



**AGENDA ITEM EXECUTIVE SUMMARY**

**Agenda Item Number: 4.C**

<b>Title:</b>	Recommendation to Approve an Ordinance to Replace Existing City Code 13.08.315 titled “Interconnection Services for On-Site Generation Facilities” with a new “City of St. Charles Customer-Owned Generating Facilities Interconnection Policy” in Accordance with the Newly Enacted State of Illinois “Climate and Equitable Jobs Act”.
<b>Presenter:</b>	Paul Hopkins

**Meeting:** Government Services Committee

**Date:** February 28, 2022

Proposed Cost: \$-0-

Budgeted Amount: \$-0-

Not Budgeted:

**Executive Summary** *(if not budgeted please explain):*

The new Illinois Climate and Equitable Jobs Act requires Co-Op and Municipal Electric Utilities to have their municipal codes written or adjusted to comply with the Act’s requirements. Portions of the Act address customer rights to install renewable energy generation that is connected to a utility’s infrastructure distribution grid, which is defined as an “interconnection”, and defines eligibility to interconnect; applicable fees; technical requirements to connect to and protect our Electric Utility distribution system infrastructure and any associated costs; insurance requirements; generation facility installation testing; inspections; and Utility right of access to physical interconnection locations. The Act also requires Co-Op and Municipal Electric Utilities to be completely in compliance by March 14, 2022, which is 180 days from the effective date of the Act. The attached Facilities Interconnection Policy is specific to St. Charles and meets all requirements of the new law.

**Attachments** *(please list):*

- \*Proposed City of St. Charles Customer-Owned Generating Facilities Interconnection Ordinance
- \*Existing Ordinance Language
- \*Solar Installation Diagram and Permit

**Recommendation/Suggested Action** *(briefly explain):*

Recommendation to Approve an Ordinance to Replace Existing City Code 13.08.315 titled “Interconnection Services for On-Site Generation Facilities” with a new “City of St. Charles Customer-Owned Generating Facilities Interconnection Policy” in Accordance with the Newly Enacted State of Illinois “Climate and Equitable Jobs Act”.

**City of St. Charles, Illinois**  
**Ordinance No. \_\_\_\_\_**

**An Ordinance Amending Title 13 “Public Utilities,”  
Chapter 13.08 “Electricity,” Section 13.08.315, “Interconnection Services  
for On-Site Generation Facilities” of the St. Charles Municipal Code**

WHEREAS, The new Illinois Climate and Equitable Jobs Act requires Co-Op and Municipal Electric Utilities to have their municipal codes written or adjusted to comply with the Act’s requirements;

WHEREAS, Portions of the Act address customer rights to install renewable energy generation that is connected to a utility’s infrastructure distribution grid, which is defined as an “interconnection”, and defines eligibility to interconnect; applicable fees; technical requirements to connect to and protect our Electric Utility distribution system infrastructure and any associated costs; insurance requirements; generation facility installation testing; inspections; and Utility right of access to physical interconnection locations;

WHEREAS, The Act also requires Co-Op and Municipal Electric Utilities to be completely in compliance by March 14, 2022, which is 180 days from the effective date of the Act.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ST. CHARLES, KANE AND DUPAGE COUNTIES, ILLINOIS, AS FOLLOWS:

SECTION ONE: That Title 13, “Public Utilities,” Chapter 13.08 “Electricity”, “Section 13.08.315, “Interconnection Services for On-Site Generation Facilities” of the St. Charles Municipal Code, be and is hereby amended by deleting the same and substituting the following therefore:

**13.08.315 Interconnection Services for On-Site Generation Facilities**

Section 1: St. Charles Municipal Electric Utility (SCMEU) shall make available, upon request, interconnection services to any customer that meets the required guidelines. Interconnection services in this policy refers to on-site generating facilities (as defined in the Customer Self-Generation Net Metering Policy) connected to the SCMEU electric distribution system in a manner that will allow excess electricity generated by the eligible on-site generating facility to be safely delivered onto the SCMEU electric distribution system.

Section 2: Guidelines for interconnecting to the utility system are as follows;

- a. Only generating facilities that have been approved by the Public Works Manager of Electric Services shall be interconnected with the SCMEU electric distribution system.

- b. All interconnections shall comply with codes established by National Electrical Code (NEC), National Electrical Safety Code (NESC), Institute of Electrical and Electronics Engineers (IEEE), and Underwriters Laboratories (UL) as they may be amended from time to time.
- c. Construction and development of generating facilities is required to follow all applicable building codes, permitting processes, and zoning rules.
- d. SCMEU is under no obligation to purchase energy supplied to the utility under this standard. This does not preclude the customer meeting applicable standards that would allow the customer to supply power onto the SCMEU distribution system and receive credit for such energy under City of St. Charles' Customer Self-Generation Net Metering Policy or the Public Utility Regulatory Policies Act (PURPA).
- e. SCMEU may require periodic testing of systems. All test reports shall be submitted to the SCMEU Engineering Department after completion of the testing.
- f. SCMEU may charge reasonable fees associated with the implementation and application of this policy.

Section 3: The terms and conditions for any and all such interconnections are set forth in the attached Customer-Owned Facilities Interconnection Agreement, which may be reasonably adapted by SCMEU staff from time to time in implementing this policy and the Customer Self-Generation Net Metering Policy.

Section 4: SCMEU staff shall develop such documents as needed to implement this policy from time to time.

### **Customer-Owned Generating FACILITIES INTERCONNECTION AGREEMENT**

This Agreement, ("**Agreement**") is entered into by and between the St. Charles Municipal Electric Utility, ("**Utility**") and \_\_\_\_\_ ("**Customer**"). Customer and Utility are referenced in this Agreement collectively as "**Parties**" and individually as "**Party**."

#### **Recitals**

WHEREAS, the St. Charles Municipal Electric Utility (SCMEU) is a municipality-owned electric utility engaged in the retail sale of electricity in the state of Illinois;

WHEREAS, the interconnection Customer is proposing to install, own, and operate an electric generating facility, or is proposing a generating capacity addition to an existing generating facility that qualifies under the SCMEU's Customer Self-Generation

Interconnection Policy adopted March 7, 2022 consistent with the Electric Service Application which includes the proposed interconnection connection and the Building and Code Permit form completed by the interconnection Customer on ( filed \_\_\_\_\_ date).

### **Agreement**

NOW, THEREFORE, in consideration of the covenants and promises herein, the Parties mutually agree as follows:

#### **Article I Scope and Limitation of Agreement**

- 1.1 **Scope of Agreement.** This Agreement governs the terms and conditions under which the Customer's generating facility will interconnect with, and operate in parallel with, the distribution system. Terms used in this Agreement and not otherwise defined shall have the respective meaning given to them in the SCMEU Customer Self-Generation Interconnection Policy.
- 1.2 **Eligibility.** Interconnection to the electric system shall be granted only to new or existing Customers in good standing under SCMEU's terms, conditions, rules, regulations, and provisions for electric service. The Interconnection Agreement shall be between the Customer who owns a generating facility and SCMEU.
- 1.3 **Request.** A Customer desiring to interconnect a qualifying generating facility must permit the installation of the facility, or modifications of an existing facility, through the City's Building and Code Enforcement Division. All permit application documents, which must also include an Interconnection Request Application Form and an Electric Service Application Form, must be permitted and processed through the City's Building and Code Enforcement Division which will then distribute documents and plans to SCMEU and other appropriate divisions for review and approval. All applicable fees required for the permit must be paid upon approval of the permit for the permit to be released and in effect. The Interconnection Agreement processing fee for systems sized 25 kW AC and under is \$ 200.00. The processing fee for systems sized greater than 25 kW AC is \$300.00. The Utility may require additional details or clarifications as needed to properly evaluate the application.
- 1.4 **System Effects.** SCMEU will analyze the overall impact of the proposed generating facility on the distribution system. Such analyses will be based on Good Utility Practice to determine thermal effects, voltage fluctuations, power quality, system stability, and other parameters.
- 1.5 **System Upgrades.** As a result of the analysis described in section 1.4, SCMEU will provide the Customer with a cost estimate and projected timeframe for any distribution system upgrades that may be necessary to accommodate the generating facility.

- 1.6 **Metering.** The interconnection Customer shall be responsible for the cost to purchase and install appropriate metering. Appendix A illustrates the sample of interconnection and metering requirement, ownership and responsibilities of the Parties.
- 1.7 **Codes and Permits.**
  - a) The interconnection Customer shall be responsible for procuring all building, operating, and environmental permits that are required by any governmental authority having jurisdiction for the type of generating facility and for the necessary ancillary structures to be installed, if any.
  - b) The equipment shall meet the standards listed in Section 2.7.
  - c) The construction and the facilities shall meet all applicable building and electrical codes.

## **Article II** **Technical Requirements**

- 2.1 **Character of Service.** The electrical service shall be 60 cycles per second (60 Hertz) alternating current (AC) at supply voltages and number of phases that apply under SCMEU's terms, conditions, rules, regulations and provisions for electric service, including metering requirements.
- 2.2 **Codes Requirements.** Once the generating facility has been authorized to commence parallel operation, the interconnection Customer shall abide by all operating procedures established by the National Electrical Code (NEC), National Electrical Safety Code (NESC), Institute of Electrical and Electronics Engineers (IEEE), Underwriters Laboratories (UL), and Occupational Safety and Health Administration. Specific codes are listed in Section 2.7 below as "National Certification Codes and Standards". In addition, Manufacturer's Ownership, Operating and Maintenance Manuals shall be reviewed and accepted by both Parties prior to beginning operation.
- 2.3 **Generating Facility Control and Operation.** The control system of the generating facility shall comply with the IEEE specifications and standards for parallel operation with SCMEU and in particular as follows:
  - a) Power output control system shall automatically disconnect from distribution system upon loss of utility voltage and not reconnect until utility voltage has been restored and stabilized by SCMEU.
  - b) Power output control system shall ride through voltage fluctuations but shall automatically disconnect from the SCMEU distribution system if SCMEU supplied distribution voltage or Customer-owned generation voltage fluctuates beyond plus or minus 10% (ten percent). The interconnection Customer shall provide adequate protection to prevent damage to the distribution system from inadvertent over/under voltage conditions originating in Customer's generating facility and to protect the Customer's generating facility

from inadvertent over/under voltage conditions originating from the distribution system

- c) Power output control system shall ride through frequency fluctuations but shall automatically disconnect from the SCMEU distribution system if frequency fluctuates beyond plus or minus 2 cycles per second from 60 cycles per second (Hertz).
- d) Inverter output distortion shall meet IEEE requirements.
- e) The generating facility shall meet the applicable IEEE standards concerning impacts to the distribution system with regard to harmonic distortion, voltage flicker, power factor, direct current injection and electromagnetic interference.
- f) The voltage produced by the Customer's generating facility must be balanced if it is a three-phase installation. The interconnection Customer is responsible for protecting the generating facility from an inadvertent phase imbalance in the SCMEU distribution system's service voltage.

2.4 **Fault Current Contribution.** The generating facility shall be equipped with protective equipment designed to automatically disconnect during fault current conditions and remain disconnected until the voltage and frequency have stabilized.

2.5 **Reclosing Coordination.** The generating facility shall be coordinated with the distribution system reclosing devices by disconnecting from the system during the initial de-energized operation and shall remain disconnected until the voltage and frequency have stabilized.

2.6 **Disconnect Device.** A safety manual disconnect switch of the visible load break type shall be installed by the customer. The disconnect switch shall be visible to and readily accessible by SCMEU and St. Charles Emergency and Fire Department personnel. The switch shall be capable of being locked in the open position and shall prevent the generator from supplying power to the distribution system.

2.7 **Standards for Interconnection, Safety, and Operating Reliability.** The interconnection of a generating facility and associated interconnection equipment to the Utility's distribution System shall meet the applicable provisions of the following publications:

- a) ANSI/IEEE1547-2018 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1-2020 testing protocols to establish conformity) as they may be amended from time to time. The following standards shall be used as guidance in applying IEEE 1547:
- b) IEEE Std 519-2014, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems
- c) IEEE1453, IEEE Recommended Practice for the Analysis of Fluctuating Installation on Power Systems

- d) UL1741 requirement for inverter based generation
- e) National Electric Safety Code (NESC)
- f) ANSI/NFPA 70, National Electrical Code (NEC)
- g) OSHA (29 CFR § 1910.269)

**Article III Inspection, Testing, Authorization, and Right to Access**

**3.1 Equipment Testing and Inspection.**

- a) Upon completing construction, the interconnection Customer shall test and inspect its generating facility including the interconnection equipment prior to interconnection in accordance with updated IEEE standards 1547 and IEEE standard 1547.1 by SCMEU inspection authority. The interconnection Customer shall not operate its generating facility in parallel with distribution system without prior written authorization by SCMEU.
- b) All interconnection related protective functions and associated direct current supplies shall be tested prior to commencement of commercial service, and (if nameplate rating of Customer's generating facilities is greater than 25 kW AC) periodically tested thereafter no less than every three (3) years with test results forwarded to SCMEU.

**3.2 Certification of Completion.** The interconnection Customer shall provide SCMEU with a copy of the Certificate of Completion with all relevant and necessary information fully completed by the interconnection Customer, as well as an inspection form from the Building and Code Enforcement Division and SCMEU inspector demonstrating that the generating facility passed inspection.

**3.3 Witness Test.**

- a) For all installations of 25 kW AC or larger, the interconnection Customer shall provide the Utility at least 30 business days' notice of the planned commissioning test for the generating facility, which will also provide a witness test. For systems sized less than 25 kW AC, the 30 business days' notice shall be waived.
- b) If the witness test is not acceptable to SCMEU, the interconnection Customer has 30 business days to address and resolve any deficiencies. This time period may be extended upon agreement between SCMEU and interconnection Customer. If the interconnection Customer fails to address and resolve the deficiencies to the satisfaction of SCMEU, this Agreement shall be terminated. The interconnection Customer shall, if requested by SCMEU, provide a copy of all documentation in its possession regarding testing conducted pursuant to IEEE standard 1547.1.
- c) After the generating facility passes the witness testing, the Utility shall affix an authorized signature to the Certificate of Completion and return it to the interconnection Customer

approving the interconnection and authorization parallel operation.

- 3.4 **Right of Access.** SCMEU must have access to the disconnect switch and metering equipment of the generating facility at all times without notice. When practical, SCMEU will attempt to provide advance notice to the Customer prior to using its right of access.

**Article IV Effective Date, Term, Termination, and Disconnection**

- 4.1 **Effective Date.** This Agreement shall become effective upon execution by all parties.
- 4.2 **Term of Agreement.** This Agreement shall become effective on the effective date and shall remain in effect unless terminated earlier in accordance with Article 4.4 of this Agreement.
- 4.3 **Governing Law, Regulatory Authority, and Rules.** The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the Codes and Regulations of the City of St. Charles, as well as the laws of the State of Illinois, without regard to its choice of law principals. Nothing in this Agreement is intended to affect any other agreement between SCMEU and the interconnection Customer.
- 4.4 **Termination.** This Agreement may be terminated under the following conditions:
- a) By interconnection Customer - The interconnection Customer may terminate this Agreement by providing written notice to the SCMEU, and if the interconnection Customer ceases operation of the generating facility, the interconnection Customer must notify SCMEU in writing.
  - b) By SCMEU - SCMEU may terminate this Agreement if the interconnection Customer fails to remedy a violation of the terms of this Agreement within 30 calendar days after notice, or such other date as may be mutually agreed to prior to the expiration of the 30 calendar day remedy period. The termination date may be no less than 30 calendar days after the interconnection Customer receives notice of its violation from the SCMEU distribution system.
  - c) Upon termination of this Agreement, the generating facility will be permanently disconnected from the distribution system. Terminating this Agreement does not relieve either party of its liabilities and obligations that are owed or continuing when the Agreement is terminated.



- d) Upon termination of this Agreement, SCMEU shall open and padlock the manual disconnect switch on Customer's premises.

4.5 **Disconnection.** SCMEU may temporarily disconnect the generating facility upon any of the following conditions, but must reconnect the generating facility once the condition is cured:

- a) For scheduled outages, provided that the generating facility is treated in the same manner as SCMEU's load Customers;
- b) For unscheduled outages or emergency conditions;
- c) If the generating facility does not operate in the manner consistent with this Agreement;
- d) Improper installation or failure to pass the witness test;
- e) If the generating facility is creating a safety, reliability or a power quality problem; or
- f) The interconnection equipment used by the generating facility is de-listed by the nationally recognized testing Laboratory that provided the listing at the time the interconnection was approved.
- g) Failure of the customer to obtain or maintain the insurance coverage set forth in Article 7 of this Agreement.

4.6 **Modification of Generating Facility.** The interconnection Customer must receive written authorization from SCMEU before making any changes to the generating facility that could affect the distribution system. If the interconnection Customer makes such modifications without SCMEU's prior written authorization, SCMEU shall have the right to disconnect the generating facility immediately.

4.7 **Permanent Disconnection.** In the event the Agreement is terminated, SCMEU shall have the right to disconnect its distribution system or direct the interconnection Customer to disconnect its generating facility.

4.8 **Lost Opportunity.** SCMEU is not responsible for any lost opportunity or other costs incurred by the interconnection Customer as a result of an interruption of service under this Article 4.

## **Article V Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

### **5.1 Interconnection Facilities.**

- a) The interconnection Customer is responsible for the cost of additional interconnection facilities necessary to interconnect the generating facility with the SCMEU distribution system.
- b) The interconnection Customer is responsible for its expenses, including overheads, associated with owning, operation, maintaining, repairing, and replacing its interconnection equipment

- c) **Distribution System Upgrades.** SCMEU shall design, procure, construct, install, and own any distribution system upgrades. The cost of the distribution system upgrades shall be directly assigned to the interconnection Customer whose generating facility caused the need for the distribution system upgrades.

5.2 **Cost for Small Systems.** For qualifying systems sized 10 kW AC or less, the cost in section 5.1 shall be capped at \$1,500.00.

**Article VI Assignment, Limitation on Damages, Indemnity, Force Majeure**

6.1 **Assignment/Transfer of Ownership of the Generating Facility.** This Agreement shall terminate upon the transfer of ownership of the generating facility to a new owner unless the transferring owner assigns the Agreement to the new owner, the new owner agrees in writing to the terms of this Agreement, and the transferring owner so notifies SCMEU in writing prior to the transfer of ownership.

6.2 **Limitation of Liability.** Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.

6.3 **Indemnification.** The interconnection Customer shall indemnify and defend SCMEU, the City of St. Charles and all its elected officials, directors, officers, employees, and agents from all damages and expenses resulting from any third party claim arising out of or based upon the interconnection Customer's (a) negligence or willful misconduct; (b) breach of this Agreement; or (c) the operation of the Customer's generating facility, regardless of Customer's negligence or willful misconduct, except when and to the extent the loss occurs due to the grossly negligent actions of SCMEU. SCMEU shall indemnify and defend the interconnection Customer and the interconnection Customer's directors, officers, employees, and agents from all damages and expenses resulting from a third party claim arising out of or based upon SCMEU's (a) negligence or willful misconduct or (b) breach of this Agreement.

6.4 **Force Majeure.** If a force majeure event prevents a Party from fulfilling any obligations under this Agreement, the Party effected by the force majeure event (Affected Party) shall notify the other Party of the existence of the force majeure event within one business day. The notification must specify the circumstances of the force majeure event, the expected duration, and the steps that the Affected Party is taking and will take to mitigate the effects of the event on its performance. If the initial notification is verbal, it must be followed up with a written notification within one business day. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the force

majeure event unit the event ends. The Affected Party may suspend or modify its obligations under this Agreement. The term “force majeure” shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, epidemic, pandemic, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's reasonable control. A Force Majeure event does not include an act of negligence or intentional wrongdoing by the Party claiming Force Majeure.

## **Article VII Insurance**

- 7.1 **Insurance.** The interconnection customer shall carry general liability insurance coverage, such as, but not limited to, homeowner’s insurance or commercial building insurance. The interconnection Customer shall provide SCMEU with proof that it has a current homeowner's insurance or commercial building insurance policy, or other general liability policy. The interconnection Customer shall name the City of St. Charles as an additional insured on its homeowner's insurance or commercial building insurance policy, or similar policy covering general liability and shall cause the insurance company to issue a Certificate of Insurance to the City of St. Charles. The interconnection customer shall notify the City of St. Charles immediately if such insurance policy is terminated or cancelled prior to the end of its term and if the insurance company has communicated an intent not to renew the policy.

## **Article VIII Documents and Notices**

- 8.1 **Documents.** The Agreement includes the following documents, which are attached and incorporated by reference:
- a) One-line drawing
  - b) Interconnection Request Application Form
  - c) System Upgrade Estimated Costs
  - d) Certificate of Completion
- 8.2 **Notice.** The Parties may mutually agree to provide notices, demands, comments, or requests by electronic means such as e-mail. Absent Agreement to electronic communication, or unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

**If to Interconnection Customer:**

Use the contact information provided in the interconnection Customer's application. The interconnection Customer is responsible for notifying SCMEU of any change in the contact party information, including change of ownership.

**If to SCMEU:**

Use the contact information provided below. SCMEU is responsible for notifying the interconnection Customer of any change in the contact party information.

Public Works Manager-Electric Services

Two East Main Street

St. Charles, Illinois 60174

Telephone (Daytime): 630-377-4407 (Evening-Emergency ONLY): 630-816-6007

Fax Number: 630-513-7442

E-Mail Address: Electric@stcharlesil.gov

**Article IX**

**Signatures**

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

**For the Interconnection Customer:**

Name:

Title:

Date:

**For Utility**

Name:

Title: Public Works Manager-Electric Services

Date:

SECTION TWO: That after the adoption and approval hereof the Ordinance shall (i) be printed or published in book or pamphlet form, published by the authority of the Council, or (ii) within thirty (30) days after the adoption and approval hereof, be published in a newspaper published in and with a general circulation within the City of St. Charles.

PRESENTED to the City Council of the City of St. Charles, Illinois, this \_\_\_\_\_ day of March 2022.

PASSED by the City Council of the City of St. Charles, Illinois, this \_\_\_\_\_ day of March 2022.

APPROVED by the Mayor of the City of St. Charles, Illinois, this \_\_\_\_\_ day of March 2022.

\_\_\_\_\_  
Lora A Vitek, Mayor

ATTEST:

\_\_\_\_\_  
Nancy Garrison, City Clerk

COUNCIL VOTE:

Ayes:

Nays:

Absent:

Abstain:

## EXISTING ORDINANCE LANGUAGE

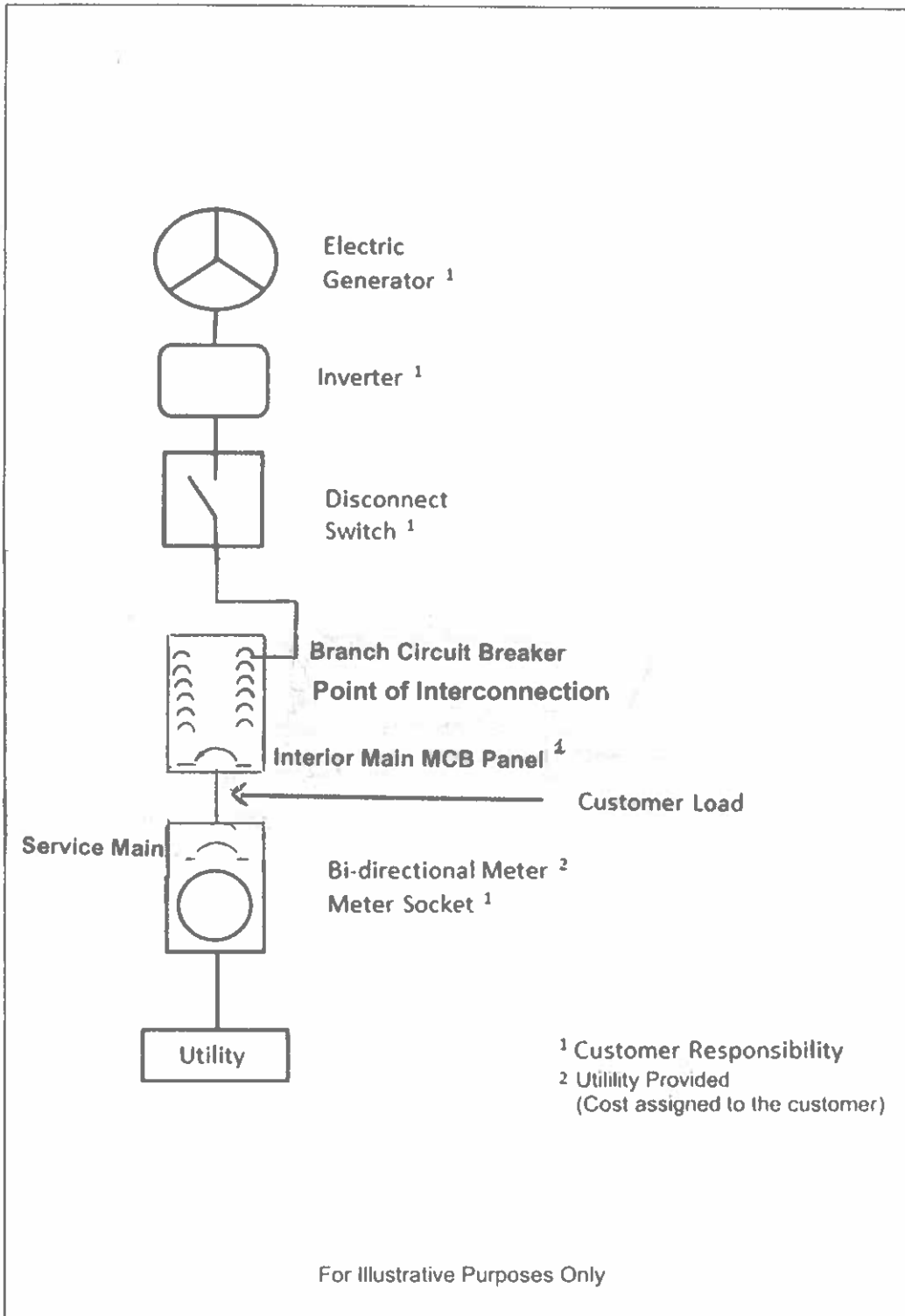
### 13.08.315 – Interconnection services for on-site generation facilities

St. Charles Municipal Electric Utility (SCMEU) shall make available, upon request, interconnection services to any customer that meets the required guidelines. Interconnection services in this Section refers to on-site generating facilities connected to SCMEU distribution system in a manner that will allow excess electricity generated by the eligible on-site generating facility to be safely delivered onto SCMEU's electric distribution system. Guidelines for interconnecting to the utility system are as follows:

- A. Only generating facilities that have been approved by SCMEU shall be interconnected with SCMEU's electric distribution system.
- B. Interconnection services shall only be available to premises with aggregated total generation at a single customer premise of less than 1 MW.
- C. All interconnections shall comply with IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems (IEEE 1547) as amended from time to time.
- D. SCMEU is under no obligation to purchase energy supplied to it under this section. This does not preclude the customer from meeting applicable standards that would allow the customer to supply power onto the utilities system and receive credit for such energy under the Renewable Generation Energy Purchase (RGEP) Policy (set forth in Section 13.08.320).
- E. If the customer qualifies under these interconnection standards but does not qualify under the RGEP Policy then any energy delivered to the utility system shall be surrendered to the utility for no value/credit. SCMEU will install, at customer expense, a meter that will not provide any credit for energy delivered to the utility system and the customer will pay any additional costs associated with the meter change.
- F. Customers will comply with all other applicable utility standards for interconnection.
- G. Capacity of 10kW or less and interconnected to the utility system shall comply with IEEE 1547 Section 5.5, Periodic Interconnection Tests. All interconnection related protective functions, equipment and associated batteries shall be tested at intervals specified by the manufacturer system integrator, or the authority that has jurisdiction over the Distributed Resources interconnection, or all tests shall be performed every three (3) years, whichever is shorter. Periodic test reports shall be maintained and submitted to the SCMEU Engineering Department.
- H. Systems of greater than 10kW shall perform all interconnection-related protective functions, equipment and associated battery testing on a yearly basis. All test reports shall be submitted to the SCMEU Engineering Department after completion of the yearly testing.
- I. Reports required under Section 13.08.315 paragraphs G. and H., must be submitted within 30 days of the anniversary date of the energizing of the interconnect generation. If the required reports are not received within the 30 day period, the generation must be disconnected until such time as the reports are submitted and accepted.

APPENDIX A

Sample One-line Interconnection Diagram



# City of St. Charles Solar Installation



Building & Code Enforcement Division  
2 East Main Street  
St. Charles IL 60174  
630.377.4406 (Office)

***Please direct any and all questions to the City of St. Charles Building & Code Enforcement Division:  
Monday through Friday (8 AM to 4:30 PM) at 630.377.4406***

A building permit is required prior a solar installation. The following are guidelines and comments for obtaining a building permit.

## **Application and Drawings Procedures:**

- An application is to be filled out and submitted to the Building & Code Enforcement Division. The contractor's names, addresses, phone numbers, email and, if required, their license.
- The Electric Service application is also attached for you to complete and submit with the drawings and the building application.
- Electric Service Application completed with the proposed connected kW AC and whether net metering (bi-directional net meter) is desired. Whether net metering is installed or not, an Interconnection Agreement is required to be signed by the customer before the solar system can be activated, this will be provided after submittals are approved.
- Four copies of all required construction documents. All documents are to be signed and sealed by an Illinois licensed architect or structural engineer.
  - Approval letter of existing roof with all system loads to be installed.
  - Inverter manufacture's specifications install cut-sheets.
  - Module manufacture's specifications install cut-sheets.
  - Panels and anchoring manufacture's specifications install cut-sheets.
  - Racking/rail system manufacture's specifications and method of attachment.
  - One-line diagram showing where the array interconnects with the distribution panel, raceway conductor calculations, (kW AC) and estimated annual energy output (kwh)
  - Labeling per manufacture's specification (note: label and location).
  - Provide roof plan showing location of panels, equipment and all clearances.
- If your property is located in any of the RT or CBD-2 zoning districts and your project involves any exterior alterations, additions, there are Architectural Design Guidelines in Section 17.06.060 of the Zoning Ordinance. The Planning Division will conduct a review of the project for compliance with these guidelines.

*Our goal is to complete the review of your building permit within 10 working days.*



**Application – Permit Fees: (All payments are to be made either in the form of cash, check, or money order)**

- **A filing fee is to be paid at time of submission of application and plans.**
  - For a **Residential** Solar Installation, the submittal fee is **\$240.00**  
**Additional fees for your permit are to be paid at the time the permit is approved and ready to be obtained.**
  - For estimated cost up to first thousand (\$1,000.00) dollars, One-Hundred (\$100.00) dollars
  - For estimated cost from one thousand and one (\$1,001.00) dollars to ten-thousand (\$10,000.00). Six (\$6.00) dollars per/\$1,000.00
  - For estimated cost from ten-thousand and one (\$10,001.00) to twenty-five thousand (\$25,000.00), Two dollars and 25 cents (\$2.25) per/\$1,000.00
  - For estimate cost from twenty-five thousand and one (\$25,001.00) dollars on, One-dollar and 50 cents (\$1.50) per/\$1,000.00
  
- For a **Commercial or Industrial** Solar Installation, the submittal fee is **\$375.00**  
**Additional fees** for your permit are to be paid at the time the permit is approved and ready to be obtained. **They are based on the upon the estimated cost of the project:**
  - \$4,001 to \$24,000 at \$6.75 per/\$1,000
  - \$24,001 and above at \$3.10 per/\$1,000
  
- **Re-inspection fee.** During the construction of your project should you fail any of the required inspections there is a re-inspection charge. The fees are due prior to certificate of occupancy. The fee schedule is as follows;
  - \$85.00 per re-inspection for all residential final inspections.

**Overtime Inspections:**

The Building & Code Enforcement Division Manager or his designee may approve requests for overtime inspections for unique circumstances. The charge for an overtime inspection will be a separate charge and will be invoiced to the individual contractor or company who requested the overtime inspection.

**Consultation Meetings:**

The Building and Code Enforcement Division offers a consultation meeting where you can meet with City staff and discuss any questions or issues on your project., either in the office or on site. To schedule this meeting, please contact our office at 630.377.4406

## **Building Codes:**

The following are the Building Codes, which the City of St. Charles has adopted:

- St. Charles Municipal Code
  - Sections 13.08.315 and 13.08.320 of the City of St. Charles Municipal Code (Residents installing a solar system that is interconnected to the utility distribution system, requires a electric service utility meter enclosure that has a main breaker and meets all current grounding and bonding codes).
- 2015 International Building Code
- 2015 International Residential Code
- International Fire Code
- Current State Energy Code
- 2014 National Electric Code w/ St. Charles amendments
- International Solar Energy Provisions Code
- The Building and Code Enforcement Division offers a consultation meeting where you can meet with City staff and discuss any questions or issues on your project., either in the office or on site. To schedule this meeting, please contact our office at 630.377.4406

## **Zoning requirements for Residential and Commercial:**

- Solar panels are permitted anywhere within the buildable area of the lot, subject to the same parameters as the principle building. They are not permitted yard encroachments and cannot be placed in the required yard setback areas.

### **Residential:**

- 1) Subject to design review if located within one of the RT or CBD-2 zoning districts.
- 2) Shall not exceed the permitted maximum allowed height per zoning district.
- 3) If ground mounted, not located within an easement.
- 4) If ground mounted, must be located at least 10' from the principle structure and cannot be taller than 20'.
- 5) Subject to Historic Preservation Commission review if located in the Historic District.

### **Commercial:**

- Subject to design review if located within the BL, BC, OR, CBD-1 and CBD-2 zoning districts.
- If ground mounted, cannot be located within an easement.
- Shall not exceed the permitted maximum allowed height per zoning districts.
- Subject to Historic Preservation Commission review, if located in the Historic District.

## General Comments:

- R105.7 Placement of permit. The building permit card shall be kept on the site (in the window) of the work and be visible from the street until such time as a certificate of occupancy permit has been issued, or a final inspection has been performed.
- The Permit Conditions form and stamped “FIELD COPY” of plans are to be on site for all inspections.
- A minimum 24 -hour notice is required when scheduling any inspection.
- The building permit card shall be kept on site, posted in a window visible from the street until a certificate of completeness has been issued, or final inspection has been performed.
- The approved stamped drawing shall be kept on the site of the project and available at all inspections.
- It is the responsibility of the general contractor and/or the owner to provide all the sub-contractors with a copy of all permit conditions and the inspections.
- A Final Inspection will need to be scheduled (a Building and Electric Inspector) through the Building Department. Please have the permit number and the address scheduling (630.377.4406)

## Homeowner – Contractor Responsibilities:

- ✓ It is the responsibility of the homeowner/contractor to schedule with the Building Department the required inspections. The required inspections are indicated on the Plan Review form, which is attached to your permit and the Field Copy of drawings. When calling to schedule an inspection, please have the address and the permit number.
- ✓ Call J.U.L.I.E. (Joint Underground Location for Inspectors and Engineers) at least 48-hours prior to any digging to locate any underground utilities. **(1-800/892-0123)**
  - Electric Utilities                      Red
  - Comcast (Cable)                      Orange
  - Northern Illinois Gas (NICOR)      Yellow
  - Sewer Utilities                      Green
  - Telephone Utilities                  Orange
  - Water Utilities                      Blue



**Electric Service Application – New Service/Upgrade**  
(Each individual service will require a complete and separate application)

Name: _____	Phone: _____
Original Signature: _____	Fax: _____
Contact Name: _____	Phone: _____
Email Address: _____	
Application Date: _____	Requested Service Date: _____

Existing Building	Other	New Building	Service Voltage Requested
<input type="checkbox"/> Residential	<input type="checkbox"/> Temp Connection	<input type="checkbox"/> Residential: Single family	<input type="checkbox"/> Single Phase 120/240
<input type="checkbox"/> Commercial	<input type="checkbox"/> Street Lights	<input type="checkbox"/> Residential: Multi Family	<input type="checkbox"/> Three Phase
<input type="checkbox"/> Industrial	<input type="checkbox"/> Traffic Signals	estimated # of units _____	<input type="checkbox"/> 120/208
<input type="checkbox"/> Upgrade Service	<input type="checkbox"/> New Service	<input type="checkbox"/> Commercial	<input type="checkbox"/> 277/480
<input type="checkbox"/> Relocate Service	<input type="checkbox"/> Relocate	<input type="checkbox"/> Commercial: Multi Family	<input type="checkbox"/> Other
<input type="checkbox"/> Convert OH to UG	<input type="checkbox"/> Antenna Site	estimated # of units _____	
	<input type="checkbox"/> Signage Lights	<input type="checkbox"/> Industrial	
	<input type="checkbox"/> Solar-Wind-Generator	<input type="checkbox"/> Other	

**Service Panel:**

Present Rating (amps) \_\_\_\_\_ Proposed Rating (amps) \_\_\_\_\_ Proposed Connected kW: \_\_\_\_\_

Present Peak kW (Demand) \_\_\_\_\_ Estimated Peak kW (Demand) \_\_\_\_\_ Proposed Interconnected kW AC \_\_\_\_\_

**SERVICE ADDRESS**  
(A complete and accurate service address is required before service may be installed)

Street Address: \_\_\_\_\_

Subdivision: \_\_\_\_\_ Lot # \_\_\_\_\_ Real Estate Permanent Tax # \_\_\_\_\_

Legal Description (attach sheet if necessary): \_\_\_\_\_

Record Titleholder of property: \_\_\_\_\_

If property is held in trust, identify beneficial owner (s): \_\_\_\_\_

Address: \_\_\_\_\_

**CUSTOMER BILLING INFORMATION**  
(This information will be used for utility billing purposes)

Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City/State/Zip \_\_\_\_\_ Phone: \_\_\_\_\_

Authorized representative or agent: \_\_\_\_\_

Title: \_\_\_\_\_ Phone: \_\_\_\_\_

**BUILDING DIVISION OFFICE USE**

Application Accepted By: \_\_\_\_\_

Date Application Received: \_\_\_\_\_

Date Payment Received: \_\_\_\_\_

Method of Payment: \_\_\_\_\_

Building Permit No.: \_\_\_\_\_

**ELECTRIC DEPARTMENT CHARGES**

**Charges Calculated by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

<u>ITEM</u>	<u>ACCOUNT #</u>	<u>CHARGES (\$)</u>	<u>AMOUNT PAID</u>
Project Cost:	- 200999 45405	_____	_____
SOCC: VACANT	200999 48500	_____	_____
SECC: VACANT	200999 48501	_____	_____
SOCC:	200999 48502	_____	N/A
SECC:	200999 48503	_____	_____
Upgrade Charges:	200999 48504	_____	_____
Engineering:	200999 45206	_____	_____
Temp Connection:	200999 45407	_____	_____
Electric Improvement:	200999 45404	_____	_____
Relocation	_____	_____	_____
Subtotal		_____	N/A
Less contribution- if applicable		_____	N/A
<b>Total Amount of Charges:</b>		_____	_____

**Electric Project No.:** \_\_\_\_\_

**CITY OF ST CHARLES**  
**Application for Building Permit for Residential Alteration Solar**



**DEPARTMENT: Building & Code Enforcement Division      PHONE: (630) 377-4406 FAX (630) 443-4638**

**Application Date:** \_\_\_\_\_ **Parcel No.** \_\_\_\_\_ **Permit No.** \_\_\_\_\_

**PLEASE PRINT ALL INFORMATION**

**I, \_\_\_\_\_, do hereby apply for a permit for the following described work**

**located at \_\_\_\_\_ Estimated Cost: \_\_\_\_\_**

**Description of proposed work: \_\_\_\_\_**

**Sq. Ft. of construction area: \_\_\_\_\_ Existing Electric Service amps. \_\_\_\_\_ Size of existing Water Meter : \_\_\_\_\_**

**Will this work include moving, upgrading or replacing the Electric, Water or Sanitary Service? Yes No (circle one)**

**Check List for Submittal of Application:**

- Is your property located in the Historic Preservation District? Yes/No If yes, your application and plans will need to be reviewed by the Historic Preservation Committee.
- Is your property located in the RT or CBD Zoning District? If yes, your application and plans are to have an Architectural Consult Meeting with our Planning Division before we can issue your permit.
- Building Permit Application – Completely Filled Out.
- If any roofing is conducted by anyone other than the owner we need a copy of the Roofing Contractor’s Illinois State License.
- Electric Service Application completed with the proposed connected kW AC and whether net metering (bi-directional net meter) is desired. Whether net metering is installed or not, an Interconnection Agreement is required to be signed by the customer before the solar system can be activated, this will be provided after submittals are approved.
- Three copies of all required construction documents. All documents are to be signed and sealed by an Illinois licensed architect or structural engineer.
- Submittal fee of \$240.00, PAYMENT BY CASH OR CHECK PAYABLE TO CITY OF ST. CHARLES.**

**Owner of the Property:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_

**Applicant:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_

**General Contractor:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_

**Electrical Contractor:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_

**Application - Residential  
Alteration - Solar  
Page 2**

**Plumbing Contractor:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_  
Illinois License No. \_\_\_\_\_

**Roofing Contractor:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_  
Illinois License No. \_\_\_\_\_

**Concrete Contractor:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_

**HVAC Contractor:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Telephone NO. \_\_\_\_\_

**I, the undersigned, certify that if a permit is issued to me, I will comply with all provisions of the building, plumbing, electric and other applicable ordinances of the City of St. Charles and shall perform all work, or cause all work to be performed according to the provisions of said ordinances. I, or my agent, shall personally supervise the work and shall do, or cause to have done, said work according to plans, specifications and other written information supplied as a part of this application. I am familiar with the applicable ordinances and the provision thereof and in signing this application do willingly become responsible for all work accomplished under the permit by all contractors, tradesmen and workmen, and shall call for inspections as required at a minimum of 24-hours before they become due.**

**PRINT NAME:** \_\_\_\_\_ **SIGNATURE:** \_\_\_\_\_

**REPORT OF THE BUILDING OFFICIAL**

**Remarks:** \_\_\_\_\_

**Accepted:** \_\_\_\_\_ **Rejected:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Signed:** \_\_\_\_\_

<b>For Office Use</b>
<b>Received</b> _____
<b>Fee Paid \$</b> _____
<b>Receipt #</b> _____
<b>Check #</b> _____

# City of St. Charles

## Customer-Owned Generating Facilities

### Interconnection Agreement Permit Requirements



Public Works – Electric Services Division  
2 East Main Street  
St. Charles IL 60174  
630.377.4407 (Office)  
<http://www.stcharlesil.gov>

*Please direct questions related to self-generation interconnections or Fair Solar Credits to the City of St. Charles Electric Services Division: Monday through Friday (8 AM to 4:30 PM) at 630.377.4407*

The below include the standard submittal requirements related to solar installations and interconnection with the City's electric distribution system.

#### **Application and Drawings Procedures:**

- ▶ City Code covering the basic requirements related to customer self-generation interconnection and Fair Solar Credits for renewable energy generation is found in sections 13.08.315 and 13.08.320 of the City of St. Charles Municipal Code.
  
- ▶ Drawings must be submitted in accordance with the Building and Code Enforcement Division Solar Installation Permit.
  
- ▶ Required Submittal Information to be included with the Solar Installation Permit Application:
  - Array size (kW) and estimated annual energy output (kwh)
  - Product cut sheets:
    - Solar panels
    - Inverter equipment
    - Mounting hardware
    - Battery components (if applicable)
  - Electric one-line showing where the array interconnects with the service main electric distribution panel
  - If roof mounted, structural analysis validating integrity of the roof
  - If “net metering” is requested, Electric Service Application submittal is required



**Application – Permit Fees: (All payments are to be made under the required Building and Code Enforcement Division permit.)**

- ▶ In addition to the standard building permit fees, these additional fees as appear in the interconnection agreement may apply:
  - City Electric Engineering review of the submittal
  - City Electric Engineering hours to develop interconnection agreement
  - Cost for bi-directional meter, if net metering is requested
  - Inspection cost upon completion of the installation to insure compliance with ANSI standards with regard to back-feed prevention
- ▶ These additional fees will be individually developed based on the application

**Additional Comments/Requirements:**

**Consistent with City Code Section 13.08.315, the Electric Utility requires each installation to:**

- ▶ Complete and sign an Interconnection Agreement
- ▶ Final inspection will not be scheduled prior the completion of the Interconnection Agreement
- ▶ Any array interconnected without a completed Interconnection Agreement will be considered to be in violation of City Code and shall be required to be disconnected as required by the Interconnection Agreement.

**General Comments:**

- ⇒ Inspections of the solar panel installation and all wiring shall be scheduled through the Building and Code Enforcement Office – 630.377.4410.
- ⇒ Verification that the system will not back-feed the electric grid during a power outage will be conducted by the Electric Division during the final inspection scheduled through the Building and Code Enforcement permit office.
- ⇒ All documents MUST be submitted to the City of St. Charles Building and Code Enforcement office, approved, applicable fees paid and a permit issued prior to any work beginning.