NET METERING
0-100kW

GENERAL NOTES

1. INSTALLATION SHALL MEET ALL APPLICABLE SAFETY AND PERFORMANCE STANDARDS ESTABLISHED BY THE NATIONAL ELECTRICAL CODE, THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, AND ACREDITED TESTING LABORATORIES SUCH AS UNDERWRITERS LABORATORIES AND, WHERE APPLICABLE, RULES OF PUBLIC UTILITIES COMMISSION REGARDING SAFETY AND RELIABILITY, AS WELL AS MEET ALL MID REQUIREMENTS.

2. APPLICANT SHALL MAKE PROVISIONS FOR THE INSTALLATION OF A MID METER DEDICATED TO MEASURING THE OUTPUT PERFORMANCE OF THE SOLAR GENERATION. APPLICANT SHALL PROVIDE AND INSTALL MID-SPECIFIED PERFORMANCE METER SOCKET AND ASSOCIATED WIRING. MID WILL PROVIDE THE PERFORMANCE METER. APPLICANT SHALL BE RESPONSIBLE FOR ALL INSTALLATION COSTS. PERFORMANCE METER SOCKET TO BE INSTALLED IN FRONT OF ALL FENCING, GATES OR OTHER OBSTRUCTIONS AND BE LOCATED WITHIN 10 ft. OF THE MAIN SERVICE DISCONNECT.

3. INTERCONNECTIONS TO THE LOAD-SIDE OF THE CUSTOMER'S MAIN SERVICE DISCONNECT/PROTECTION DEVICE (BREAKER, FUSE, ETC.) INSTALLED IN ACCORDANCE WITH NEC ARTICLES 690.64[B] AND 240.21, ARE ALLOWED. INTERCONNECTIONS TO THE SUPPLY SIDE OF THE CUSTOMER'S MAIN SERVICE DISCONNECT/PROTECTION DEVICE (BREAKER, FUSE, ETC.) INSTALLED IN ACCORDANCE WITH NEC ARTICLES 230.82[6] AND 690.64[A], ARE ALLOWED. ALL INTERCONNECTIONS SHALL BE ON THE LOAD-SIDE OF THE NET METERING POINT.

4. APPLICANT SHALL PROVIDE AND INSTALL A LOCKABLE AC DISCONNECT SWITCH WITH VISIBLE OPEN TO PREVENT SOLAR GENERATION FROM ENTERING THE MID ELECTRIC SYSTEM IN THE EVENT OF AN EMERGENCY OR MID ELECTRIC SYSTEM MAINTENANCE. IF A HARD TAP INTERCONNECTION IS TO BE MADE ON THE SOURCE-SIDE OF CUSTOMER'S MAIN SERVICE DISCONNECT/PROTECTION DEVICE (BREAKER, FUSE, ETC.), A LOCKABLE AND FUSED DISCONNECT SWITCH WITH VISIBLE OPEN MUST BE INSTALLED. APPLICANT SHALL BE RESPONSIBLE FOR ALL INSTALLATION COSTS. AC DISCONNECT SWITCH TO BE INSTALLED IN FRONT OF ALL FENCING, GATES OR OTHER OBSTRUCTIONS AND BE LOCATED WITHIN 10 ft. OF THE MAIN SERVICE DISCONNECT.

5. PERMANENT LABELS DENOTING THE EXISTENCE OF DUAL POWER SUPPLIES SHALL BE AFFIXED TO AC DISCONNECT AND NET METER PANEL (SEE FIGURE 9, PAGE 6).

6. MID RESERVES THE RIGHT TO INSPECT ANY PORTION OF THE SOLAR GENERATION SYSTEM INTERCONNECTED TO ITS ELECTRIC SYSTEM. ANY INTERCONNECTED SOLAR GENERATION NOT MEETING MID'S SAFETY REQUIREMENTS IS SUBJECT TO DISCONNECTION UNTIL SUCH TIME AS ALL SAFETY REQUIREMENTS ARE MET.

7. UNDER NO CIRCUMSTANCES SHALL SOLAR GENERATION BE CONNECTED TO MID ELECTRIC SYSTEM WITHOUT AUTHORIZATION.

8. ANY DEVIATION FROM THIS STANDARD WILL REQUIRE WRITTEN APPROVAL FROM MID ENGINEERING PRIOR TO CONSTRUCTION.

9. SYSTEMS LARGER THAN 100kW WILL BE REVIEWED BY MID ENGINEERING AND SPECIFIC INSTALLATION REQUIREMENTS WILL BE DETERMINED ON A CASE-BY-CASE BASIS.
FIGURE 1
NET METERING INSTALLATION DIAGRAM

PERFORMANCE METER AND AC DISCONNECT MUST BE ACCESSIBLE WITHIN 10 FEET OF, AND WITHIN SIGHT OF MAIN SERVICE PANEL.

FIGURE 2
NET METERING CIRCUIT DIAGRAM

TABLE 1
PERFORMANCE METER CONFIGURATION

<table>
<thead>
<tr>
<th>SYSTEM SIZE</th>
<th>SYSTEM VOLTAGE</th>
<th>SYSTEM PHASE</th>
<th>METER RATING</th>
<th>WIRING CONFIGURATION</th>
<th>SOCKET DETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;17kW</td>
<td>120/208</td>
<td>1PH, 3W</td>
<td>100A</td>
<td>5-JAW</td>
<td>FIG-5</td>
</tr>
<tr>
<td>&lt;20kW</td>
<td>120/240</td>
<td>1PH, 3W</td>
<td>100A</td>
<td>4-JAW</td>
<td>FIG-4</td>
</tr>
<tr>
<td>17-35kW</td>
<td>120/208</td>
<td>1PH, 3W</td>
<td>200A</td>
<td>5-JAW</td>
<td>FIG-5</td>
</tr>
<tr>
<td>20-40kW</td>
<td>120/240</td>
<td>1PH, 3W</td>
<td>200A</td>
<td>4-JAW</td>
<td>FIG-4</td>
</tr>
<tr>
<td>&lt;60kW</td>
<td>120/208</td>
<td>3PH, 4W</td>
<td>200A</td>
<td>7-JAW</td>
<td>FIG-6</td>
</tr>
<tr>
<td>&lt;100kW</td>
<td>277/480</td>
<td>3PH, 4W</td>
<td>200A</td>
<td>7-JAW</td>
<td>FIG-6</td>
</tr>
</tbody>
</table>

*CONTACT MID ENGINEERING (209-722-5761) FOR SIZES EXCEEDING THIS CHART.*
FIGURE 3
NET METERING EQUIPMENT LAYOUT
(EXAMPLE)

NOTES

1. ALL METERING EQUIPMENT TO BE LOCATED IN FRONT(ON STREET-SIDE) OF FENCES/GATES.
2. WORKING SPACE MUST BE CLEAR AND UNOBSSTRUCTED AT ALL TIMES.
3. MAIN SERVICE DISCONNECT, AC DISCONNECT AND PERFORMANCE METER TO BE LOCATED WITHIN 10FT OF EACH OTHER.
NOTE

1. To ensure proper orientation of meter, the 'source' and 'load' sides of the enclosure must be installed as shown.
FIGURE 7
NET METERING SAFETY LABELS

WARNING!
DUAL POWER SUPPLY
SOLAR ELECTRIC SYSTEM
ATTACH TO EXTERIOR OF NET METER PANEL

DUAL POWER SUPPLY
SOLAR ELECTRIC SYSTEM
DISCONNECT
ATTACH TO EXTERIOR OF DISCONNECT ENCLOSURE

NOTES
1. LABELING SHALL BE MADE OF RED REFLECTIVE, WEATHER-RESISTANT MATERIAL WITH WHITE LETTERS.
2. LETTERING SHALL BE A MINIMUM OF 3/8 in TALL.
3. LABELS SHALL BE PERMANENTLY ATTACHED TO APPROPRIATE PANEL.
## Solar System

### General
- **Annual Output**: kWh
- **CEC-AC Rating**: W
- **Breaker Size**: A

### Module(s)
- **Module MFR**
- **Module Model No.**
- **Operating Voltage**: V
- **Max System Voltage**: V
- **Operating Current**: A
- **Short-Circuit Current**: A
- **Max Series Fuse (OCPD)**
- **Max Power**: W
- **Number of Modules**

### Inverter(s)
- **Inverter MFR**
- **Inverter Model No.**
- **Max DC Voltage**: V
- **Max Power**: W
- **Nominal AC Voltage**: V
- **Max AC Current**: A
- **Protection Device Rating**: A
- **Integrated DC Disc.**: Y ☐ N ☐

## Net Metering

### Performance Meter Socket
- **Voltage Rating**: V
- **Current Rating**: A
- **Number of JAWS**
- **Within 10 of Main Service Disconnect**: Y ☐ N ☐

### AC Disconnect
- **Voltage Rating**: V
- **Current Rating**: A
- **Fuse Size (if hard-tapped)**
- **Lockable**: Y ☐ N ☐

### Service Panel
- **Voltage Rating**: V
- **Main Breaker Rating**: A

### Project Information
- **Customer Name**
- **Project Address**
- **Vendor Name**
- **Designer Name**
- **Designer Phone**
- **Designer Email**
- **Est. Completion Date**

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**MID MERCE MERICAN EOCATION DISTRICT**

**CONSTRUCTION STANDARD**

**NET METERING 0-100kW**

**STANDARD #: 55010**

**SHEET: 6 OF 6**

**DESIGN:** JMJ  
**APPROVED:** 12/9/14