- Meter Socket Adapters

Operational Challenges

- Distributed Energy Resources (DER) use, such as solar, has grown rapidly, and systems are interconnected to a grid that was not originally built to support them
- Many circuits are now overloaded, creating voltage issues for thousands of customers
  - 121+ substations and 145 circuits now operate **above 90%** load capacity
  - 105 circuits exceed **100%** of daytime design capacity
- Thousands of customers report high-voltage problems linked to overloaded feeders
  - Over 25,000 high-voltage customer complaints reviewed;
    - 21,000+ linked to DER-overcapacity feeders
    - **70%** of correlated complaints came from DER customers or neighbors sharing a transformer
  - High DER penetration reduces minimum daytime load, lowering system inertia and stability

Separation of Interconnection & Customer Programs

- Interconnection determines how DER connects to the grid
- Customer programs are statutorily or regulatorily approved programs that allow customers to participate using DER technologies (incentives, compensation, operating rules)
- Separation prevents program rules from interfering with technical interconnection requirements
- Examples of other jurisdictions:
  - California NBT: defines export compensation separately from interconnection
  - Hawaii Smart DER: establishes distinct export/non-export options
  - NY VDER/SIR: bill credits are independent of its Standardized Interconnection Requirements (SIR)



LUMA

Interconnection Regulation Comments

- LUMA's comments* proposed a unified framework that:
  - provides for screening **of projects before injection**, to ensure safety and reliability
  - **technology agnostic,** enabling for integration of new and future technologies
  - maintains **interconnection requirements apart from customer programs**, making technical considerations separate from options on how to operate a project

***LUMA's August 14 comments:** 20260814-MI20190009-Motion-to-Submit-Comments-and-Proposed-Revisions-to-the-Revised-Preliminary-Draft-Distributed-Generation-and-Microgrid-Interconnection-Regulation.pdf
***LUMA's Draft redline:** 20260814-MI20190009-Exhibit-4-Motion-to-Submit-Comments-and-Proposed-Revisions-to-the-Revised-Preliminary-Draft-Distributed-Generation-and-Microgrid-Interconnection-Regulation.pdf

General Comments

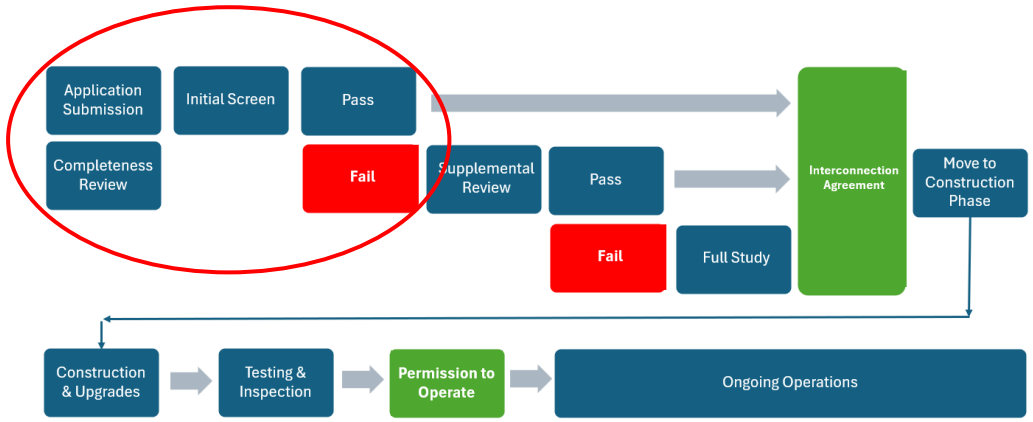
- Use **DER as the umbrella term** for clarity and technology-agnostic regulation
- **EPS Operator must retain authority to disconnect** unsafe DERs
- **Keep interconnection regulation separate** from customer programs (e.g., NEM, community solar, microgrids)
- Maintain **administrative and operational mandates outside the regulation**
- Use **Nameplate Rating** for all technical analyses
- **DERs > 5 MW** should undergo Energy Bureau's review and approval
- A **transition period** is necessary for implementation
- **Queue management must be non-linear**, allowing flexible adjustments with transparency
- **Avoid unfunded, duplicative** administrative mandates (e.g., Ombudsperson, Interconnection Coordinator)

***LUMA's August 14 comments:** 20260814-MI20190009-Motion-to-Submit-Comments-and-Proposed-Revisions-to-the-Revised-Preliminary-Draft-Distributed-Generation-and-Microgrid-Interconnection-Regulation.pdf

LUMA

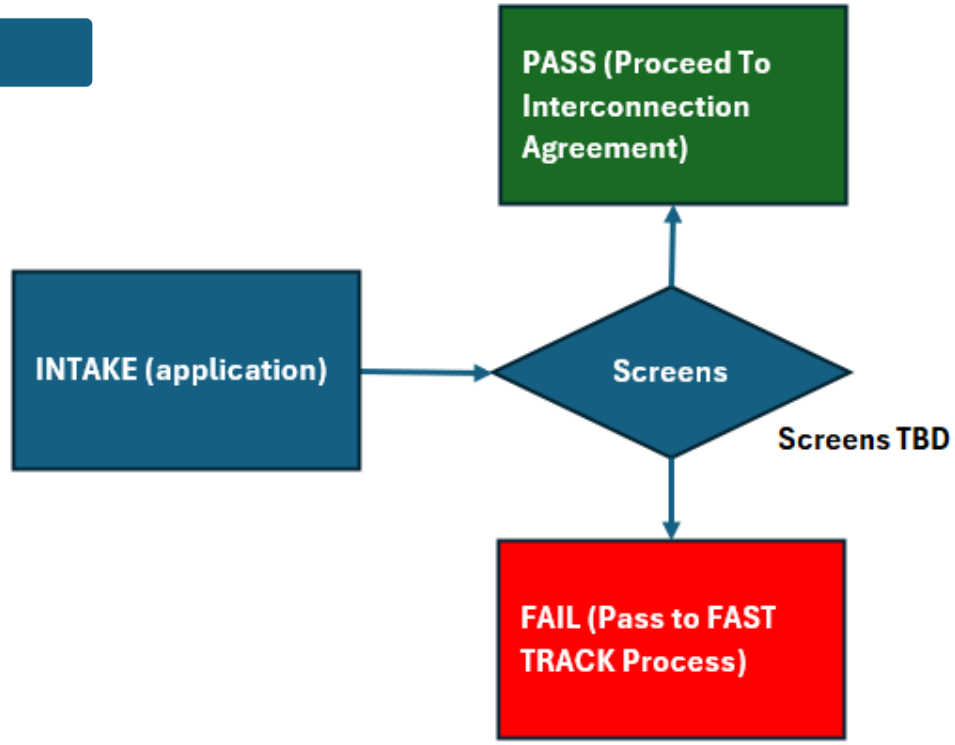
Simplified Interconnection Process

Simplified Interconnection Process



Simplified Uses clean, standardized technical screens to maintain grid reliability without over-complicating paperwork.

- Standardize and speed up interconnection
- Scaled review to project size and risk, simplified is the starting point
- Protect grid reliability and safety while still promoting generator access



Simplified Process

Purpose of the simplified process

- Designed for small, low-impact generators (typically inverter-based DERs under a defined kW threshold)
- Avoids subjecting straightforward, low-risk projects to the same full study process required for large generators
- Reflects the principle that review burden should scale with actual grid impact, not treat every interconnection request identically

How supplemental review is executed (when a project fails initial screens)

- Triggered when the DER doesn't clear one or more fast-track screens (not part of the simplified process, eligibility is determined by the screens in the simplified process to be moved to fast-track process)

Notification

- Gives the utility lead time to assess cumulative DER penetration
- Allows early identification of potential upgrade needs before they become last-minute surprises
- Supports better utility system planning and avoids distort capacity assumptions for other applicants

Prior EPS Operator Approval for Injection/Export

- No DER may inject/export without prior written authorization from the EPS Operator
- Authorization for injection/export will be granted only after the full interconnection process is complete and verification of technical compliance
- Any DER modification requires a new Interconnection Agreement
- Customers are solely responsible for design, installation, and maintenance

Cost Allocation

Study Cost Allocation

- DERs < 25 kW fall in the Simplified Process
- If they fail screens, they are treated as Fast Track DERs and require Supplemental Review.

Screens:

Category	Reason for Supplemental Review
Individual DER-Specific	DER Nameplate Rating exceeds minimum load constraints
	DER causes excessive voltage rise or deviation
	DER causes harmonics, rapid voltage change, or flicker
	DER fault current contribution exceeds device limits
	DER grounding or protection configuration conflicts with feeder requirements
	DER anti-islanding performance insufficient
	DER operating profile incompatible with feeder minimum load windows
System-Level EPS/Feeder	Feeder is saturated due to high DER penetration (>=15% peak load)
	Feeder voltage regulation limits reached or unstable regulator/LTC behavior
	Feeder thermal loading at or near rated limits
	Reverse power flow conditions present or imminent
	Protection coordination issues (relays, fuses, reclosers)
	Feeder is non-radial or part of a networked secondary/grid network
	Feeder operational flexibility constraints (transfer limits)
	Feeder already under DER Cluster Study conditions

Supplemental Review Activities

1. Application Review
Review all interconnection documentation (application form, drawings, certifications, site plans, feeder identification, existing DG penetration).
2. Initial Deliverables
Issue project screening letter and data request list to the applicant.
3. Utility Data Collection
Gather required system data: feeder model, substation model, DG queue, device settings, regulator/capacitor controls, SCADA, load profiles.
4. Model Verification & Validation
Perform GIS checks, validate feeder/substation models, reconcile missing or inconsistent data.
5. Load Scenario Development
Set up minimum load, peak load, and shoulder-load cases for power flow studies.
6. DER Scenario Modeling
Run "DG online," multiple DER combinations, and future queued DER scenarios.
7. Power Flow Impact Analysis
Evaluate thermal overloads, voltage rise/imbalance, reverse power flow, regulator operations.
8. Protection Studies
Study reclosers, fuses, relays, islanding behavior, fault contributions, coordination, fuse-saving, required upgrades.
9. Hosting Capacity & Device Duty Evaluation
Check interrupting ratings, duty limits, and equipment exceedances under DER conditions.
10. Advanced Power Flow / Inverter Behavior Review
Evaluate regulator hunting, capacitor switching, smart inverter functions (Volt-VAR, Volt-Watt).
11. Engineering & Upgrade Planning
Identify required system upgrades (conductors, regulators, reclosers, relays, transformers, inverter settings) and develop cost estimates & responsibility allocations.
12. Final Report & Certification
Prepare executive summary, methodology, assumptions, results, recommendations, cost estimates, inspection notes, independent review, and PE certification if required.

- Cost will vary depending on complexity, location and data gathering efforts

Cost Allocation and Fees

- **Cost allocation gaps** — Existing interconnection frameworks were built around discrete, one-time upgrade costs, but don't cleanly allocate costs for cumulative/cascading upgrades triggered when multiple DERs or mass interconnections.
- **Missing ongoing operational costs** — Interconnection processes are largely designed around a one-time approval event, but DERs create ongoing operational burdens — voltage regulation, protection coordination, bidirectional power flow monitoring — that aren't captured in upfront fees and often fall to utility operations budgets after the fact.
- **Post-interconnection support functions underfunded** — Functions like real-time monitoring, meter data management, dispute resolution, and re-certification after equipment changes for example, built into original cost recovery models, creating a structural gap between what interconnection fees fund and what ongoing DER integration actually requires.
- **Regulatory lag compounds the gap** — Rate cases and tariff structures often take years to catch up to the operational reality of rising DER penetration, so utilities absorb near-term costs of these unaddressed functions while formal cost-recovery mechanisms are still being developed.

Examples of Costs to Contemplate for Fee Development

- Intake and logging each application (any outside the portal work)
- Verifying customer/account/billing
- Checking equipment certification
- Reviewing the sworn declaration and orientation
- Routing
- Billing and collecting
- Correspondence to the customer (pre/during/post application support), including emails, documents, orientations, and meetings.
- Scheduling the field inspection/witness
- Recording inspection and test results into the customer's file and translating a pass into the formal written authorization letter
- Drafting and countersigning the interconnection agreement and net metering participation agreement, then filing the executed copies
- Updating the meter/billing system to reflect net metering status once authorization is granted, and coordinating the physical meter swap with metering services
- Tracking statutory/regulatory timelines (e.g., the 30-day net-metering enablement window that applied post-María)
- Handling appeals
- Responding to regulatory inquiries
- Reconciling and analytics

Meter Socket Adapters

LUMA's Responsibilities

LUMA responsibility under OMA (Annex I and Annex IX):

- Provide customer billing and collection services, ensuring proper metering, metering infrastructure, billing accuracy, and secure and compliant handling of metering data
- As part of its general responsibility for operating and maintaining the T&D system, LUMA must:
  - Maintain metering devices in working condition.
  - Identify and report malfunctioning meters.
  - Ensure compliance with system performance standards when managing metering assets.
- Ensure safety, security, and environmental compliance.

LUMA responsibility per "Reglamento Complementario al Código Eléctrico Nacional para la Instalación de Conductores y Equipo Eléctrico" (Article I - O)*:

- Safety in installation. **Only Utility may authorize changes to the meter.**
- Authority to **install, maintain, inspect, and certify** the meter.
- Responsible for **sealing** the meter and its accessories to prevent unauthorized tampering.
- Inspect, replace, or relocate the meter whenever needed for safety and accuracy

*Reglamento Complementario al Código Eléctrico Nacional para la Instalación de Conductores y Equipo Eléctrico, Núm. 5676: https://ece.uprm.edu/~lorama/Reglamento%20Complementario.pdf

LUMA's Responsibilities

LUMA's responsibility as per "Reglamento Términos y Condiciones Generales para el Suministro de Energía Eléctrica"*

- **Customers and all other non-Authority personnel** are strictly prohibited from:
  - Operating
  - Manipulating
  - Altering
  - Intervening any component of the measurement system, including: meters, conductors, transformers, seals and sealing rings, and any other device forming part of the Authority's installation
- Unauthorized handling is not permitted under any circumstances

*Reglamento de Términos y Condiciones Generales para el Suministro de Energía Eléctrica, Núm. 7982: https://transicion2016.pr.gov/Agencias/169/Informe%20de%20Reglamento%20y%20Normas/7982.pdf

Meter Socket Adapters (MSAs)

Key utility standards, safety, and customer-experience are required

Installations must meet utility standards, ensure customer/technician safety, and maintain full meter functionality (reading, communication, remote connect/disconnect). Specific to installs in services 120/240 V, meters forms 1S or 2S

Responsibilities for installation, equipment faults, and inspections must be clearly defined

Processes must include LUMA for certification/authorization/notification of installations, for example installation of specialized lock rings

Requires additional deployment of LUMA meter technicians. Increase in resources means added funding requirements to avoid subsidization by ratepayers

LUMA


People First.
Safety Always.
LUMA