Sample PV Grid-Tied One Line Diagram
SUPPLY SIDE INTERCONNECTION

NOTES

1. Top lugs of the generation meter should always be connected to the feed from the PV system. Some reverse flow is expected due to losses that may be fed from the grid to the inverter when the DG source is not generating power.

2. This diagram shows a typical installation and does not include all PV system components. Grounding connections are not shown for simplicity. It should not be used for design purposes.

3. All PV systems are to be in compliance with the NEC, UL, IEEE 1547, and any other equivalent or applicable local, state or national governing requirements.

4. Customer generation AC disconnect switch must be a manual, lockable, visible load break disconnect switch installed between the generation source and the Distributor’s system that is visibly marked “Participant’s Generation Disconnect.”

5. A permanent, weatherproof one line diagram of PV system is to be mounted adjacent to customer generation AC disconnect switch.

6. The inverter must be UL 1741 certified (ed. 2005 or later) utility interactive compliant per the requirements of IEEE 1547. Equivalent certifications from other OSHA national testing laboratories meeting IEEE 1547 are acceptable.
Sample PV Grid Tied One Line Diagram
SUPPLY SIDE INTERCONNECTION WITH EMERGENCY BATTERY BACKUP

NOTES

1. **Top lugs of the generation meter should always be connected to the feed from the PV system.**
   Some reverse flow is expected due to losses that may be fed from the grid to the inverter when the DG source is not generating power.

2. This diagram shows a typical installation and does not include all PV system components. Grounding connections are not shown for simplicity. It should not be used for design purposes.

3. All PV systems are to be in compliance with the NEC, UL, IEEE 1547, and any other equivalent or applicable local, state or national governing requirements.

4. **Customer generation AC disconnect switch must be a manual, lockable, visible load break disconnect switch installed between the generation source and the Distributor’s system that is visibly marked “Participant’s Generation Disconnect.”**

5. A permanent, weatherproof one line diagram of PV system is to be mounted adjacent to customer generation AC disconnect switch.

6. The inverter must be UL 1741 certified (ed. 2005 or later) utility interactive compliant per the requirements of IEEE 1547. Equivalent certifications from other OSHA national testing laboratories meeting IEEE 1547 are acceptable.

7. **All transfer switches must be designed to never allow the PV system to be connected to the house main service panel.**
Sample PV Grid Tied One Line Diagram
SUPPLY SIDE INTERCONNECTION WITH EMERGENCY GENERATOR BACKUP

NOTES

1. **Top lugs of the generation meter should always be connected to the feed from the PV system.** Some reverse flow is expected due to losses that may be fed from the grid to the inverter when the DG source is not generating power.

2. This diagram shows a typical installation and does not include all PV system components. Grounding connections are not shown for simplicity. It should not be used for design purposes.

3. All PV systems are to be in compliance with the NEC, UL, IEEE 1547, and any other equivalent or applicable local, state or national governing requirements.

4. **Customer generation AC disconnect switch must be a manual, lockable, visible load break disconnect switch installed between the generation source and the Distributor’s system that is visibly marked “Participant’s Generation Disconnect.”**

5. A permanent, weatherproof one line diagram of PV system is to be mounted adjacent to customer generation AC disconnect switch.

6. The inverter must be UL 1741 certified (ed. 2005 or later) utility interactive compliant per the requirements of IEEE 1547. Equivalent certifications from other OSHA national testing laboratories meeting IEEE 1547 are acceptable.

7. All transfer switches must be designed to never allow the AC generator to be connected to the house main service panel.
Sample PV Grid Tied One Line Diagram
LOAD SIDE INTERCONNECTION

NOTES

1. **Top lugs of the generation meter should always be connected to the feed from the PV system.** Some reverse flow is expected due to losses that may be fed from the grid to the inverter when the DG source is not generating power.

2. This diagram shows a typical installation and does not include all PV system components. Grounding connections are not shown for simplicity. It should not be used for design purposes.

3. All PV systems are to be in compliance with the NEC, UL, IEEE 1547, and any other equivalent or applicable local, state or national governing requirements.

4. **Customer generation AC disconnect switch must be a manual, lockable, visible load break disconnect switch installed between the generation source and the Distributor’s system that is visibly marked “Participant’s Generation Disconnect.”**

5. A permanent, weatherproof one line diagram of PV system is to be mounted adjacent to customer generation AC disconnect switch.

6. The inverter must be UL 1741 certified (ed. 2005 or later) utility interactive compliant per the requirements of IEEE 1547. Equivalent certifications from other OSHA national testing laboratories meeting IEEE 1547 are acceptable.
NOTES

1. **Top lugs of the generation meter should always be connected to the feed from the PV system.**
   Some reverse flow is expected due to losses that may be fed from the grid to the inverter when the DG source is not generating power.

2. This diagram shows a typical installation and does not include all PV system components. Grounding connections are not shown for simplicity. It should not be used for design purposes.

3. All PV systems are to be in compliance with the NEC, UL, IEEE 1547, and any other equivalent or applicable local, state or national governing requirements.

4. **Customer generation AC disconnect switch must be a manual, lockable, visible load break disconnect switch installed between the generation source and the Distributor’s system that is visibly marked “Participant’s Generation Disconnect.”**

5. A permanent, weatherproof one line diagram of PV system is to be mounted adjacent to customer generation AC disconnect switch.

6. The inverter must be UL 1741 certified (ed. 2005 or later) utility interactive compliant per the requirements of IEEE 1547. Equivalent certifications from other OSHA national testing laboratories meeting IEEE 1547 are acceptable.

7. All transfer switches must be designed to never allow the PV system to be connected to the house main service panel.
Sample PV Grid Tied One Line Diagram
LOAD SIDE INTERCONNECTION WITH EMERGENCY GENERATOR BACKUP

NOTES

1. **Top lugs of the generation meter should always be connected to the feed from the PV system.**
   Some reverse flow is expected due to losses that may be fed from the grid to the inverter when the DG source is not generating power.

2. This diagram shows a typical installation and does not include all PV system components. Grounding connections are not shown for simplicity. It should not be used for design purposes.

3. All PV systems are to be in compliance with the NEC, UL, IEEE 1547, and any other equivalent or applicable local, state or national governing requirements.

4. **Customer generation AC disconnect switch must be a manual, lockable, visible load break disconnect switch installed between the generation source and the Distributor’s system that is visibly marked “Participant’s Generation Disconnect.”**

5. A permanent, weatherproof one line diagram of PV system is to be mounted adjacent to customer generation AC disconnect switch.

6. The inverter must be UL 1741 certified (ed. 2005 or later) utility interactive compliant per the requirements of IEEE 1547. Equivalent certifications from other OSHA national testing laboratories meeting IEEE 1547 are acceptable.

7. All transfer switches must be designed to never allow the AC generator to be connected to the house main service panel.