



# **Net Energy Metering Guidelines**

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## NET ENERGY METERING (NEM) GUIDELINES

Net Energy Metering (NEM) measures the difference between the electricity supplied from the electric grid and the electricity generated on the Customer's premises and delivered back to the electric grid or net energy recorded at the service point. All grid-tied solar Photovoltaic (PV) systems in the LADWP service territory, whether participating in NEM or not, are required to comply with LADWP interconnection requirements.

NEM participation is governed by the NEM Service Rider. If electricity supplied by LADWP is more than or equal to the electricity generated by the customer over the billing period, the customer shall be billed for the net energy supplied under the customer's current applicable rate. As applicable, customers may choose to participate in the standard rate or time-of-use rate.

If electricity supplied by LADWP is less than the electricity generated by the customer's Solar PV System over the billing period, a credit for the excess energy will be applied to a customer's balance. Credit balances will only be applied to the bill associated with the meter that measured the excess energy. LADWP will apply any credit balance to charges under each subsequent bill except taxes and minimum charges until no further adjustment is due to the customer. If a credit balance remains at the time when the customer terminates service, the balance will automatically be adjusted to zero and the customer shall be owed no further compensation for excess generation. Information on LADWP's rate ordinances and service riders is available at [www.ladwp.com/electricrates](http://www.ladwp.com/electricrates).

### 1.0 NEM Eligibility and Limitations

**Solar PV Systems must meet the following requirements to be considered for eligibility:**

- **System Size – Net Energy Metering (NEM) is limited to Solar PV Systems less than or equal to 1 MW- AC<sup>CEC</sup>. Systems outside of this range are NOT eligible for NEM** and will be placed on the appropriate Parallel Generation

electric rate, either Schedule CG-2 or CG-3.

- Customer owns and operates a permanent Solar PV System that is located on the Customer's premises and is operating in parallel to LADWP's electric system to offset part or all of the Customer's own electricity requirements. The final determination of the applicability of the NEM Service Rider resides solely with LADWP.
- Any energy generated by the Solar PV System must be either utilized on Site by the Customer or delivered to LADWP in exchange for a credit on the Customer's bill in accordance with the NEM Service Rider. Energy cannot be sold to any other entities.
- Customers with the following service rates are eligible for the NEM Service Rider: Schedule R-1; Schedule A-1; Schedule A-2; and Schedule A-3.
- Customers on any rate other than the R-1A Residential rate are urged to request a rate analysis to make sure they understand that installation of the Solar PV System may result in a rate change. This change may have financial impacts that require consideration prior to installation. Customers may request a rate analysis from their Account Manager or by contacting the rates hotline at [rates@ladwp.com](mailto:rates@ladwp.com) or 213-367-4718.

## **1.1. NEM Equipment Leasing**

Leasing a Solar PV System can be comparable to system ownership in some cases, allowing the Customer to participate in NEM. If the Customer owns the premises or is a long-term Tenant Customer, they may lease the system from a third-party provided that lease follows these Guidelines.

The equipment lease shall provide for the following:

1. A minimum lease term of at least 10 years.
2. The equipment lease provides lessee with an ownership option by the end of the lease term.

3. The equipment lease payments may not be based on energy production from the equipment, which could be interpreted as the sale of electricity. The lease may include escalator or reduction clauses unrelated to energy production. The sale of energy by anyone other than LADWP is prohibited.

To participate in the NEM with a leased Solar PV System, the lessor and the lessee must complete and submit the Solar Lease Compliance Form (SLCF) along with the equipment lease. The SLCF will serve as an attestation that the lessor and the lessee will comply with these Guidelines. If the equipment lease is modified or amended, the parties shall submit a copy of the lease to the LADWP Solar Program Manager along with a newly executed SLCF.

LADWP reserves the right to audit and review executed equipment leases held between lessor and lessee who have applied to NEM. The determination of acceptability of the equipment lease agreement is at the sole discretion of LADWP. Any review will determine if the lease complies with the NEM Guidelines. If the executed lease is not in compliance with the NEM Guidelines as attested in the SLCF, LADWP may take the following actions:

1. Not allow interconnection to LADWP's grid by locking out the Solar PV System's AC disconnect switch.
2. Remove Customer from the NEM Service Rider.
3. Charge \$300.00 for disconnect/reconnect fee as applicable.

## **1.2. NEM Eligibility for Tenant Customers**

Tenant Customers may be eligible for NEM provided that they have an electrically distinct Solar PV System connected to their electric meter. The Tenant Customer shall sign the applicable Interconnection Agreement. If the owner of the real property at the leased or rented service address also has responsibility to design, construct, own, operate, or maintain the Solar PV System or any other connected equipment, both the Tenant Customer and the owner of the associated real property shall sign the applicable Interconnection Agreement. In cases where all costs associated with the LADWP's

interconnection of the Solar PV System have not previously been paid, the Tenant Customer shall be responsible for the interconnection cost.

Tenant Customer must provide LADWP with a copy of the rental agreement (or property lease.) To be eligible for NEM, the rental agreement/property lease must provide Tenant Customer with all rights to receive energy from the Solar PV System; and rent payments may not be based on energy production from the solar PV equipment, which could be interpreted as the sale of electricity. Rent payments may not be, in any way, tied to the per kilowatt-hour rate LADWP charges its ratepayers, or established in any other manner that could be interpreted as sale of energy. The sale of energy by anyone other than LADWP is prohibited.

To participate in NEM, Tenant Customers and associated property owners must complete and submit the Tenant Customer Compliance Form (TENCF) along with the rental agreement (or amended rental agreement if the original rental agreement is amended). The TENCF will serve as an attestation that the Tenant Customer and property owner will comply with these Guidelines.

### **1.3. NEM Interconnection Process**

LADWP has discontinued the Solar Incentive Program. In order to participate in NEM, customers must complete an application on the Solar Automated Meter Spot website at [www.ladwp.com/nem](http://www.ladwp.com/nem) to obtain an Interconnection Work Request Number (WR#). Solar Projects less than 10 kW-AC<sup>CEC</sup> that do not involve a service upgrade or battery backup may be eligible to receive the fast tracked solar process as set forth on the Solar Automated Meter Spot website.

#### **1.3.1. Request for Inspection**

Once the Solar PV System is constructed and the permit has been finalized, City of Los Angeles Department of Building and Safety (LADBS) will release the Project to LADWP for solar inspection and meter installation. The solar inspection and meter installation is coordinated by the Connection Center. Customers may contact the Connection Center

at (213) 367-6937 with questions on the interconnection process or to inquire about the status of their Project interconnection.

### 1.3.2. Solar PV System Inspections

**The separate inspections that are required before the PV generating system can be Placed in Service are:**

1. LADBS Permit Inspection
2. LADWP Electric Service Representative (ESR) Inspection (for systems greater than or equal to 10 kW-AC<sup>CEC</sup> and some special cases less than 10 kW-AC<sup>CEC</sup>)
3. LADWP Solar Inspection

**Solar PV Systems may not be operated and may be locked until all inspections are completed, the Customer signs an interconnection agreement (when applicable), and a net meter has been installed.** A locked system shall only be unlocked by the LADWP net meter installer, at which time the system can be Placed in Service and operated.

Systems that are not in compliance with the LADWP Electric Service Requirements, local ordinances, or applicable electrical codes and standards will fail the LADWP solar inspection.

### 1.3.3. Interconnection Contact Information

#### **LADWP Connection Center**

Call (213) EMPOWER or (213) 367-6937

#### **LADWP ESR Inspection**

Customers can locate the ESR for their region by calling the LADWP Customer Connection Center or by using the **Find the Right Person** tool:

[www.ladwp.com/findtherightperson](http://www.ladwp.com/findtherightperson).

## 2.0 Installation & Interconnection Requirements

- All systems must be installed and operated in conformance with the system manufacturer's specifications, applicable electrical codes and standards, LADWP Electric Service Requirements and the Interconnection Agreement. LADWP's Electric Service Requirements Manual can be found online at [www.ladwp.com/codes](http://www.ladwp.com/codes). Systems may be self-installed by the customer or installed by a licensed contractor/installer.
- All systems must have any necessary permits from LADBS.
- All Solar PV Systems must be equipped with a disconnect device as required by the LADWP Electric Service Requirements. Performance Meters and devices used to disconnect the Solar PV System shall be readily accessible and located in accordance with LADWP's Electric Service Requirements.
- Every solar installation is subject to inspection by the LADWP Solar Inspector, while more complex solar installations will require additional review and inspection by the LADWP Distribution Engineer and/or ESR to ensure compliance with the LADWP Electric Service Requirements.
- Upon submission of a completed and signed Interconnection Agreement, an LADWP Service Planning staff member will be assigned to work with the customer to ensure proper interconnection to the LADWP grid. It is imperative that applicants and their contractors work closely with their assigned Distribution Engineer and ESR to ensure the efficient, safe, and successful installation of their solar Projects.
- All grid-interconnected Energy Storage Systems will require preliminary review and inspection by an LADWP Distribution Engineer and ESR. Contact the Connection Center at (213) 367-6937 for more information.

### 2.1. Interconnection Agreement

Customers with a solar PV generation facility and/or Energy Storage System, where one or both has a capacity greater than 10 kW-AC<sup>CEC</sup>, are required to complete an



Interconnection Agreement with LADWP before the generation facility and/or storage may be interconnected to LADWP's electric system. The LADWP customer of record must sign the Interconnection Agreement. If the owner of the real property at the leased or rented service address also has responsibility to design, construct, own, operate, or maintain the solar PV generation facility and/or Energy Storage System, or any other connected equipment, both the Tenant Customer and the owner of the associated real property shall sign the applicable Interconnection Agreement. The names of business customers and real property owners must match State of California Secretary of State records for an active business.

Customers with a solar PV generation facility and/or Energy Storage System, where one or both has a capacity greater than 10 kW-AC<sup>CEC</sup> but less than or equal to 30 kW-AC<sup>CEC</sup>, must complete, sign, and submit a Customer-Owned Solar-Powered Electrical Generation Facility and/or Energy Storage System Interconnection Agreement (Short-Form IA). The Short-Form IA can be found at LADWP's solar website.

Customers with Solar PV Systems greater than 30 kW-AC<sup>CEC</sup> must complete the Long-Form Solar-Powered Customer Generation Interconnection Agreement (Long-Form IA). The Long-Form IA can be obtained by calling the ESD Distribution Systems Engineering Co-generation Coordinator at **213-367-2726**. A single line electrical diagram must be submitted with the Long-Form IA, in order for a LADWP Distribution Engineer to be assigned to assist in this more detailed interconnection process. In addition, an engineer must be assigned and the single line diagram approved before an Electrical Service Representative can assist with meter and disconnect spotting.

## **2.2. Metering**

NEM measures the flow of electricity in two directions. LADWP provides the necessary net meter. In the event a customer installation provides atypical metering requirements, however, the customer shall be responsible for LADWP's expense of purchasing and installing a meter that is able to measure electricity flow in two directions. If an additional meter or meters are installed, the net meter configuration shall yield a result identical to that of a single meter.

The solar equipment must be connected to the customer's billing meter, which will be the only meter that is converted to a net meter. Net meters are digital and capable of wireless communication with LADWP to accommodate billing. Installations less than or equal to 30 kW-AC<sup>CEC</sup> are also required to install an electromechanical meter having either an analog or liquid crystal display if they do not have performance metering built into their inverter. The meter must be rated for outdoor use.

For certain Solar PV Systems, the installation of digital Performance meters will be required per LADWP's Electric Service Requirements Manual. Therefore, certain Solar PV Systems will have two digital meters capable of wireless communication with LADWP. The socket for the Performance Meter must be a separate 4-pin meter socket that must be installed outdoors in close proximity to the LADWP billing meter and the required AC disconnect device. The meter socket shall be located so that the centerline of the meter is at a height of between 4 feet and 6 feet 3 inches.

Customers may not opt-out of the use of digital meters with wireless communication capabilities.

Meters are the property of LADWP and may NOT be moved to another site. They are registered to a specific parcel of property. Refer to the Electric Service Requirements Manual for additional metering requirements.

### 3.0 Definitions

**Customer:** The LADWP customer of record whose electric service account is associated with the billing meter interconnected to the Solar PV System. The Customer is also referred to as the host customer.

**Energy Storage System (ESS):** A system capable of storing energy produced by an energy source for later use as electrical energy and/or to provide customer backup electrical energy during a utility power disturbance.

**Performance Meter:** A meter capable of measuring the total energy produced by the solar PV generation facility in kilowatt-hours or Watt-hours.

**Photovoltaic (PV):** A technology using a semiconductor that converts light directly into electricity.

**Placed in Service:** A Photovoltaic system, having passed all inspections, with a net meter installed, authorized to produce electricity.

**Project:** A generating system and/or Energy Storage System installed at a Site for which an LADWP customer seeks approval to operate the same in parallel with LADWP's electric system to serve the electrical needs of all real and personal property located at the Site.

**Site:** One physical address encompassing the locations of all Solar PV System and/or Energy Storage System installations serving the electrical needs of all real and personal property located at that physical address, where a Site is a single parcel of real property plus any improvements located at that physical address.

**Solar Photovoltaic (PV) System:** All PV equipment furnished and installed to create a complete, working electrical generating system, including solar PV modules, associated electrical conduit and wiring, electrical sub panels and controls, electrical equipment and meters, structural mounting and supports, and all other components considered to be Balance of System (BOS) to the PV generating facility. The complete system will be from the PV modules to the Performance Meter, if applicable.

**Tenant Customer:** LADWP's customer of record at a leased or rented service address.