

**RULES FOR ELECTRIC METER
& SERVICE INSTALLATIONS**



Customer Reference Specifications: List of Changes: 2012, 2011, 2010	
Complete List of Changes for Sketches: 2011, 2010	
REMSI Rules: List of Changes: 2011, 2010	
DEFINITIONS: List of Changes: 2011	
Approved Metering and Equipment Tables List of Changes: 2012, 2011, 2010	
NOTE 1	All updated sketches have been redrawn for clarity using a new format.
NOTE 2	The 3 phase, 4 wire, 240-single phase 120/240 volts service is now referred to as 3 Phase, 4 Wire, Delta 240/120 Volts.
NOTE 3	Are changing the terms ' meter trough' to 'meter base' and 'meter mounting' to 'meter panel'.

Sketches 2011	
3B	03/18/11 Updated Format and Content
7	03/18/11 Updated Format and Content
7B	03/18/11 New Sketch
8C	08/12/11 Updated Format & Content
8D	08/12/11 New Sketch
<p>Sketch 16 Series – Sketch 16A has been revised, reformatted and updated into a series of sketches:</p> <ul style="list-style-type: none"> o Sketch 16 – up to and including 2000A – 8 conduits o Sketch 16A – up to and including 3000A – 12 conduits o Sketch #16B – up to and including 4000A – 16 conduits 	
20	08/12/11 New Sketch
<p>Sketch 41 Series - 07/29/11 41P1, 41P2, 41AP1, 41AP2, 41BP1, 41BP2, 41CP1, 41CP2, 41DP1, 41EP1 - Updated information on Pad Mount and Pole Top Transformer Labels.</p>	
49	08/12/11 Updated Title & Format
54A	08/12/11 Updated Title & Format
55	08/12/11 Updated Title & Format

Distributed Generation Sketch Series have been updated, expanded and renumbered for organization. Each sheet has had content updated or in new. The new Distributed Generation Series is as follows:

Distributed Generation Organization Map

Metering Type	Voltage		Load Center Bus Bar Rating	Sketch #
Self-Contained	Less than 480 V		Up to and Including 20%	56
			Over 20%	56A
480V Self-Contained	480 V		Up to and Including 20%	57
			Over 20%	57A
CT/Secondary	Less than 600 V		Up to and Including 20%	58
			Over 20%	58A
12 kV	12 kV	Pole Mount	Up to and Including 20%	59
			Over 20%	59A

Sketches 2010

19	04/07/10 New Sketch
25C	04/30/10 Corrected Format, updated drawings, revised title for clarity, added Detail Box
25D	04/30/10 Corrected Format, updated drawings, revised title for clarity, added Detail Box
41 Series	09/17/10 Transfer Switches have been updated and reorganized.
41P1 41P2 41AP1 41AP2	09/17/10 the notes section has been expanded, the drawing updated accordingly and the detail box added.
41BP1 41BP2 41CP1 41CP2 41DP1 41EP1	<p>09/17/10 renumbered to mimic organization of previous 41 Series Sketches. Notes have been expanded, the drawing updated accordingly and the detail box added.</p> <p>Old Numbering:</p> <p>Sketch 41P1 – Manual Transfer Switch – Partial Load – Less than 600V</p> <p>Sketch 41P2 – Manual Transfer Switch – Full Load – Less than 600V</p> <p>Sketch 41AP1 – Automatic Transfer Switch – Partial Load – Less than 600V</p>

	<p>Sketch 41AP2 – Automatic Transfer Switch – Full Load – Less than 600V</p> <p>Sketch 41BP1 – Manual or Automatic Transfer Switch - Partial Load – 12KV Load Center</p> <p>Sketch 41BP2 – Automatic Transfer Switch – Full Load – 12KV Load Center</p> <p>Sketch 41BP3 – Manual or Automatic Transfer Switch – 12KV Switchgear</p> <p>Sketch 41CP1 – Manual or Automatic Transfer Switch – 12KV Switchgear</p> <p>New Numbering:</p> <p>Sketch 41P1 – Manual Transfer Switch – Partial Load – Less than 600V</p> <p>Sketch 41P2 – Manual Transfer Switch – Full Load – Less than 600V</p> <p>Sketch 41AP1 – Automatic Transfer Switch – Partial Load – Less than 600V</p> <p>Sketch 41AP2 – Automatic Transfer Switch – Full Load – Less than 600V</p> <p>Sketch 41BP1 – Manual Transfer Switch – Partial Load – 12KV Load Center</p> <p>Sketch 41BP2 – Manual Transfer Switch – Full Load – 12KV Load Center</p> <p>Sketch 41CP1 – Automatic Transfer Switch – Partial Load – 12KV Load Center</p> <p>Sketch 41CP2 – Automatic Transfer Switch – Full Load – 12KV Load Center</p> <p>Sketch 41DP1 – Manual Transfer Switch – 12KV Switchgear</p> <p>Sketch 41EP1 – Automatic Transfer Switch – 12KV Switchgear</p>
<p>56P1 56P2</p>	<p>10/22/10 Corrected Rule Reference 26 to Rule Reference 28</p> <p>09/17/10 New Sketches</p> <p>Sketch 56P1 – Distributed Generation Sketch – Under 20% Load Center Bus Bar Rating</p> <p>Sketch 56P2 – Distributed Generation Sketch – Over 20% Load Center Bus Bar Rating</p>
<p>56AP1 56AP2</p>	<p>10/22/10 Corrected Rule Reference 26 to Rule Reference 28</p> <p>10/15/10 New Sketches</p> <p>Sketch 56AP1 – Distributed Generation Sketch - Under 20% Load Center Bus Bar Rating – 12KV</p> <p>Sketch 56P2 – Distributed Generation Sketch – Over 20% Load Center Bus Bar Rating – 12KV</p>

56BP1	10/22/10 Corrected Rule Reference 26 to Rule Reference 28 10/15/10 New Sketch Distributed Generation Sketch – Under 20% Load Center Bus Bar Rating
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Customer Reference Specifications: List of Changes - 2012

6-10-165 Outdoor Lighting - Requirements for Service to Customer-Owned Street Lighting Systems Served Under Rate Schedule SE

- 10/31/11 Sheet 1-16
 - Updated wordings of general notes and updated numbers in Sheets 2 and 3.
 - Updated last paragraph in Sheet 4.
 - Updated sheet numbers in Sheet 5.
 - Updated figure and sheet number in Sheet 6.
 - Updated last paragraph and figures number on Sheet 7.
 - Updated sheet numbers in Sheet 8.
 - Updated figure and sheet number in Sheet 9.
 - Updated diagram label in Sheet 10.
 - Updated diagram label in Sheet 11.
 - Updated diagram clearance in Sheet 12.
 - Updated figure number and updated diagram in Sheet 13.
 - Updated diagram label and dimensions. Updated format in Sheet 15.
 - Updated figures, number and fonts.

Customer Reference Specifications: List of Changes - 2011

6-09-194 Overhead Service to Overhead

- 09/08/11 Sheet 1
 - Made into formal title page, content now starts on Sheet 2.
 - Added statement, specifying CRS 6-09-194 is part of the Rules for Electric Meter and Service Installation (REMSI) Website.
- 09/08/11 Sheet 2
 - Split Note 1 into Note 1 and 2.
 - Re-numbered notes accordingly.
 - Updated new Note 4 - ground wire comes from the lightning arrestor cross arm.

- 09/08/11 Sheet 3
 - Updated Bill of Material to meet current requirements.
- 09/08/11 Sheet 4
 - Updated Bill of Material to meet current requirements.
- 09/08/11 Sheet 5
 - Updated drawing notes to match Bill of Material changes.
- 09/08/11 Sheet 6
 - Updated drawing notes to match Bill of Material changes.
- 09/08/11 Sheet 7
 - Metering Compartment Drawing - added references to Note 18 and Note 19.
 - Removed Detail B. Terminal block is to be attached to neutral bar; previously terminal block was attached to the side of the termination compartment.
 - Updated minimum working clear space in front of metering compartment to 9' 0" from 5' 0".

6-09-199 Installation Instructions For 3-Phase, 4 Wire WYE 7,200/12,470V Service Termination and Metering Compartments in Customer-Owned Switchgear

- 09/08/11 Sheet 5
 - Bill of Material item 3 updated.
- 09/08/11 Sheet 7
 - Updated drawing - VT's to be mounted on shelf instead of on back of metering compartment.

6-14-121 Requirements for Trenching and Backfilling by Developer/Customer for Primary and Secondary Installation in a Trench with Only Electric Lines (Non-Joint Trench)

- 09/08/11 Sheet 1
 - Updated title.
 - Made into formal title page, content now starts on Sheet 2.
 - Added statement, specifying CRS 6-14-121 is part of the Rules for Electric Meter and Service Installation (REMSI) Website.
- 09/08/11 Sheet 2

- Added reference to CRS 6-15-180.
 - Updated information in Note 2.
- 09/08/11 Sheet 4
 - Added flow-able fill as a select backfill option
- 09/08/11 Sheet 5
 - Notes expanded to Sheet 5, all pages from this point forward were renumbered accordingly.
- 09/08/11 Sheet 6
 - Updated drawing notes and added more detail on dimensions.
- 09/08/11 Sheet 7
 - Updated drawing for content and clarity.

6-14-122 Requirements for Trenching and Backfilling by Developer/Customer for Primary and Secondary Installation in a Trench with Electric and/or Gas, Telecommunication Lines (Joint Trench)

- 09/08/11 Sheet 1
 - Updated title.
 - Made into formal title page, content now starts on Sheet 2.
 - Added statement, specifying CRS 6-14-122 is part of the Rules for Electric Meter and Service Installation (REMSI) Website.
- 09/08/11 Sheet 2
 - Added reference to CRS 6-15-180.
 - Updated information in Note 2.
- 09/08/11 Sheet 4
 - Added flow-able fill s a select backfill option.
- 09/08/11 Sheet 5
 - Notes expanded to Sheet 5, all pages from this point forward were renumbered accordingly.
- 09/08/11 Sheet 6
 - Updated drawing notes and added more detail on dimensions.
- 09/08/11 Sheet 7

- Updated drawing for content and clarity.
- 09/08/11 Sheet 8
 - Updated drawing for content and clarity.
- 09/08/11 Sheet 9
 - Updated drawing for content and clarity.

Customer Reference Specifications: List of Changes - 2010

6-19-100 Customer Low-Voltage Switchboards Service Cable Terminal Compartment Arrangements and Clearances

- 03/19/10 Sheet 1
 - Made into formal title page, content now starts on Sheet 2.
 - Added statement, specifying CRS 6-19-100 is part of the Rules for Electric Meter and Service Installation (REMSI) Website.
- 03/19/10 Sheet 2
 - Added note 1 – Preapproved List and renumbered notes going forward.
- 03/19/10 Sheet 3
 - In note 6 (previous Note 5) revised to state connectors are of set-screw type, not compression or set-screw as previously stated.
- 03/19/10 Sheet 4
 - In Note 8 (previous Note 7) stated when cable limiters are installed set-screw type bus connectors are not required.
 - Corrected table numbering to Table 1 (previously stated Table 4).
 - Table 2 moved to Sheet 5.
- 03/19/10 Sheet 5
 - Table 4 moved to Sheet 6.
- 03/19/10 Sheet 6
 - Figure 1 moved to Sheet 7.
- 03/19/10 Sheet 7
 - Figure 2 moved to Sheet 8.
- 03/19/10 Sheet 8
 - Figure 3 moved to Sheet 9.
- 03/19/10 Sheet 9
 - Figure 4 moved to Sheet 10.
- 03/19/10 Sheet 10
 - Figure 5 moved to Sheet 11.
 - Added note referring grounding bushings to Note 7 (previously Note 6).
- 03/19/10 Sheet 11
 - Figure 7 moved to Sheet 12 and renumbered to Figure 6.
 - Added note referring grounding bushings to Note 7 (previously Note 6).
- 03/19/10 Sheet 12
 - Previous Sheet 12 deleted - obsolete.
 - Revised dimensions to state 50" (previously 36") required to the side and rear of terminal compartment if access is required.

6-15-180 Customer Installed Duct System

- 03/19/10 Sheet 1
 - Made into formal title page, content now starts on sheet 2.
 - Added statement, specifying CRS 6-15-180 is part of the Rules for Electric Meter and Service Installation (REMSI) Website.
- 03/19/10 Sheet 2
 - Updated wording for consistency, final grade to finished grade.
- 03/19/10 Sheet 4
 - Added language about sweeps to Note 7.
 - Note 9 was note 11 on previous version.
 - All other notes were renumbered accordingly.
- 03/19/10 Sheet 5
 - Added statement to Note 10 that PPL EU will inspect conduit installation prior to being pulled.
 - Added more detail to Note 10 about tamping concrete to ensure conduits are fully encased.
 - Changed title of Note 12 to Pulling Line.
 - Corrected breaking strength of pulling line from 200 to at least 1200 lbs.
 - Added more detail to Note 12 about pulling line requirements.
- 03/19/10 Sheet 6
 - Updated Note References.

6-10-165 Requirements for Service to Customer-Owned Street Lighting Systems Served Under Rate Schedule SE

- 03/19/10 Sheet 1
 - Made into formal title page, content now starts on sheet 2.
 - Added statement, specifying CRS 6-10-165 is part of the Rules for Electric Meter and Service Installation (REMSI) Website.
- 03/19/10 Sheet 2
 - Revised Note 7.
- 03/19/10 Sheet 3
 - Revised Note 14.
- 03/19/10 Sheet 4
 - Revised Support and Support Brackets #1 section to reference REMSI Sketch #47.
 - Revised Identification Section to include pole label information.
- 03/19/10 Sheet 5

- Removed last line of Customer Shall Provide The Following For New Installation #2.
- 03/19/10 Sheet 7
 - Added more detail to first paragraph.
- 03/19/10 Sheet 8
 - Added two notes referenced on sheet marked as * and **.
- 03/19/10 Sheet 9
 - Added one note referenced on sheet marked as *.
 - Updated Dimensions.
 - Noted Drawing is Not to Scale.
- 03/19/10 Sheet 10
 - Added one note referenced on sheet marked as *.
 - Updated Dimensions.
 - Note Drawing is Not to Scale.
- 03/19/10 Sheet 11
 - Note Drawing is Not to Scale.
- 03/19/10 Sheet 12
 - Note Drawing is Not to Scale.
- 03/19/10 Sheet 13
 - Added one note referenced on sheet marked as *.
 - Updated Dimensions.
 - Note Drawing is Not to Scale.

6-09-199 Installation Instructions For 3-Phase, 4 Wire WYE 7,200/12,470V Service Termination and Metering Compartments In Customer-Owned Switchgear

- 02/03/10 Sheet 1
 - Made into formal title page, content now starts on sheet 2.
 - Added WYE to title for clarification.
 - Added statement, specifying CRS 6-09-199 is part of the Rules for Electric Meter and Service Installation (REMSI) Website.
- 02/03/10 Sheet 2
 - Extended review period of unapproved switchgear and termination compartments from 60 to 90 days
 - Notes Section 1 – updated statement to include Point of Contact Document reference.
- 02/03/10 Sheet 3
 - Notes Section 10 – has been expanded to give more detail on conduit runs.
 - Notes Section 12 – hole in door of termination and metering compartments has been changed from ¼" to ½" to accommodate lockable hasp.
- 02/03/10 Sheet 4
 - Notes Section 15 – detail on PPL EU Phase rotation has been added for clarity.
 - Notes Section 18 – has been added.
 - Notes Section 19 – has been added.
 - Bill of Material Chart has been moved to Sheet 5.
- 02/03/10 Sheet 5
 - Termination Compartment Drawing has been moved to Sheet 6
 - Removed Reference to REMSI Sketch #37, Sketch has been Voided.
- 02/03/10 Sheet 6
 - Metering Compartment Drawing has been moved to Sheet 7.
 - Termination Compartment Drawing-Updated minimum working clear space in front of termination compartment to 9'0" from 5'0".
- 02/03/10 Sheet 7
 - Metering Compartment Drawing-Added references to Note 18 and Note 19.
 - Removed Detail B. Terminal Block is to be attached to Neutral Bar; previously Terminal Block was attached to the side of the Termination Compartment.
 - Updated minimum working clear space in front of metering compartment to 9'0" from 5'0".

REMSI RULES: List of Changes - 2011

Rule 1 - 7/29/11

- **Edited Rule 1h**
- **Added Rule 1i**
- **Re-lettered rule accordingly**

Rule 2 – 3/4/11

- **Section B added, following sections re-lettered.**
- **Sections E and F (Formerly D and E) revised.**
- **Note 6 Revised.**

Rule 6 – 10/26/11

- **Section B title updated**
- **Section C title updated and added last two paragraphs detailing rear lot service requirements**

Rule 11B – 10/26/11 Section E added last paragraph detailing rear lot service requirements

Rule 12 – 7/29/11 Added Section j - Grounding

3/4/11 **Section F revised.**

Rule 13 – 10/26/11

- **Section B added exception meter height in flood area**
- **Section C added exception indoor location in flood area**

Rule 15 – 8/12/11 Updated to include Sketch 8D and Sketch 16 Series

3/4/11 **Corrected terminology**

Rule 18 – 8/12/11 Updated to include Sketch 8D and Sketch 16 Series

Rule 19 - 10/26/11 Section G added, re-lettered cut-in card Section H

7/29/11

- **Updated Section b**
- **Inserted Section c - Inspection Exemption - Railroad Not Covered in NEC**
- **Re-lettered rule accordingly**
- **Updated Cut-In-Cards**

Rule 25A – 7/29/11 Updated wording in 25A(a)(1) to remove requirement of

installation and annual maintenance fees on demand pulse contracts.

REMSI RULES: List of Changes - 2010

Rule 1 – 7/22/10 Sections H and K have been updated

Rule 15 – 12/23/10 Update and clarify Note H details

Rule 18 – 12/23/10 Update and clarify Note G details

Rule 33 – 4/29/10 Added Sections E (Power Quality), F (Harmonics), and G (Harmonics: Criteria to Limit Voltage Distortion Due to Single Customer)

List of Changes – Definitions - 2011

10/26/11 – Added/revise the following definition:

- **Roadway**

3/4/11 – Added/revise the following definitions:

- **Current Transformer Mounting Bridge**
- **Foreign Energy Source**
- **Junction Box**
- **Metering Equipment**
- **Point of Interconnection**
- **Renewable Energy Source**
- **Service Termination Compartment**

Approved Metering and Equipment Tables List of Changes: 2012

01/05	Approved Meter Services Devices - Table 11 – Revised Catalog # for Midwest, R-100C with MSBN1A and RS 250C with MSBN1A. Added New Model R-102CB2 with MSBN1A
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Approved Metering and Equipment Tables List of Changes: 2011

04/13	Approved Meter Services Devices - Table 11 - Added Eaton to name: Eaton/Cutler Hammer. Added New Approvals Catalog #ECP511B Series, and #ECP521B Series
04/20	Approved Switchgear Metering & Termination Compartments - Table 1 - Added Eaton to name: Eaton/Cutler Hammer. Updated Drawing # 42C1054, Sheets 1, 2, Issued Revision 13
04/20	Approved Switchgear Metering & Termination Compartments - Table 2 - Added Eaton to name: Eaton/Cutler Hammer. Updated Drawing # 42C1054, Sheets 1, 2, Issued Revision 13
05/31	Approved Instrument Transformer Cabinets - Table 6 - Added PENN PANEL as a manufacturer. Added new catalog listing PPL-724812.
08/12	NEW TABLE – Pad Mounted Metering and Termination Compartment Table
08/12	NEW TABLE – Connector Table

Approved Metering and Equipment Tables List of Changes: 2010

12/15	Approved Meter Services Devices - Table 3 - Added Eaton/Cutler Hammer Catalog #CH9564K7
12/15	Approved Meter Services Devices - Table 4 - Added Eaton/Cutler Hammer Catalog #CH9564K7
12/30	Automatic Transfer Switch Table Updated - additional approved automatic transfer switches added

02/07/2012