



SOLAR PANEL HANDOUT 2024

Commercial Use (2021 IBC)

Residential Use (2021 IRC)

Owner: _____

Address of Property: _____

City, State: _____

Installation Company: _____

Contact Name: _____

Phone Number : _____

Please complete the following sections:

A. Detailed explanation of the use of the structure (Section 1.1 Kane County Zoning Ordinance)
(height of the Solar Panel/s) (highest point) _____

B. Type of Solar System Being Proposed:

1. Photovoltaic

Type of Inverter:

_____ Grid Tie Inverter: PV System tied directly to the electrical grid (Remote Disconnect Required for Fire Personnel)

_____ Off Grid Inverter: PV System is stand alone or off electrical grid (Remote Disconnect Required)

_____ On/Off Grid Inverter: PV is tied to the electrical grid and has battery backup (Remote Disconnect Required)

2. Thermal: _____

C. Solar System Wattage:

1. Number of Solar Panels _____

2. DC Watts per Solar Panel _____

3. Number _____ X DC Watts _____ = _____ Total Watt

D. The Location of Solar Panel System:

1. _____ Ground Mounted (Provide a copy of the site plan showing the distances to all buildings, the set-backs to all property lines, and the location of well and septic)
2. _____ Roof Mounted (On the building plan, show the location where the panels will be installed on the roof-following the latest edition of International Fire Code requirements)

REQUIRED SUBMITTALS AT TIME OF APPLICATION:

1. Building Permit Application
2. Complete set of building plans for all structures to be erected on the property (stamped/sealed by an Illinois licensed Architect or Structural Engineer)-include complete drawings and specifications of all new and existing conditions as follows:
 - a. Sealed structural layouts, foundations, sections, and calculations for the Solar Panel system
 - b. Provide a copy of the complete cut-sheets of the system to be installed.
 - c. Provide wiring diagrams of the system showing the interior/exterior locations of the automatic disconnect for COM ED and the remote disconnect for fire department. These disconnects are to be marked per the 2020 NEC requirements. Indicate the locations of the plaques and directories required per the 2020 NEC requirements (Article 690 and 705)
 - d. Indicate if the system contains an automatic disconnect if the grid system loses power. If the system contains batteries it will have to have a remote disconnect, accessible by the fire department, to prevent back-feeds to the rest of the electrical system during an emergency
 - e. Provide a floor plan of the location the electrical panel/s will be installed in the structure or a utility room
 - f. Provide the location of the new wiring for the panels. Indicate whether the wiring is on the exterior or interior of the structure and that it will be installed per the 2020 NEC
 - g. Does this installation contain a storage battery system? If it does, supply the installation requirements for the batteries and the location of the batteries per the 2021 IBC/IRC
3. Plat of survey of the property-including all lot lines, building setbacks, existing structures, parking layouts, landscaping plan/privacy fence, septic tank & field location, well location, and general grading
4. For a roof mounted system, provide a review of the existing structure, the solar panels, and the panel anchorage by a State of Illinois licensed architect or structural engineer. This review is to be based on the requirements of the 2021 IBC / 2021 IRC (which every is applicable) (“Structural Calcs”)
5. Provide a copy of the COMED Interconnect Agreement approval (email)
6. Provide a letter from the servicing fire department that they have reviewed and approved the installation of the system per their ordinances. The fire department should also give their approval of any required remote disconnects. **NOTE: The properties that are located in the Marywood Fire District, please submit the City Of Aurora Solar Form (attached)**
7. Solar Panel Handout 2024 form-completed

City of Aurora Solar Handout

(In Lieu of Fire Letter)

Applicable Building codes are as follows:

2015 INTERNATIONAL RESIDENTIAL CODE

2018 INTL ENERGY CONSERVATION CODE

2015 INTL SOLAR ENERGY PROVISIONS CODE

2015 INTERNATIONAL BUILDING CODE

2014 NATIONAL ELECTRICAL CODE

2015 INTERNATIONAL FIRE CODE

COMPLETE BUILDING PERMIT SUBMITTAL

COMPONENTS OF A COMPLETE PERMIT APPLICATION SUBMITTAL ARE INDICATED BELOW

- A. Completed Permit application.
- B. Installation will require drawings stamped and signed (wet or digital) by design professional for electrical and structural drawings.
- C. Provide two sets of highlighted cut sheets for all equipment designated in design professional's drawings.
- D. Provide verification that service disconnect for PV equipment will meet the requirements of NEC 110.9 Interrupting Rating and 690.17 Disconnect Type.
- E. Provide grounding information per manufacturer's installation requirements in accordance with NEC 110.3 Examination, Identification, Installation and use of Equipment and 690.41 System Grounding.
- F. Two sets of rail/racking system manufacturer's specifications and method of attachment.
- G. Provide proper labeling per manufacturer's installation instructions.
- H. Three sets of one-line diagrams.
- I. Three sets of roof plans indicating locations of panels, equipment and clearances. To include building and wall sections along with details describing the construction.
- J. Analysis of age of existing roof material and structural loads is required.
- K. Structural plans and calculations may be required.
- L. Documentation of disconnection of the system also required.
- M. General and Electrical Contractors licensed and registered with Aurora is required.
- N. Solar installation checklist attached. Please complete and provide at time of submittal.

City of Aurora Solar Handout

(In Lieu of Fire Letter)

Solar Panel – PV Checklist

This checklist must be completed and provided at time of submittal

Residential Installation _____ Commercial Installation _____

Two copies of inverter manufacturer's specifications _____

Two copies of module manufacturer's specifications _____

Two copies of rail/racking system manufacturer's specifications and method of attachment _____

Type of roof covering Asphalt _____ EPDM _____ Steel _____ Other _____

Number of roofing layers currently _____

Estimated date of last roofing installation _____

Type of roof framing wood frame _____ steel _____ bar joist _____ wood truss _____ other _____

Size and spacing of roof structural elements _____

Two copies of attachment details to structure _____

Does the proposed equipment installation cause the roof load assembly to exceed the maximum requirement of 10 psf per the IRC Yes _____ No _____ or to exceed the maximum requirement of 20 psf per the IBC Yes _____ No _____

Number of modules to be installed _____

Where will modules be installed roof _____ accessory structure _____

Site plan attached indicating installation location on property. Plan must also include modules, inverter(s), combiner boxes, all AC & DC disconnects, utility disconnect and meter(s), and service panelboard

Provide proper labeling per manufacturer's installation instructions.

Two copies of one-line diagrams _____

Connection to utility grid supply side connection _____ load side connection _____

Panelboard ampere rating _____ amps main breaker _____ amps backfeed breaker _____ amps

System configuration positive ground _____ negative ground _____ ungrounded _____

Are batteries being installed Yes _____ No _____

THIRD PARTY INSPECTION REPORT of completed installation is required prior to final inspection approval.

****This document should be provided by contractor and produced by either an Illinois Licensed Design Professional (Architect or SE) or an independent Certified Solar Inspection Company (covering all structural and electrical components)****

Date _____ Contact Name (please print) _____

Signature _____ Email _____

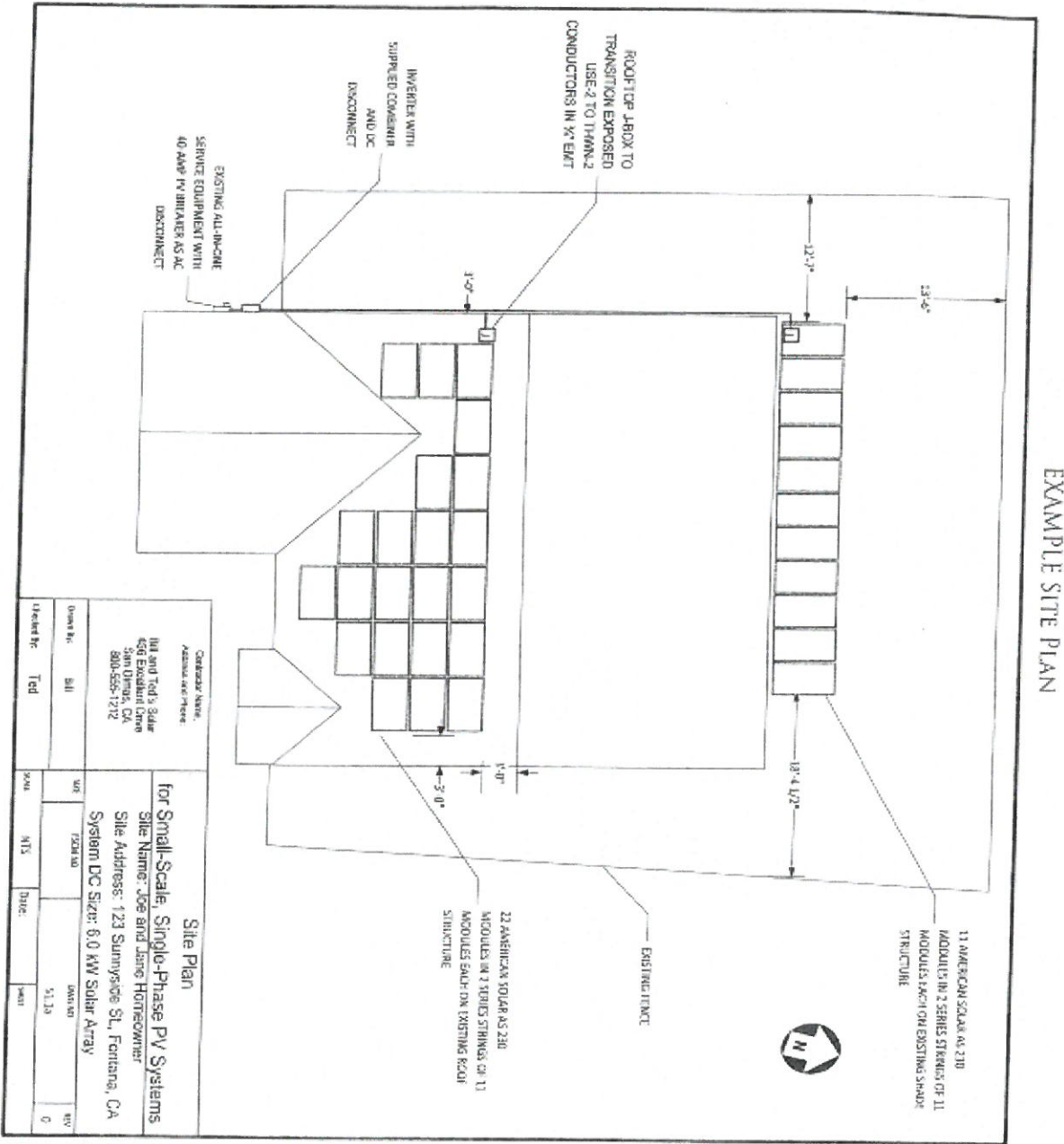
Please include any additional contact emails for project _____

CLEARANCE REQUIREMENTS

Residential – Please make sure to comply with 2015 IFC 605.11 for Solar Photovoltaic systems in use group R3
 Commercial – Please make sure to comply with 2015 IFC 605.11.1.3 for Solar Photovoltaic Systems in use groups other than R3
 Utility Structures – Detached, nonhabitable Group U (as defined by 312 of the 2015 IBC) structures need not comply as long as they are either open sided without walls, or have interiors completely open to structure (ie no drywall ceilings or concealed spaces).

RESOURCE A

SUBMITTAL DIAGRAM TEMPLATES



SOLAR AMERICA BOARD FOR CODES AND STANDARDS REPORT: EXPEDITED PERMIT PROCESS FOR PV SYSTEMS

2015 INTERNATIONAL SOLAR ENERGY PROVISIONS™

RESOURCE-5