

## **HOME BACKUP POWER INSTALLATIONS: THIRD-PARTY PLAN REVIEW AND INSPECTION PROCESS AND GUIDELINES**

Effective September 1, 2025, qualified third-party professionals may perform plan review and inspections for *home backup power installations* serving homes that are connected at 600 volts or less (see [Senate Bill 1202](#), 89<sup>th</sup> Legislature). A *home backup power installation*, per §247.0025 of the *Local Government Code*, is defined as:

*“an electric generating facility, an energy storage facility, a standby system, and any associated infrastructure and equipment intended to provide electrical power to a one- or two-family dwelling, regardless of whether the facility or system is capable of participating in a wholesale electric market, that is connected at 600 volts or less.”*

Therefore, for the purposes of this bill, the following items for one- and two-family dwellings (*only*) are considered to be *home backup power installations* eligible for review and/or inspection by third-party individuals registered with the Electrical Inspections department:

- Generators and associated transfer switches.
- Energy Storage Systems (ESS) and associated equipment.

The following items **are not** considered *home backup power installations* and are therefore not applicable for third-party review and/or inspection:

- Solar “PV” systems that do not include ESS installations (*solar only installations may utilize the SolarAPP+ program, see form [CE-1410](#)*).
- Fuel gas connections and piping.
- Electric service and/or panelboard repairs, replacements, upgrades, etc.
- The installation, replacement, or extension of feeders and/or branch circuits; except those directly associated with, and necessary for, the operation of the electric service and/or panelboard.

An electrical permit and passing inspection performed by the City of Houston Electrical Inspections department is required for all electric service releases to CenterPoint Energy. *Please note that the City of Houston will not provide an electric service release to CenterPoint Energy without first performing a passing inspection.*

A plumbing permit and passing inspection performed by the City of Houston Plumbing Inspections department is required for all fuel gas inspections and gas service releases to CenterPoint Energy. *Please note that the City of Houston will not provide a gas service release to CenterPoint Energy without first performing a passing inspection.*

**NOTE: Properties located within the floodplain must contact the Floodplain Management Office at 832-394-8854 or [fmo@houstontx.gov](mailto:fmo@houstontx.gov) prior to third-party review/inspection and installation.**

### **Persons Authorized for Third-Party Review and/or Inspection**

In accordance with §247.0025(c) of the *Local Government Code*, the following people are authorized to perform third-party plan review and/or inspections for *home backup power installations*:

- A Master Electrician, as described by §1305.153, *Occupations Code*, that holds a current master electrician license under Subchapter D, Chapter 1305 of the *Occupations Code*.

- An Electrical Inspector, as defined in §1305.002, *Occupations Code*, that holds a current electrical inspector certification from either the International Association of Electrical Inspectors (IAEI) or International Code Council (ICC).
- An Engineer, licensed under Chapter 1001, *Occupations Code*.

Third-party individuals must first register with the Electrical Inspections section for credential verification before performing or submitting any third-party plan reviews or inspections.

### Third-Party Applications for a Home Backup Power Installation Permit

To make an application for a *home backup power installation* permit when a third-party plan review is performed, a *building permit application* must be completed via [iPermits](#) and the following information and documents, as applicable, must be provided:

- A Declaration In Support of Building Permit Application (For Individual Owners) is required to be uploaded, see form [CE-1380](#). The document must be completed and signed by the property owner and will be validated against HCAD records.
- Completed and notarized Declaration of Compliance and Liability form:
  - [CE-1417](#), Third-Party Plan Review of Home Backup Power Installations
  - [CE-1418](#), Third-Party Inspections of Home Backup Power Installations (for permit final)
- A complete submittal package containing all required plans, specifications, and documents specified below, and includes the third-party report of review for the project.

### Completeness Package

- A complete plan set that includes a cover sheet, index of plans, code analysis listing the applicable [Houston Construction Code](#): 2021 IRC or 2021 IBC (not both), 2023 NEC, 2021 IFC, 2021 IEBC, 2021 IECC, 2021 UMC, 2021 UPC, 2021 ISPSC and associated Houston Amendments, Code Words, and HFD Life Safety Bureau Standards, and all associated electrical and structural plans sheets.
- A site or plot plan drawn to scale based on a survey of the property and showing the size and location of new construction and existing structures showing distances to all property/lot lines. In addition, easements, setbacks, exterior equipment and pads, generators, batteries, solar panels, etc., shall be shown. There shall be no encroachment into easements by the new scope of work.
- Documents marked preliminary or not for construction are unacceptable. All documents within the submitted review package shall be ready for construction, and shall not include alternates, options or preliminary designs. Manufacturer's specification sheets and installation instructions (with approved logos and labeling) for every listed component and appurtenance to be installed, e.g., batteries, generators, solar panels, etc.
- Floodplain status and, if applicable, permits approved by the Floodplain Management Office.

### Generator and/or Battery Systems

- Electrical plans shall be prepared and signed/sealed by either a licensed electrician or a Texas engineer and show compliance with NEC Article 690, and the panels shall be listed for compliance with UL Standard 1703 and include, but not be limited to the following:
  - Grounding Points
  - Conductor Insulation
  - Over Current Protection
  - Conductor Size & Type
  - Labels & Markings
  - Charge Controllers

- Disconnect Size & Type
  - Inverter Size & Type
  - Battery(ies) Size/Type & Weight
  - One-Line Diagram
  - Panel Layout
  - Access Pathway Layout
  - Mounting Structure & Anchors
- An electrical one-line diagram drawing that includes: 1) service conductors, meters, service disconnects, and panelboard(s); 2) raceway and wire sizes, as applicable; 3) labels for all proposed equipment.
  - Main breaker side tap conductors, minimum 6#AWG or #4ALUM.
  - Specification sheets with approved logos for all equipment showing listing by a recognized testing laboratory.
  - Nationally Recognized Testing Laboratory (NRTL) notice of authorization to apply NRTL Label for all equipment (All equipment must be listed and labeled by a NRTL). Please note that a list of approved listing agencies are found here: [OSHA Current List of NRTL's](#). No other listing agencies are approved for testing, listing, and labeling equipment for *home backup power installations*.
  - Labeling and placards as required in NEC Article 690, 691 & Article 705: Interconnect Electrical Power Production Systems.
    - NOTE:** Compliance with NEC Article 705, "Interconnected Electrical Power Production Systems", must be incorporated into the electrical design.
  - Calculations/Tabulations to show how the system was sized. The electrical load calculation for the electrical service shall comply with Article 220 of the NEC and include all loads imposed on the electric service, including the load necessary to charge any batteries or other energy storage equipment.

### Solar PV Panels (associated with batteries/energy storage)

- Roof plan drawn to scale with 1) the layout of solar panels and existing roof penetrations, chimneys, vents, etc., and 2) railing & mounting locations clearly identified (relative to roof rafters) with a cross-section anchorage detail with anchorage specifications clearly identified.
- Structural letters, calculations, plans, details, manufacturer installation instructions for rails, racks, attachments, etc., nationally recognized certifications, and other related documents designed and sealed by a Texas Professional Engineer (PE) to address the added loads of the product used as well as anchorage of panels to the existing structure, as well as detailed structural design of new foundations or structures located at grade. **NOTE:** Where the manufacturer cut/installation sheets document options, the engineer or installer shall designate the specific code compliant product(s) to be installed.
  - A sealed Texas engineers' letter shall be provided indicating the existing structure with the proposed solar system complying with applicable building code structural requirements, or Texas engineer sealed, signed and dated plans shall identify additional framing needed for compliance with minimum structural design provisions of Houston *Residential* code. Reference code edition and include [CE-1110](#).
- Solar "PV" system design shall show compliance with the appropriate minimum wind speed design for the specific address as specified by Table R301.2(1) of the Houston *Residential Code* (or Section 1609.3 if constructed to the Houston *Building Code*) and include a printout of the [ASCE Hazard Tool](#) results. *All roofing and equipment assemblies must comply with the appropriate minimum wind design for the appropriate code applicable.*
- The structural design shall be engineered in accordance with Texas Engineering Practice Act regulations and as specifically required by the Houston Building Official, whichever is more restrictive. All engineered sheets shall be sealed, signed and dated by a Texas licensed engineer.

**Permit “Final” for Home Backup Power Installations with Third-Party Inspection**

To close/final a *home backup power installation* permit, submit the third-party declaration form ([CE-1418](#)) with all relevant inspection notes/reports created as part of the inspection. The Electrical Inspections department will process, and issue all permit finals within three (3) business days of receipt, per §247.0025(i).

**Contact Information**

Electrical Plan Review	832-394-8820	<a href="mailto:onestop.planreview@houstontx.gov">onestop.planreview@houstontx.gov</a>
Electrical Inspections	832-394-8860	<a href="mailto:residential.pwrbackupsystems@houstontx.gov">residential.pwrbackupsystems@houstontx.gov</a>
Permits	832-394-8899	<a href="mailto:permits_office@houstontx.gov">permits_office@houstontx.gov</a>
Plumbing Inspections	832-394-8870	<a href="mailto:hpcplumbingsection@houstontx.gov">hpcplumbingsection@houstontx.gov</a>
Code Development		<a href="mailto:code.development@houstontx.gov">code.development@houstontx.gov</a>