ESRM Revisions – May 15, 2026

Section	Revision
Cover & Multiple Sections	Updated ESR manual cover page and multiple sections with NEC spelling from “Electric” to “Electrical”.
100, 104.11-1	Updated ESRM 104.11-1 placard, note 2 and note 3 has “Switch” removed.
100, 104.11-2, 104.12-2	Updated ESRM 104.11-2 with the removal of “Switch” and 104.12-2 with the removal of “Disconnect Switch”.
100, 104.11-2	Updated ESRM 104.11-2 placard, note 2.
100, 104.12	Clarified ESRM 104.12 to include an alternate multi-step solution to address main-tie-main configurations where isolation devices listed to UL 98 or UL 1008 are not available/practical.
100, 104.12-3	Created ESRM Paragraph “104.12-3 NON-INTERCONNECTED GENERATION SYSTEMS” that lists requirements for transfer equipment between APS utility source and backup on-site generator(s).
300, 301.7	Clarified ESRM 301.7 with the addition of note 3, expounding upon minimum workspace requirements.
300, 301.9	Corrected ESRM 301.9 Subsection name. NESC Requirements callout location adjusted to be above figures.
300, 303.6-3	Updated ESRM 303.6-3 with the removal of “Disconnect Switch”.
500, 501.0	Updated ESRM 501.0 to include language for the number of conduits listed for each SES based on rating/size and the minimum quantity required.
500, 501.1-1	Updated ESRM 501.1-1 paragraph name to “Single Residential Meter Single Phase U.G. Riser Size”.
500, 501.1-2	Updated ESRM 501.1-2 paragraph name to “COMMERCIAL AND MULTI-FAMILY RESIDENTIAL SINGLE PHASE U.G. RISER SIZE”. The note at the bottom of the list was removed.
500, 501.1-3	Updated ESRM 501.1-3 with the note removal at the bottom of the list.

ESRM Revisions – November 15, 2025

Section	Revision
100, 103.8, 104.11	ESRM 103.8 adds APS VEHICLE ACCESS definition. ESRM 104.11 editorial correction to capitalize Interconnection Requirements.
300, 301.4, 301.5, 301.8, 305.2, 306.1	Clarified vehicle access requirements within ESRM 301.4 (Item 1.a), 301.8 (Item 2.a), and 301.8 (new Item 20). Corrected ESRM 305.2 heading and 306.1 (Item 2.c) duplication of "TO APS".
1000, 1000.4	Clarified ESRM 1000.4 primary metered switchgear working space requirements.
1300, 1301.2-2	Clarified ESRM 1301.2-2 vehicle clearance requirements to be minimum 8 feet vertical and minimum 11 feet horizontal.

ESRM Revisions – July 09, 2025

Section	Revision
100, 104.11, 104.11-1	Clarify ESRM 104.11-1 to state the synchronous generator neutral shall not be floating. ESRM 104.11 Interconnection documentation access guide updates.
300, 302.1	Clarified ESRM 302.1 to correct the spelling of 'micarta'.
300, 304.5 Details 1 & 2	Clarified ESRM 304.5 Details 1 and 2 to update the SES concrete pad leveling and sloping requirements under and outside the SES cabinet footprint. For example, "the concrete pad needs to be level under the SES cabinet and the concrete pad needs to be sloped between 1/8-inch min to 1/4-inch max outside the SES footprint area".
300, 306.0	Clarified ESRM 306.0 headers to include "H-frame".
300, 306.1	Created ESRM 306.1 to describe the requirements for service equipment that is not secured to a permitted structure.
300, 307.0	Page number advanced.
500, 501.5, Table 502.3	Updated ESRM 501.5 and Table 502.3 to describe the SES riser-to-SES enclosure connectors shall be Schedule 80 utilizing curved neck coupler. NOTE: Customers are strongly encouraged to use Schedule 80 connectors and no longer use Schedule 40 connectors. However, customers could continue using their existing stock of Schedule 40 connectors instead of Schedule 80 connectors during the grace period that ends on January 1, 2026. After January 1, 2026, customers shall use Schedule 80 connectors only.

ESRM Revisions – November 15, 2024

Section	Revision
Multiple	Revised multiple sections throughout the ESRM and updated the cited voltages to conform with the voltage nomenclature per ANSI C84.1-2020, "Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)".
100, 100.5	Retitled the section 100.5 heading from "Codes" to "Codes and Standards." Clarified the ESRM requirements supplement the currently applicable NESC, NEC, Municipal, County or State Codes, Ordinances or regulations within the State of Arizona.
400, 402.2-1	Clarified the requirements for customer-provided service wood pole markings (ESRM 402.2-1).
400, 402.3	Steel and wood pole sizing tables (ESRM 402.3).
400, 402.5-1 & -2	Clarified the requirements for typical pole-mounted meter installations for residential, commercial or temporary services (ESRM 402.5-1). Established certain customer service pole installations and associated requirements as "maintenance only".

ESRM Revisions – May 15, 2024

Section	Revision
300, 301.8-1, -2, -3	Clarified barrier post, working space, and escape route requirements for service equipment configurations. Deleted 301.8-3.
300, 301.15-3	Deleted the text at the end of 301.15-3 that incorrectly duplicates the text in the first paragraph of ESRM 301.16.
300, 304.5-1.0	Clarified working space and escape route requirements for outdoor service entrance section pads. Added cross-reference to 301.8 for barrier post placement requirements. Added cross-reference to ESRM 1000 for medium voltage concrete pad working space requirements.
500, 502.8, Fig. 3	Changed 502.8 heading to Service Conduits Under Foundation and clarified spacing between spacers in typical duct installation is 6 feet.
1100, 1101.1	Delete the drawings 1101.1, "Low-Profile Switchboard".
1100, EUSERC DWG 309	Delete the drawings EUSERC 309, Sheets 1 & 2 "Commercial Fixed Top Service Pedestals 0-200 Amperes, 0-600 Volts".

ESRM Revisions – November 15, 2023

Section	Revision
300, 301.2-1	Corrected the Note 4 incomplete sentence to state "IT IS THE CUSTOMER'S

	RESPONSIBILITY TO INSTALL CONDUIT AND WIRING BETWEEN THE METER LOCATION AND THE POINT OF ATTACHMENT."
300, 306.0	Deleted the SES riser sizes specified in Note 8 because the information is correctly specified in ESRM 501.1-3.
400, 401.9	Added MIN to the 18" dimension ("18" MIN") describing the unbraced minimum height above the roof for the service drop conduit point-of-attachment.
1000, 1000.1.C	Clarified "customers must notify APS Representative prior to implementing any proposed protective device changes at any time throughout the lifetime of the facilities."

ESRM Revisions – May 15, 2023

Section	Revision
300, 301.2-1	Clarify metering service location identification requirements.

ESRM Revisions – November 15, 2022

Section	Revision
300, 303.6-1	Added additional guidance.
300, 304.5-1	Added to note 5 for SES pad details and note reference added to Detail 2.
300, 304.6	Added note 5.
300, 306.0	Section Header name updated.
300, 306.0	Clarified Note 13.
400, 402.2	Clarified Customer Provided and Customer Owned wood poles.
500, 506.8-1	Added details to note 7.
900, 900.6	Added note 8.
900, 900.7	Added note 6.
1300, 1301.2-1	Clarity on letter height requirements.

ESRM Revisions – May 15, 2022

Section	Revision
100, 104.11	Added cross-reference to the APS Interconnection Requirements Manual for distributed Generation requirements at aps.com/dg.
300, 302.1	Added cross-reference to the APS Interconnection Requirements Manual for all interconnect label requirements at aps.com/dg.
700, 701.0, Notes 2 & 3	Clarified Note 2 is for sizing conductor used for bonding unfused nipples and equipment. Clarified Note 3 is for sizing main bonding jumper, system bonding jumpers, and supply-side bonding jumpers from equipment grounding bus to neutral bus, per NEC. Corrected NEC 250.66 to NEC 250.102(C)(1) in Column 3 heading.

ESRM Revisions – March 02, 2022

Section	Revision
300, B	Changed 302.13 section description to “Reserved”.
302.13	Removed obsolete text, changed 302.13 to “Reserved”
303.1	Removed item 3. No longer applicable.

ESRM Revisions – January 27, 2022

Section	Revision
100, B	Inserted new 102.29 & 102.30 definitions.
100, C	Add 104.9 & 104.10 definitions.
100, 102.7	Add 'Generator' to clarify ESRM 102.7 heading.
100, 102.29	Add 'Switchboard' definition.
100, 102.30	Add 'Switchgear' definition.
100, 104.11-1	Update ANSI Z535.1-1998 to newer ANSI Z535.1-2011 version, & Grammatical errors corrected.
100, 104.11-2	Clarify customer rack-out breakers do not meet visual open requirements, and add placard/warning label requirements.
200, A	Clarify Primary Service (medium voltage range), (601V to 15kV).
200, 201.6	Clarify Primary Service, medium voltage range (601V to 15kV).
300, A	Add Equipment Working Space and Escape Route & Alternate Escape Route.
300, B	Update Service Section to Service Entrance Section.
300, C	Update Outdoor Service Entrance Section titles, add Outdoor Service Entrance Section Pads in Remote Locations with No Access to Water, & Indoor Service Entrance Section Housekeeping Pads.
300, 301.7	Clarify notes for working, clearance, and escape route requirements and updated detail.
300, 301.8, -1 to -3	Clarify barrier post, escape route, and service equipment requirements and added supporting details.
300, 301.15	Update Figures 3 & 4 and add Figures 5 & 6 to clarify the separation Requirements between meters and other utility meters/fuel sources.
300, 302.3-1, 302.9	Wording change switchgear to switchboard.
300, 302.11	Change service section to service entrance section.
300, 302.12	Clarify customer drawing submittal requirements per ESRM 302.9.
300, 304.5, -1 to -3	Clarify escape route, barrier post & equipment pad requirements and add detail and notes for pads where no access to water.
300, 304.6	Add 'Housekeeping Pads' to clarify ESRM 304.6 heading.
800, 800.4	Delete ESRM 800.4.
1000, A	Clarify heading with added text 601V-15V, wording change to 1000.4 from switchboard to switchgear.
1000, 1000.0	Change switchboard to switchgear.
1000, 1000.1	Update voltage for note B to 12.47kV.
1000, 1000.2	Change switchboard to switchgear.
1000, 1000.7	Change switchboard to switchgear.
1000, 1000.9	Change switchboard to switchgear.
1000, 1000.15	Change switchboard to switchgear.
1100, C	Add 407/APS addendum to EUSERC.
1100, 1100.2	Clarify customer drawing submittal requirements per ESRM 302.9.
1100, 407/APS	Clarify 15KV CT designs require 2-bolt, 22-inch between 0 & 1200 Amps.
1300, 1301.2	Clarify high rise APS meters are acceptable at the main SES location.
1400, A	Add sections 1400.3, 1400.3-1, 1400.3-2
1400, 1400.3, -1 & -2	Add new ESRM 1400, 1400-1 & -2 equipment accessibility requirements.

ESRM Revisions – May 10, 2021

Section	Revision
200, 201.2	Added 1200A limitation for SESs greater than 600V.
300, 301.8	Clarified SES concrete pad requirements.
300, 301.15	Added note 4 to clarify 48-inch minimum separation to gas stub out.
300, 302.3-1	Added service disconnect allowable ampacity requirements.
300, 302.9	Updated approval requirements for metering in service equipment.
300, 304.5, 304.5-1 & -2	Clarified SES concrete pad requirements.
300, 304.6	Update note 1 for not greater than 2-1/2 inches housekeeping pad.
400, 401.1	Adding missing note 4 regarding 10 ft. rule.
400, 401.7	Clarified OH service conductor 5 ft. radial clearance.
400, 402.3	Updated notes to clarify pole wrap and steel pole requirements.
600, 602.1-1, 2 & 3	Updated trench figures.
1000, 1000.2-1	Added 1200A limitation for SESs greater than 600V
1000, 1000.3	Clarified manufacturer drawings for approval submittal requirements.
1100, 305	Clarified voltage range is 0 to 600V (not 0 to 800V).
1100, 401/APS	Added notes 7 (1200A SES limitation) and 8 (reference to ESRM 1000.4).
1400	New section 1400 for vehicle approach requirements near APS equipment.

ESRM Revisions – February 20, 2019

Section	Revision
100, 104.1	Added missing text back into manual regarding underground riser.
100, 102.19-5	Added missing text back into ESRM regarding customer-owned UG conduits.
100, 104.1	Added missing text back into manual regarding underground riser.
100, 104.7.1	Harmonic Study Policy with 08/31/17 revision date.
200, 200.2-2	Added missing text regarding upgrading the service.
200, 201.3	Added missing text regarding maximum single phase motor size is 25 HP.
200, 201.7	Paragraph added on Service Voltage Ranges.
200, 201.8	Paragraphs added on Power Quality Investigation.
300, 301.4	Added clarification to note 3 regarding permanent ID tagging.
300, 301.6	Added Note to bottom of paragraph regarding unacceptable panel locations.
300, 301.7	Added note 2 regarding workspace requirements.
300, 301.9	Added to meter room requirements regarding access to interior of building.
300, 301.9	Clarified requirement for meter closets.
300, 301.11 & 301.11-1	Clarified requirement for meter closets.
300, 301.15-1, 2, & 3	New requirements for electric meter clearance to fuel sources.
300, 302.14	Updated meter types used on APS system.
400, 400.1	Added missing note to bottom of paragraph regarding attachment tensions.
400, 401.1	Deleted unnecessary note 4 and re-numbered.
500, multiple locations	Clarified UG conduit is customer-owned.
500, 501.1	Clarified UG riser sizes are minimum sizes required.
800, entire section	Updated multiple fault current tables.
900, 900.1	Clarified in note 6 that disconnects "simultaneously" open all conductors.
1100, entire section	Added updated EUSERC drawings and updated APS addendums.