

The one-line diagram must include the following:

- **Site Plan:**

The Customer must provide details on equipment capacity, type and location. Information must be clearly identified and marked to avoid confusions and delay in the technical review step. All specifications provided in the sample one-line diagram are reviewed and must be satisfied prior to technical review approval. For more information on the specifications, please follow the sample one-line diagram link provided previously in *Section 3.1/3.2/3.3* or visit *Appendix A*. The one-line diagram must comply with the DSO 1875 standard. Please see *Section 5.1 Sample One-Line Diagram*.

**Note:** Prior standards will not be accepted by EPE.
- **Inverter information:**

All inverters must comply with UL1741 and must be equipped with protective devices to prevent connection or parallel operation of the generating equipment unless EPE's service voltage and frequency are within standard operating ranges. The delivery service phase must be clearly specified in the one-line diagram and in the Interconnection Application. Inverter's manufacturer and model, specific power and voltage ratings must be identified.
- **A/C Disconnect information:**

A visible A/C Disconnect must be installed to allow manual interruption of electrical service from the main service panel. REC disconnect must be accessible to EPE's Meter Test employees and Customers and must be equipped with protective devices to prevent connection to a de-energized circuit. The location of the A/C Disconnect must be between the REC meter and the main service panel according to the one-line diagram requirements. Within 5ft. Neutrals may or may not be landed in the REC disconnect until further notice governed by the Authority Having Jurisdiction, (AHJ).
- **Breaker information:**

The one-line diagram must depict the breaker rating. The breaker rating specified on the one line must match the breaker size installed at the premise.
- **Wire Size**

Wire sizing must be provided for the wires used from the disconnect to the REC Meter and from the REC to the main service.
- **Storage System information (if applicable):**

If installing a storage system, the one-line must also depict the following:

  - The energy storage type: (e.g. battery)
  - If Battery: Battery Chemistry (e.g. Lead Acid, Li-Ion, NiCa)
  - Max Storage Capacity (kW)
  - Energy Capacity (kWh)
  - Energy Storage System Voltage: (V)
  - Energy Storage Maximum Discharge Capacity: Rated maximum current at rated voltage (A)
  - Energy Storage Nominal Discharge Capacity: Rated current at rated voltage (A)
  - Specify intended use for mode of operation (Backup power, power quality, other)

If installing a separate inverter for the storage system, please provide the following information on the one-line diagram:

- Inverter Manufacturer
  - Inverter Model
  - Inverter certification
  - Rated output power (Watts)
  - Maximum apparent AC output power (VA)
  - Rated Output Voltage (V)
  - Inverter Short Circuit Capacity (Amps or per unit), if available
  - Provide Manufacturer specifications sheet
  - Provide transfer switch specs
- 
- **Total Consumption / Total Production Net Metering:**
    - Taps are not made in Meter Can.
    - Neutral must be landed in ALL Meter Cans.
    - 2 Disconnects are required for Total Production Side:
      - 1) From the non-fusible disconnect to REC Meter must be wired from top to bottom.
      - 2) From fusible disconnect to Gutter: Gutter to disconnect must be on line side due to safety issues.
    - Placards must identify Total Production and Total Consumption Site.
- 
- **Expansions:**
    - List Existing, New and Total System Sizes in AC and DC:
      - Existing system sizes in AC and DC must match EPE's record of original system.
      - New system sizes:
        - If replacing equipment, only list *new* equipment. Include note stating which equipment is being replaced. If all equipment will be replaced, refer to the System Replacement Process.
        - If adding equipment to existing install, please list *new* equipment only.
      - Total System size: List total system size Customer will have after Expansion is completed.
    - List the expected annual system generation for the **total system size** the Customer will have once Expansion is completed.

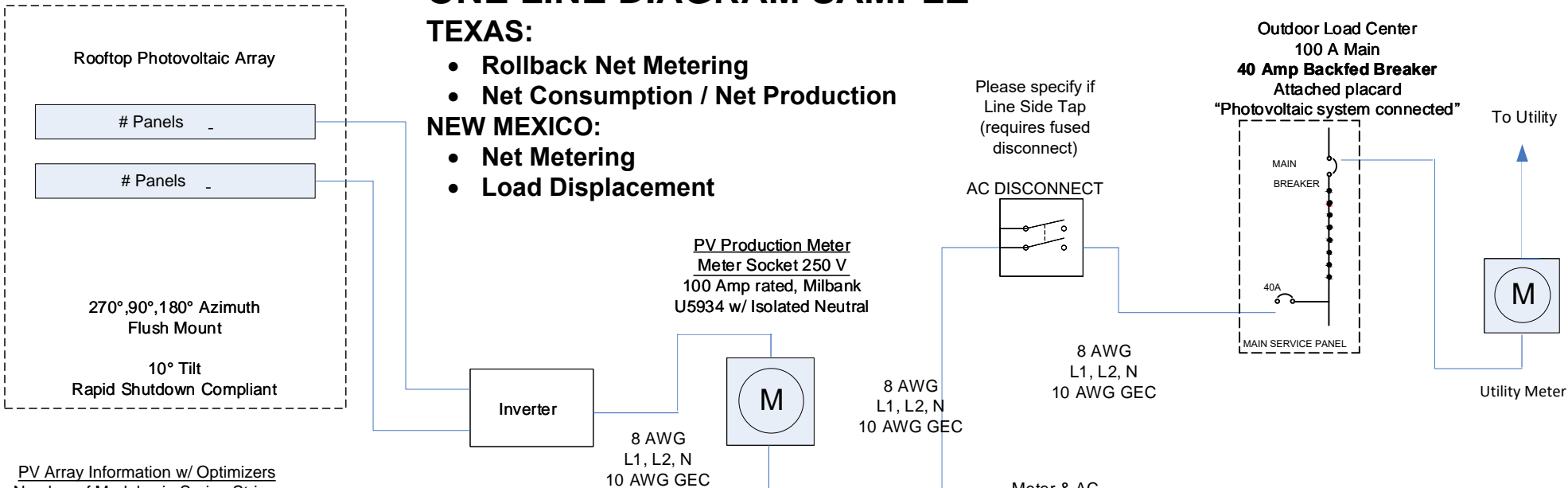
# ONE LINE DIAGRAM SAMPLE

## TEXAS:

- Rollback Net Metering
- Net Consumption / Net Production

## NEW MEXICO:

- Net Metering
- Load Displacement



### PV Array Information w/ Optimizers

Number of Modules in Series String  
Maximum Current per String =  
Max DC Voltage =  
Max Vmp per String =

### 10 AWG Conductors 12 AWG Equipment Ground

Up to 6 Current Carrying  
Conductors per Conduit  
Voltage Drop < 1% if linear  
distance is less than 100 Ft  
3/4" Conduit or Greater

INVERTER / SOLAR PANELS INFORMATION	
MAKE AND MODEL:	
MAX DC VOLTAGE RATING	
MAX CONTINUOUS POWER	
NOMINAL AC VOLTAGE	
MAX AC CURRENT	
MAX OCPD RATING	

### Notes & distances

- Weather proof one line electric diagram of generating facility will be located at the point of service connection to the utility
- PV array on roof of residence.
- All AC equipment located by Utility Meter
- Inverter located by meter
- Photovoltaic AC Disconnect to main service panel within 5'
- Main service panel to revenue meter within 5'
- Photovoltaic AC Disconnect to revenue meter within 10'
- Photovoltaic AC Disconnect is lockable and visible within sight to revenue meter
- REC disconnects are for all EPE employees and Customers to disconnect.

**ESTIMATED ANNUAL DG SYSTEM OUTPUT:** In kWh

### Notes:

1. Main Service Panel and Main Service Disconnect can be combined, either interior or exterior.
2. Qualifying facility (QF) must have a visible, lockable disconnect with 5' of main service disconnect.
3. If existing service is upgraded, changed or modified it must be brought up to current EPE standards and current local state codes.
4. Permanently post one-line diagram.  
A. Placards must be permanently placed on service indicating this an "Interconnection site", Rec Meter, A/C Disconnect.

Customer Name: Total System Size: Install Address:

Date:

Installer Name:

Phone:

Email:

Contact:



# ONE LINE DIAGRAM SAMPLE

## TEXAS:

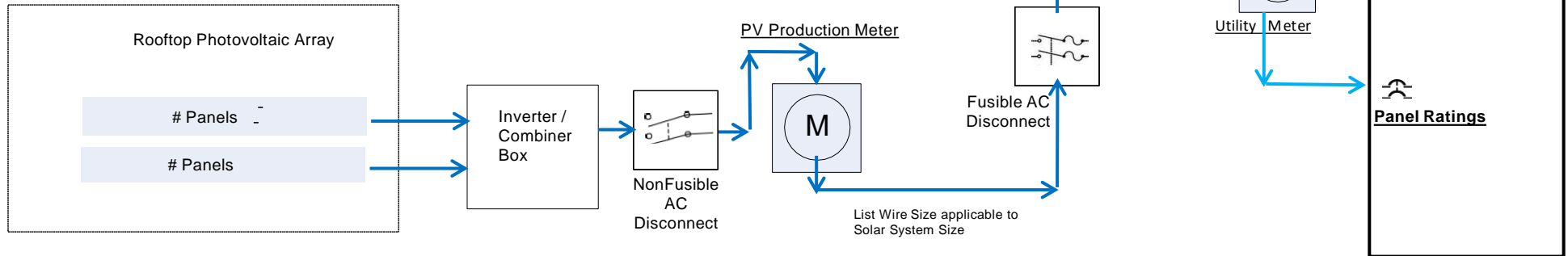
· Total Consumption/ Total Production

## NEW MEXICO:

· Separate Load Metering

Total Production (TP)

Total Consumption (TC)



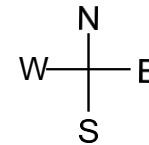
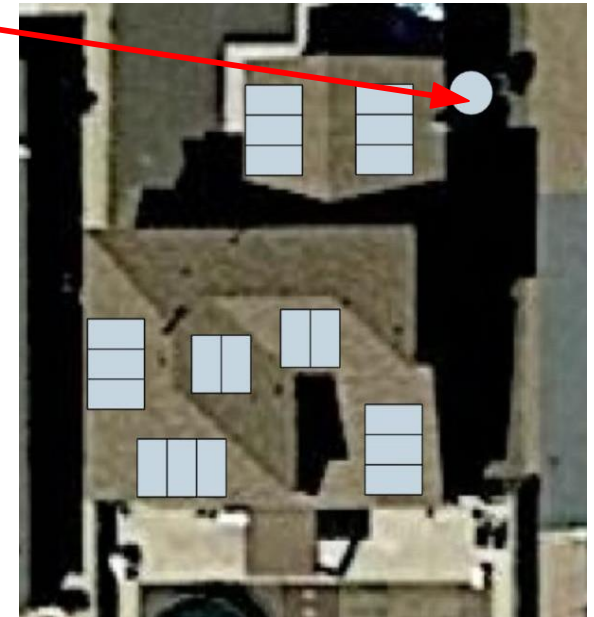
### PV Module and Inverter Ratings

- # of Inverters and Panels
- Manufacturer / Model
- Maximum Continuous Power Ratings

### Requirements:

- Taps are not made in meter can.
- Neutral must be landed in ALL meter cans.
- REC disconnects are for all EPE employees and customers to disconnect.
- 2 Disconnects are required for Total Production Side:
  - 1) From the non-fusible disconnect to REC Meter must be wired from top to bottom.
  - 2) From fusible disconnect to Gutter: Gutter to disconnect must be on line side due to safety issues.
- Placard must identify TP/TC site, REC Meter Can, AC Disconnect, Service Address on Main Svc Panel
- Weatherproof Container required with line diagram inside.

Meter Equipment



Estimated Annual Output in kWhs  
Example: kWh per year

Total System Size: AC and DC

Customer Name:

Install Address:

Date:

Installer Name:

Phone:

Email:

Contact: