

DUKE ENERGY COMPREHENSIVE DISTRIBUTION CONSTRUCTION SPECIFICATIONS

In this documentation package, Duke provides comprehensive construction specifications in effect on July 1, 2021, to the Interconnection Customer. Interconnection Customer shall reference these materials in the self-administered compliance program.

The following Duke Energy documents are included in this package. It is important for the Interconnection Customers to keep copies of these files for future reference.

- 1. DEC Distribution Standards Manual, June 30, 2021** (DEC Distribution Standards Manual - June 30, 2021.pdf)

This manual is the comprehensive distribution construction specifications for facilities in Duke Energy Carolinas (DEC). The table at the bottom right corner of each page illustrates the applicable jurisdiction. All contents in this DEC manual apply to DEC.

							
DEC	DEM	DEP	DEF	DEC	DEM	DEP	DEF
X				X	X	X	X
01.00-00A				01.01-100			

This DEC Distribution Standards Manual is composed of the following highlighted documents on the contractor portal.

Distribution Standards Manuals
 DEM-Enterprise Wide
 DEC-Enterprise Wide
 DEC-DEM Distribution Stds Manual - Pt 1
 DEC-DEM Distribution Stds Manual - Pt 2
 DEC-DEM Distribution Stds Manual - Pt 3
 DEC-DEM Distribution Stds Manual - Pt 4
 DEP OH sections 1-4 Distribution Standards
 DEP OH sections 5-13 Distribution Standards
 DEP UG Distribution Standards
 DEF OH sections 1-4 Distribution Standards Manual
 DEF OH sections 5-13 Distribution Standards Manual
 DEF UG Distribution Standards Manual
 Florida 25kV Construction
 Florida White Book Requirements for Electric Service and Meter Installations

The table of contents in the DEC Distribution Standards Manual is as follows.

<ul style="list-style-type: none"> >  01-Overhead >  02-Poles, Guys And Anchors >  03-Primary Construction Overhead >  <u>04-Overhead Primary Connectors</u> >  05-Conductors Overhead >  06-Pole Mount Transformers >  07-Capacitors And Regulators >  08-Switches And Protective Devices >  09-Sensors >  10-Clearances & Joint Use >  11-Metering >  12-Coastal And Contaminated Installations >  13-Overhead Company Owned Communication Equipment >  15-Distributed Energy Resources >  16-Enterprise Wide Metering 	<ul style="list-style-type: none"> >  20-Underground General >  21-OH-UG Transition >  22-Trenching And Conduit >  23-Conductors UG >  24-Pads, Pullboxes >  25-Enclosures, Pedestals >  26-Cable Accessories >  27-Pad Mount Transformers >  28-Switchgear >  29-Vaults and Manholes >  30-Street And Area Lighting >  32 - Pad-Mounted Capacitors >  35 - Underground Company Owned Communication Equipment >  36-Underground Clearances and Joint Use >  60- D-D Substations
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This DEC manual also contains the legacy Duke Energy standards.

-  **LEGACY**
- >  Overhead
- >  Reclosers
- >  Regulators
- >  Capacitors
- >  Underground Sectionalizing Equipment
- >  Duct Bank Systems
- >  Pads
- >  Fusing

The legacy Duke Energy Standard *88420DUK, 4kV-25kV Primary Metering Overhead to Overhead WYE Construction* may be useful for meter pole inspection at some DER facilities. The meter pole design is further discussed in the **DER Construction Reference Guide** (see #5).

2. DEP Distribution Standards Manual, June 30, 2021 (DEP Distribution Standards Manual - June 30, 2021.pdf)

This manual is the comprehensive distribution construction specifications for facilities in Duke Energy Progress (DEP). All contents in this DEC manual apply to DEP.

This DEP Distribution Standards Manual is composed of the following highlighted documents on the contractor portal.

Distribution Standards Manuals
DEM-Enterprise Wide>
DEC-Enterprise Wide>
DEC-DEM Distribution Stds Manual - Pt 1>
DEC-DEM Distribution Stds Manual - Pt 2>
DEC-DEM Distribution Stds Manual - Pt 3>
DEC-DEM Distribution Stds Manual - Pt 4>
DEP OH sections 1-4 Distribution Standards>
DEP OH sections 5-13 Distribution Standards>
DEP UG Distribution Standards>
DEF OH sections 1-4 Distribution Standards Manual>
DEF OH sections 5-13 Distribution Standards Manual>
DEF UG Distribution Standards Manual>
Florida 25kV Construction>
Florida White Book Requirements for Electric Service and Meter Installations>

The table of contents in the DEP Distribution Standards Manual is as follows.

> 01-Overhead	> 20-Underground General
> 02-Poles, Guys And Anchors	> 21-OH-UG Transition
> 03-Primary Construction Overhead	> 22-Trenching And Conduit
> 04-Overhead Primary Connectors	> 23-Conductors UG
> 05-Conductors Overhead	> 24-Pads, Pullboxes
> 06-Pole Mount Transformers	> 25-Enclosures, Pedestals
> 07-Capacitors And Regulators	> 26-Cable Accessories
> 08-Switches And Protective Devices	> 27-Pad Mount Transformers
> 09-Sensors	> 28-Switchgear
> 10-Clearances & Joint Use	> 29-Network, Vaults and Transclosures
> 11-Metering	> 30-Street And Area Lighting
> 12-Coastal And Contaminated Installations	> 32 - Pad-Mounted Capacitors
> 13-Overhead Company Owned Communication Equipment	> 34-Transformer Rated Metering
> 15-Distributed Energy Resources	> 35 - Underground Company Owned Communication Equipment
> 16-Enterprise Wide Metering	> 36-Underground Clearances and Joint Use
	> 60- D-D Substations

3. DEM Distribution Standards Manual, June 30, 2021 (DEM Distribution Standards Manual - June 30, 2021.pdf)

This manual is the comprehensive distribution construction specifications for facilities in Duke Energy Midwest (DEM).

The only relevant page in this DEM manual is in *Section 21.05-130 Three Phase Riser with Power Fuses on Horizontal Construction*. DEC and DEP do not have risers with power fuses. However, some DER interconnection customers may have installed risers with power fuses at the DER facilities.

4. Duke Energy Requirements for Electric Service and Meter Installations, June 2021 (Service Requirements Manual - June 2021.pdf)

This document is sometimes called the “White Book” that contains Distribution System interconnection requirements in both DEC and DEP.

5. Reference Guide of Duke Energy Construction Standards to Connect DER Facilities to Duke Energy Distribution System, Version 4, July 2021 (DER Interconnection Construction Reference Guide_Ver4 Jul 2021.pdf)

This Guide is a set of distribution standards that covers many of the construction standards required during the construction of AC facilities at DER sites. The red boxes and comments added to the Duke Energy Distribution Standards Manual drawings are meant to focus attention on specific details. They are not an indication that other aspects of the standard are not required or important. The user must continue accessing the Duke Energy Distribution Standards Manual for the latest updates and standards not covered in this Guide.

Each jurisdiction’s Duke Energy Distribution Standards Manual can also be accessed through the Duke Energy contractor portal. Interconnection Customers are welcome to reference and follow the latest Duke Energy specification through the contractor portal. However, please be noticed that the contractor portal is regularly updated to post only the newest version of the Distribution Standards Manual. And the file structure on the contractor portal may be slightly different.

The Duke Energy Distribution Standards Manual presents the drawings together with the Bill of Materials (BOM), which provides the specification of materials and equipment. Wesco T&D supply chain stocks and supplies most of the approved Distribution Materials and Equipment for Duke Energy. For questions and assistance with these materials and equipment, DER developers can contact Cody Coor, 919-831-4655, ccoor@wesco.com.

Revision History

Revision	Date	Comments
1.0	9/28/2021	Initial release
1.1	11/4/2021	Apply to all IC in general