Consolidated Edison Company of New York: Guide to ESS Interconnection

Introduction

This guide is for Con Edison customers who are considering installing or upgrading an Energy Storage System (ESS) up to 5 MW that is or will be connected in parallel to Con Edison’s electric distribution system. For projects above 5 MW, please contact dgexpert@coned.com for additional guidance. For projects of emergency storage as backup, please apply through Con Edison Project Center and contact your Con Edison Energy Services Representative at www.coned.com/es for more information. Please also review Con Edison specification EO-2113 and Con Edison Electric Tariff General Rule 8.1 for emergency storage projects.

This guide is intended to provide high level details of the electric interconnection process, typical steps, challenges, and technical solutions associated with ESS projects. This guide is not a design or technical specification.

Interconnections of all types of technology up to 5 MW are subject to the New York State Standardized Interconnection Requirements (SIR). All developers and applicants should read the SIR as the SIR will take precedence. This document is aligned to the April 2018 version of the SIR, but updates to the SIR will be integrated as quickly as possible.

Section 1: About Con Edison’s Grid

Con Edison provides electric service to 3.4 million customers in New York City and portions of Westchester County. Electricity is delivered through approximately 94,000 miles of underground cable, and almost 37,000 miles of overhead cable.

The distribution system supplies power to the Company’s low voltage network customers and radial customers from area substations at 4kV, 13kV, 27kV, and 33kV primary service voltage levels. The majority of customers receive Low Tension (low voltage) service directly at the distribution system secondary voltage levels of 120/208V; 120/240V or 265/460V, while a small percentage of High Tension (high voltage) customers receive power at primary service voltage levels.

There are two types of electric distribution grid systems, radial grids and network grids.

**Radial Grids** traditionally have a single high voltage cable, often referred to as a feeder, sending energy from the substation to numerous distribution transformers tapped at various points along its length. The distribution transformers step the voltage down to low-voltage electricity and typically serve between 1-16 customers. These systems are called radial grids because the substation and feeders resemble a hub with spokes. Cables
and transformers on radial grids are often above ground, seen predominantly in less urban areas, such as Staten Island or Westchester.

For reliability Con Edison uses a type of radial grid called an “auto-loop”. An auto-loop typically has two feeders, two additional backup feeders, and automatic switches at various points along the feeder run. In this configuration, feeder faults are rapidly isolated, with a portion of the affected customers being restored with one of the aforementioned backup feeders.

**Network grids** have multiple primary feeders supplying several network transformers tied together in parallel on the secondary side to provide energy into a low voltage grid (area network type) or a local building bus (spot network) where the consumer is connected. Thousands of low voltage customers are served off the low voltage grid of an area network. Cables and transformers on network grids are typically below ground and are used in more densely populated areas. Network grids are used extensively throughout Manhattan, Brooklyn, Queens, and the Bronx, in addition to several small network grid areas in Staten Island and Westchester.

The two grid configurations have different characteristics. Network grids are considered more reliable than radial grids as there are redundant sources of backup power in case of failures on the grid. Additionally, with cables and transformers mostly underground, network grids tend to be less prone to outages resulting from severe weather conditions than above ground radial grids. Network grids are more complex than radial grids due to the increased number of system components and the redundant cabling.

Spot networks are a special class of network grids where one or multiple transformers are dedicated to a single, large energy consuming building like a skyscraper. A spot network is essentially a small network grid that is implemented for a single large user.
Both the radial and network grids are represented in Figure 1, below:

![Electric Distribution System](image)

**Figure 1 - Electric Distribution System**

**Section 2: Technical Interconnection Considerations for ESS**

Con Edison manages the interconnection of ESS generation less than 5 MW in capacity under the New York State Standardized Interconnection Requirements (SIR). For projects greater than 5 MW, Con Edison’s timeline may be longer than that associated with complying with the SIR, depending on the complexity of the project.

If the ESS is not properly designed to export power, there can be undesirable system impacts, such as voltage fluctuation or the repetitive operation of network protector relays, particularly for systems in excess of 50 kW. The technical considerations for accommodating large ESS systems will vary depending upon the type of electrical distribution service (e.g. radial, network) at the point of interconnection as well as surrounding loads.

**Radial Service**

Interconnecting exporting ESS generation to a radial service can be limited by the capacity of the local service, the primary feeder, the capability of a unit substation to accept reverse power flow, and switch and re-closer issues. The methods of resolving these constraints vary in complexity and cost.
Network Service

With network service, if one of the primary feeders supplying a portion of the network grid’s transformer were to experience an outage, the parallel connected secondary grid will try to provide power into the dead feeder. For this reason, these transformers are designed with an automatic switch, known as a network protector, which will open when energy feeds back from the low voltage bus toward the high-voltage feeder outage. This is the same condition as when a large ESS provides more power into the area network grid or spot network than there is load to serve. While Con Edison’s dense network grid system typically has enough load to “soak up” the exported power, the electric system can be adversely affected by the back-feed of power.

For applicants connecting to Con Edison’s secondary grid, the engineering review will determine if the service cable to the site is adequate to carry the export, in addition to determining if export into the network will cause network protector operation. If the service cable is not rated for either the expected ESS import or export capacity, the customer will need to upgrade the existing service or put in additional service. For those projects where local network protectors will be impacted, Con Edison has a solution called “Adaptive Network Protector (NWP) Relay Settings”, where modifications are made to the relays of nearby transformers.

In some cases with inverter-based ESS, Con Edison will also need to rely on the inverter itself to help regulate voltage. This generally requires the inverter to consume VARs at a fixed power factor, or better still utilize the “Advanced” inverter features as outlined in the draft IEE1547 specification (Volt-VAR and Volt-Watt Characteristics) with settings recommended by Con Edison. When the inverter is required to prevent overvoltage, the function shall be “supervised” by a utility grade overvoltage relay. Additionally, Con Edison requires communications be established to any inverter managing voltage by consuming VARs to ensure voltage is maintained within ANSI limits.

Spot or Isolated Networks

For customers on dedicated spot or isolated networks, the opening of a network protector would result in a loss of power to the customer. Con Edison’s traditional approach to maintain reliability for customers wanting to install ESS on a spot or isolated network would be to require a reverse power relay that would prevent export. Since 2012, Con Edison has begun offering solutions to enable export across network protector relays through pilot programs, making it the only utility in the nation to allow export on network service. This solution is called “Communications Aided Tripping” (CAT) and it involves the following:

1.) Reducing sensitivity on local network protectors – reprogramming network protectors to an “insensitive” mode that allows back-feed of up to 50% of the transformer rating.
2.) Supervisory Control and Data Acquisition (SCADA) and anti-islanding – installing equipment to monitor the performance of the ESS generator and the network protectors
and allow for remote tripping in the event of system contingencies and/or outage risk to the customer.

The solutions offered will be tailored to the specific service configurations. Costs for CAT will be project specific and determined by your CPM but very generally can be on the order of $100,000\(^1\). Generally speaking, the reduced sensitivity solution on local network protector relays is more suitable for interconnections to the low voltage grid, whereas CAT is more suitable for isolated or spot networks.

**Equipment Details**

The following list of equipment may be required for Con Edison ESS projects, particularly those using CAT. The exact requirements and specifications will be determined during engineering review and site visits.

The customer is responsible for the cost of procuring and installing this equipment, regardless of whether the customer or Con Edison is installing it.

- **Supervisory Control and Data Acquisition (SCADA):** This equipment collects data from the customer’s ESS and Con Edison’s network protectors. In addition to providing communications, SCADA also allows for remote operations and controls of the network protectors.

- **Anti-islanding device:** This equipment is sometimes required, based on a case-by-case assessment of ESS system size and the type of service to the customer. The purpose of this device is to ensure that ESS export does not cause a customer outage if one or more feeders go out of service.

- **DNP3 Inverter or DNP3-enabled communications relay:** DNP3 communications protocols are required in order to ensure reliable, consistent communications between the customers’ ESS and the local network protectors. This can be achieved by either installing inverters that “speak” DNP3, or by installing a DNP3 enabled communications relay. Translators from Modbus to DNP3 will not be allowed as Con Edison has determined that they have not performed adequately in the field. The customer is responsible for providing either the inverter or the relay.

- **Network protector micro-processor relay and associated cabling:** A device to remotely monitor the operations of the network protector. This is required to enable two-way communications. Con Edison network protectors are typically installed with a standard non-communicating relay and must be upgraded for participation in this program. Con Edison will install the relays and any required cables.

- **Conduit/cable:** Cable and conduit will be run between the communications and protective equipment. The customer will be required to provide their own

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\(^1\) This is an estimate only. Project costs can be higher or lower depending on project specifics. Customers should not rely on this number for before they receive actual costs and written design approval from Con Edison.
communications cable, specified by Con Edison. The customer will make the connections and bring the cable to Con Edison, who will then connect the ESS to the bus to complete the installation. Conduit may be required, depending on conditions at the site.

**Section 3: Interconnection Process**

Con Edison follows the New York State SIR to review and approve all ESS under 5 MW. Prior to application submittal, please read the SIR thoroughly to familiarize yourself with the application process and timelines, technical and operating requirements, and required contracts and forms.

Other resources to review in advance of application submission include Rider R which is the net metering and value stack tariff for Con Edison (discussed further in Section 4), General Rule 20 Standby Service, and Service Classification 11 (Buyback Service). Applicants will need to register with Power Clerk prior to application submission. The Small DG portal should be used for Interconnection requests up to 50kW. The Large DG portal should be used for Interconnection requests greater than 50kW up to 5MW. For Hybrid Projects, please use export capability instead of total combined nameplate capacity to determine which portal to use (e.g. a project with 40 kW of storage and 40 kW solar qualifies as a small system of less than 50 kW as long as the net export capabilities do not exceed 50 kW).

An applicant proposing a Hybrid Project or stand-alone ESS shall complete and submit Appendix K (found in Power Clerk) as part of the application package.

The owner of an existing DG facility may apply to add an ESS by submitting completed Appendix K to Con Edison through Power Clerk (in the Large DG portal, start with the “New – All Other Requests, click here!” button).

For all projects involving ESS, the utility shall review the application and respond within defined time frames: for systems 50 kW or less, the utility has ten Business days upon receipt of the original application submittal to determine if the application is complete, whether the project is eligible for expedited processing and whether or not it is approved for interconnection if eligible for expedited processing. The utility shall notify the applicant in writing of its findings upon review of the application. For systems form 50 kW to 5 MW that are proposed to be installed in underground secondary network areas, the applicant should be aware that a Coordinated Electric System Interconnection Review (CESIR) may be required.

Following interconnection of a Hybrid Project or a stand-alone ESS, the owner may apply to the utility to change the operating characteristics of the storage component. To initiate review, the owner shall submit through Power Clerk a completed Appendix K of the SIR specifying the proposed new operating characteristics.
Applicants who plan on operating their battery storage device as part of a Microgrid should expect that additional documentation, engineering review time and a more detailed testing plan will typically be required.

To provide additional guidance in preparing materials for ESS interconnection applications, Con Edison has prepared checklists for three-line diagrams. These checklists provide Con Edison requirements for system diagrams, as well as consistency in review. These checklists can be found on the Con Edison DG website.

Examples of some of the features that should be called out on the three-line diagram are shown in Figure 2 below:

![Diagram of requirements for an acceptable drawing](image)

**Figure 2 – Required elements of an acceptable drawing.**

Applications are initiated through Power Clerk, our online application portal for distributed generation systems. The Small DG portal should be used for Interconnection requests up to 50kW. The Large DG portal should be used for Interconnection requests from 50kW to 5MW. On the portal, once all required information is entered/attached and submitted, the application
will be routed to the appropriate Con Edison Energy Services personnel and the application review will begin. At this time, the SIR process is different for small (< 50 kW) and large (>= 50 kW) projects. Interconnection application process for large projects is shown on Figure 3.

The general steps for SIR include:

1.) Applicant submits a Pre-Application Report request (Optional)
2.) Con Edison returns the Pre-Application Report
3.) Applicant submits an application
4.) Con Edison reviews the application for completeness
5.) Con Edison performs preliminary screening analysis
   a. If application passes the six preliminary screens, Applicant proceeds to construction
6.) Applicant selects additional review/meeting option (Note: this can be an iterative process)
a. Preliminary Screening analysis results meeting to explain the screening process and identify any simple changes that could lead to the project being approved.

b. Supplemental Screening Analysis, at customer choice, to perform three additional screens, which if passed progress the application to construction.

c. CESIR, at customer choice, to perform in depth analysis of the proposed DG system to determine the system changes and cost estimates needed to accommodate interconnection. CESIR costs generally range up to $20,000 for inverter-based systems and $27,000 for rotating machines. Cost is dependent upon size, operation, type of electric distribution service, type of equipment, etc. Numbers may vary slightly for high-tension service but are in a similar range.

d. Withdraw/cancel – the applicant has the option to withdraw or cancel their application at any time.

7.) Con Edison performs requested review
8.) If applicable, Applicant commits to construction costs and provides full payment within 120 business days
9.) Applicant and Con Edison complete their respective constructions
10.) Con Edison performs field verification testing
11.) If applicable, Applicant addresses any issues emerging from the field verification testing and Con Edison issues final acceptance letter
12.) Con Edison performs project closeout

Taking the following steps prior to and during the application submission will help speed up the review:

- Include account (14 digit) and meter (7 digit) numbers
- Include customer email address
- Include the Con Edison service information in all drawings
- Include additional existing on-site DER in the application
- Enter the rating per inverter and number of inverters (if used)
- Ensure consistency in all forms and documents

When an application is ready for submission, the applicant should upload all documents listed in Appendix F of the SIR. The applicant should also include any additional rate application forms (Form G).

Additional technical information may be required if the application progresses to a CESIR.
Note on failed inspections:
If an Applicant disagrees with a failed inspection, they should send an email to the CPM, engineer, and dl-DGinspectionappeal@coned.com. This email goes to Energy Services and Distribution Engineering senior managers. The email subject line should include the case number and “Appeal of Verification Test”. The email should describe in detail, as related to the verification test checklist, why the Applicant disagrees with the results of the inspection. Include any documentation or photographs that are necessary. In addition, upload the email to the case in Power Clerk.

The Applicant will receive an acknowledgement of the appeal in 2 business days via email, and Con Edison will respond with a proposed resolution and rationale within 10 business days.

Note on ESS projects that require an outage to interconnect their project:
If the project requires that the site have an outage in order to interconnect, please work with the CPM to coordinate that. It is important to note that Con Edison crews will be available at no charge during regular business hours: Monday-Friday, 7:00am – 3:00pm excluding holidays. However, if requesting an outage outside of these hours, or if the outage extends beyond 3:00pm, the Applicant will be responsible for the cost of time outside working hours, including overtime.

Note on placement of customer equipment relative to revenue metering compartment:
The revenue metering compartments represent the dividing point between Customer equipment and Con Edison’s system. Customer equipment is not to be installed, nor are any customer connections to be made, inside Con Edison’s metering compartment.

Roles and Responsibilities
Throughout the interconnection process, applicants will interact with a number of Con Edison personnel with various roles and responsibilities, including:

- **Energy Services Customer Project Manager (CPM)** – Primary point of contact for all communication, scheduling of inspections and overall project process oversight
- **Distribution Engineering** – Electrical interconnection experts for Con Edison who perform the technical document reviews, perform the Supplemental Review and CESIR studies, attend technical meetings, witness verification testing and perform the final inspection.
- **Distributed Generation Ombudsman** – An additional layer of assistance in understanding the Con Edison interconnection process, tariff interpretations, and new policy implications which can be leveraged even prior to commencing your ESS projects. The Ombudsman’s office can also provide assistance on any unresolved project-specific issues.
- **Customer Care Group** – Handles billing and post-installation billing questions
Section 4: Rates and Service Classifications

The service classifications for customers typically installing ESS include the following. Con Edison assigns the service class based on the customer characteristics:

- **Service Class 1 (SC1) – Residential/Religious**: This rate is for residential customers. It is volumetric billing based on energy usage (kWh). SC1 customers have no demand charge.

- **Service Class 2 (SC2) – General – Small**: This rate is for small commercial customers with demand less than 10kW. It is also volumetric billing based on energy usage (kWh). SC2 customers have no demand charge.

- **Service Class 8 (SC8) – Multiple Dwellings**: This rate is for master-metered residential customers. It includes energy usage (kWh) billing with a variable demand charge (kW), adjusted monthly based on the highest 30 minutes of demand.

- **Service Class 9 (SC9) – General Large**: This rate is for large commercial customers with demand 10kW or larger. It is energy usage (kWh) billing with a variable demand charge (kW), adjusted monthly based on the highest 30 minutes of demand.

Value of Distributed Energy Resource (VDER)

On March 9, 2017 the New York State Public Service Commission (PSC) released an order to transition away from net energy metering (NEM) to VDER.

**Phase 1 NEM (Only if paired with another Phase 1 NEM eligible technology)**

- Residential customers (SC1) with less than 25kW and Small Commercial customers (SC2) with less than 2 MW who have ESS installed after March 10, 2017 but before January 1, 2020 will receive Phase 1 NEM compensation. Phase 1 NEM is similar to Grandfathered NEM with the following differences: a project’s compensation under Phase 1 NEM lasts for 20 years.

Phase 1 NEM is the current compensation mechanism for SC1 and SC2 onsite customers with less than 25 kW. A limited number of ESS projects for customers other service classifications (e.g., SC 8 or 9) that received system design approval and paid a 25% deposit toward interconnection upgrade costs (if any) by July 17, 2017 are eligible for Phase 1 NEM compensation.

**Value Stack**

Unlike traditional NEM, VDER Value Stack compensation is not based only on volumetric metering; the energy produced and exported to the grid will not be credited on the customer’s utility bill at the same kWh rate at which energy is consumed. Instead, the Value Stack consists of six potential components and converts energy production into monetary credits that vary by location and time.
Value Stack credits are based on export into the utility grid. Stand-Alone ESS generation that instantaneously reduces customer load will reduce the customer bill; generation that exceeds a customer’s load behind the meter is exported to the grid and credited according to the Value Stack rates. For more information about VDER, including a description of all of the components of the Value Stack, please visit our Private Generation Tariffs webpage.

**Figure 4 - Example Demand Customer Value Stack bill**

**Standby Pilot Rate Program (Rider Q):** A pilot rate program that allows options for Distributed Generation customers to choose their own contract demand, select a different As-Used demand period and receive credits for consistent export of power via the buy-back (SC-11) rate. Please review the tariff for further details including participation requirements. New Distributed Generation customers applying for the Standby Pilot Rate Program should indicate it on their interconnection application in PowerClerk and fill out Form G accordingly during the interconnection process.

**Electric Standby Service (General Rule 20):** Standby Service is available to replace or supplement the energy ordinarily generated on customer premises. If the customer’s generation is unable to supply their maximum connected load, called “contract demand,” Con Edison ensures the appropriate infrastructure is in place to meet that maximum. Contract demand
charges are used for the maintenance and repair of the equipment that is in place to provide standby service and generally represent the most significant part of a standby bill under General Rule 20. Please note that there can be substantial surcharges if the customer sets the contract demand level inaccurately. Other charges include customer charges, as-used demand charges, metering charges, associated MACs, and an O&M charge for additional equipment installed on the Con Edison system to accommodate the generator.

**SC-11 Electric Buy-Back** - A customer who would like to sell energy to Con Edison may take service under SC-11 Buy-Back Service. The payment rate for energy will be based on the applicable wholesale rate, which is the Locational Based Marginal Price (LBMP) set by the New York Independent System Operator (NYISO). Customers delivering energy at the secondary distribution level will have the LBMP increased by a factor of 1.066 to account for line losses. Under this service agreement, the customer will pay a customer charge and a contract demand charge based on the facilities in place to deliver energy.

**Section 5: ESS Paired with Other Technologies**

Table 1 incorporates the necessary interconnection elements for Energy Storage Projects. When pairing ESS with other technologies, the technical considerations generally become more complex than can be covered in this guide. However, the following are some frequently designed configurations along with the typical interconnection solution required to accommodate them. For general questions about a concept or potential project, developers can contact the DG Ombudsman’s office. For more specific information on configuration and feasibility, a formal interconnection request should be submitted.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Power Clerk</th>
<th>Project Center</th>
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<tbody>
<tr>
<td>PV + Storage as Back-up (not grid parallel)</td>
<td>Solar application **</td>
<td>Emergency Back-up generator application</td>
</tr>
<tr>
<td>Storage in Parallel with Grid</td>
<td>Battery Energy Storage application</td>
<td>None</td>
</tr>
<tr>
<td>New PV + New Storage</td>
<td>I Hybrid Application combining solar and energy storage</td>
<td>None</td>
</tr>
<tr>
<td>New Storage + Existing PV</td>
<td>Battery Energy Storage application</td>
<td>None</td>
</tr>
<tr>
<td>New PV + Existing Storage</td>
<td>Solar application</td>
<td>None</td>
</tr>
</tbody>
</table>

** Check “Yes” for “Will this DG project include energy storage?”

*Table 1 – Interconnection applications for ESS*
1. Residential Solar system with emergency storage only as a backup – When a residential solar system is paired with an onsite storage system (ESS) used solely for backup, the solar application should be submitted as a normal PV interconnection request in Power Clerk. The emergency back-up generator application (lead-acid, lithium ion, etc.) should be submitted in Project Center.

2. Standalone Energy storage operated in parallel with the grid – Inverter-based energy storage systems can export to the grid and receive compensation under buy-back service. An application should be submitted for the energy storage system by selecting ‘Battery Energy Storage’. The inverter specifications should be entered for the battery in discharge mode. In addition, the technical specifications for charging the battery must be specified (peak kW/kVA required to charge) in the scope of work statement, and if these exceed the local service, upgrades to the existing service may be required. Effective June 18, 2018 the initial application in PowerClerk will require battery information in order to complete SIR Appendix K “Energy Storage System (ESS) Application Requirements / System Operating Characteristics / Market Participation.”

3. Hybrid generation systems (multiple distributed generation types which will all operate in parallel with the grid) – For applications for an ESS paired with one DG technology (e.g. Battery and Solar PV), submit one application via Power Clerk. Start this application by choosing “New – All Other Requests, click here!” from the PowerClerk home screen. Then choose the “Apply to interconnect a Hybrid System, i.e. a DG system that includes an Energy Storage System (ESS)” option and hit submit.” This will then initiate a project and move you to a status where you are able to complete the “Hybrid Technology Interconnection Application.” As with the previous bullet, PowerClerk will include the required questions in order to complete SIR Appendix K. A single combined system diagram will likely be required to enable engineering evaluation.²

Additional technologies that receive credits under different rate structures other than the ESS to be installed, behind a single Con Edison meter, will require specialized metering and/or relaying schemes. Con Edison must be made aware of all DG technologies on site at the time of your initial request to add ESS in order to avoid billing problems. Figure 5-7 shows the different acceptable configurations for hybrid system of ESS with PV. In addition, New York Public Service Commission approved a three-meter configuration for hybrid system with ESS in the Ordering Clause No. 2 in the New York Public Service Commission’s April 19, 2018 Order

² If the ESS is paired with more than one DG technology, separate applications should be submitted for each generator (e.g., one for solar, one for energy storage, and one for a fuel cell), referencing the master case numbers of other systems in the “Project Overview” field. These parallel projects should be highlighted to the Customer Project Manager as well.
Modifying Standardized Interconnection Requirements in the subject proceedings. For additional guidance on metering requirements for hybrid system with ESS, please contact Distributed Generation group at dgexpert@coned.com.

Residential and Small Commercial (SC1 and SC2) customers are eligible to pair grid-parallel energy storage with solar and take service under the Phase 1 NEM tariff.

Figure 5 - Exclusive ESS charge from PV configuration

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³ Cases 18-E-0081 et al., In the Matter of Proposed Model Tariff for Compensation of a Hybrid Energy Storage System and Distributed Generation System, Order Modifying Standardized Interconnection Requirements (issued April 19, 2018) (“Order”), p. 27. It refers to January 31, 2018 ITWG Meeting Notes about metering hybrid ESS, available at http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/def2bf0a236b946f85257f71006ae98e/$FILE/95160166.docx/ITWG%20Mtg%20Notes%201-31-18.docx.
Figure 6 – PV export only configuration.

Figure 7 – Separate metering configuration
Section 6: Contacts for Further Questions

If you have questions about your specific project application, please contact your Energy Services Customer Project Manager (CPM). You will receive their contact information when you submit your application in Power Clerk.

For general questions regarding DG interconnection, please contact the Distributed Generation group at dgexpert@coned.com.

For residential billing questions, please contact netmetering@coned.com or 212-780-6600. For large/commercial customers please contact dl-CCGNet-metering@coned.com.

In addition, New York State Department of Public Service and the New York State Energy Research and Development Authority have dedicated “DG Ombudsmen” who can help answer questions. Their contact information is available here.

Section 7: Definitions and Acronyms

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<td>DNP3</td>
<td>Distributed Network Protocol</td>
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