

## Revisions for the 2015 Edition of the "Specifications and Requirements for Electric Installations (Bluebook)"

| <u>PAGE NUMBER OF 2015 EDITION</u> | <u>PAGE NUMBER OF 2007 EDITION</u> | <u>SECTION</u>     | <u>REVISION</u>   | <u>RATIONALE</u>  |
|------------------------------------|------------------------------------|--------------------|---|---|
| Front Cover                        | Front Cover                        |                    | Updated Central Hudson Gas & Electric logo to current logo.   | Consistency with other publications made available to our customers.  |
| Front Cover                        | Front Cover                        |                    | Updated Dig Safely New York Logo.   | Dig Safely New York's information has changed. Provide correct information to Customers.                    |
| i                                  | i                                  |                    | Updated Kingston's office address   | Provide correct information to Customers.   |
| i                                  | i                                  |                    | Added Gas Odor Hotline Phone Number   | Provide Customers with important information.   |
| 1                                  | 1                                  | 1.3 Rate Schedules | Revised Company website address to:<br><a href="http://www.CentralHudson.com/rates">www.CentralHudson.com/rates</a> .                         | Provide precise location of information instead of whole Company website.                                   |
| 3                                  | 3                                  | 1.10 Power Quality | Revised ANSI C84.1 reference to be the 2011 edition instead of the 1995.<br><br>Updated lower limit of services over 600V from -2.0% to -2.5% | Use most current code version in the specifications and meet the requirements of the most recent edition.   |
| 4                                  | New                                | 2. Definitions     | Added definition for "Cold Sequence"  | Provide definitions frequently used by Company personnel  |
| 4                                  | New                                | 2. Definitions     | Added definition for "Disconnecting Means"  | Add definition used throughout these specifications and in the NEC to match the definitions in the 2014 NEC |
| 4                                  | 4                                  | 2. Definitions     | Revised the definition of "Ground"  | Update the definition to match the current definitions in the 2014 NEC.                                     |
| 4                                  | 4                                  | 2. Definitions     | Revised the definition of "Grounded (Grounding)"  | Update the definition to match the current definitions in the 2014 NEC.                                     |

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| 4 | New | 2. Definitions | Added definition for “Hot Sequence”   | Provide definitions frequently used by Company personnel                          |
| 5 | 5   | 2. Definitions | Revised the definition of “NEC” to include “NFPA 70-2014”                   | Provide official name and year of code referenced throughout these specifications |
| 5 | 5   | 2. Definitions | Revised the definition of “NESC” to include “IEEE C2-2012”                  | Provide official name and year of code referenced throughout these specifications |
| 5 | 5   | 2. Definitions | Added definition for “Photovoltaic (PV) System”                             | Added term used in these specifications to match the 2014 NEC definition          |
| 5 | 5   | 2. Definitions | Added definition for “RMC”  | Defined acronym used by the NEC and throughout these specifications               |
| 6 | 5   | 2. Definitions | Revised the definition of “Separately Derived Systems”                      | Update the definition to match the current definitions in the 2014 NEC.           |
| 6 | 5   | 2. Definitions | Revised the definition of “Service Conductors”                              | Update the definition to match the current definitions in the 2014 NEC.           |
| 6 | 5   | 2. Definitions | Added definition for “service conductors, overhead”                         | Added term used in these specifications to match the 2014 NEC definition          |
| 6 | 5   | 2. Definitions | Added definition for “service conductors, underground”                      | Added term used in these specifications to match the 2014 NEC definition          |
| 6 | 5   | 2. Definitions | Revised the definition of “Service Drop”                                    | Update the definition to match the current definitions in the 2014 NEC.           |
| 6 | 6   | 2. Definitions | Revised the definition of “Service-entrance conductors, overhead system”    | Update the definition to match the current definitions in the 2014 NEC.           |
| 6 | 6   | 2. Definitions | Revised the definition of “Service-entrance conductors, underground system” | Update the definition to match the current definitions in the 2014 NEC.           |
| 6 | 6   | 2. Definitions | Revised the definition of “Service Lateral”                                 | Update the definition to match the current definitions in the 2014 NEC.           |

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| 6  | 6   | 2. Definitions                               | Revised the definition for “Temporary Service” to add language to indicate 90 day max installation limit for non-construction related installations.   | Indicate NEC 590.3 requirement that temporary services are only allowed for a certain time frame (90 days or when construction is complete). |
| 7  | 7   | 3.1.1 Accepted Format                        | Added website for new service request forms and email for new business desk  | Adding available application submission methods to the Blue Book.  |
| 8  | 8   | 3.5 Secondary Voltages Available             | Replaced “low” with “secondary” in paragraph and table 3.5   | Consistency of vocabulary in these specifications  |
| 9  | 9   | 3.8.4 Emergencies and Inspection Requirement | Added 10 day waiver requirements and inspection responsibilities to section  | Update to reflect current practice and clarify requirements.   |
| 9  | New | 3.8.5 Connections to Movable Structures      | Added section detailing no direct connection to movable structures.  | Currently weatherheads are being installed on movable structures in violation of NEC & Company policy.                                       |
| 11 | 10  | 4.1.1 Number of Services                     | Added reference to NEC 230.2   | Indicate the section of the NEC where it discusses where more than one service is allowed.   |
| 11 | 10  | 4.1.2 Route of Service                       | Removed “Generally” from 2 <sup>nd</sup> sentence and added “public” for description of pools.   | Correction and clarification of pool types   |
| 11 | 10  | 4.2.1 Responsibility                         | Revised to indicate the customer requirements where the line exceeds the allowance in the tariff.  | Clarify Customer responsibility.   |
| 12 | 11  | 4.2.3 Service Attachment                     | Revised paragraph to require thru bolts (One point racks) not screw-in porcelain insulators.   | Better, more reliable installation.  |
| 12 | 11  | 4.2.4 Clearances                             | Added “private” to differentiate between public and private pools and added requirements for public pools. Indicated the Company would prefer private pool installations matched public pools for overhead electric lines. | NYS Sanitary Code part 6-1.17(i) requires all electric overhead lines be 20’ clear of public pools horizontally.                             |
| 12 | 11  | Table 4.2.5                                  | Revised note #4 to reference NEC section 230.24  | Corrected note to conform to NEC   |

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| 13      | 12 | 4.2.8.1 General                         | Added small (320A and less) single phase commercial customers to the disconnect/reconnect program  | Revised to reflect current Company policy   |
| Removed | 13 | 4.3.1.2 Public Authority Request        | Removed section<br>Renumbered following subsections in section 4.3.  | Section doesn't follow Company policy for a majority of installations.              |
| 14      | 13 | 4.3.1.2 Customer Request                | Revised section to remove installation requirement of pull box between company pole and service point for underground services.<br>Clarified ownership of highway crossing poles, and revised wording to match terminology used throughout these specifications. | Clarify installation practices in these specifications and use correct terminology. |
| 15      | 14 | 4.3.3 Cable & Cover Requirements        | Require conduit for all double secondary service runs.   | Protect cable from damage/loss of a run which will overload the other.              |
| 15      | 14 | 4.3.4 Backfill                          | Identified figure where backfill information can be found.   | Clarification.  |
| 15      | 14 | 4.3.5.1 Requirements and Specifications | Identified that the risers shall be installed on the non-traffic side of the pole unless impeded by other utilities or other obstacles.  | Install risers away from traffic to provide protection from potential damage.       |
| 15      | 14 | 4.3.5.1 Requirements and Specifications | Indicated galvanized steel conduit shall be RMC type   | Use NEC designations  |
| 15      | 14 | 4.3.5.1 Requirements and Specifications | Revised section to clarify ownership and responsibility of Customer owned riser poles.   | Clarification of responsibilities.  |
| 15      | 14 | 4.3.5.1 Requirements and Specifications | Removed "holes" from last paragraph and added reference to Figure 21 for adequate drainage.  | Clarification   |
| 15      | 14 | 4.3.5.2 Grounding                       | Indicated galvanized steel conduit shall be RMC type   | Use NEC designations  |
| 15      | 14 | 4.3.5.2 Grounding                       | Removed the requirement for insulated ground conductor   | Clarification   |
| 16      | 15 | 4.3.6 Conduit to Outdoor Meter          | Indicated galvanized steel conduit shall be RMC type   | Use NEC designations  |

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| 18 | 16 | 4.5.2.2 Application Requirements                     | Added landscaping features to required information and required all electrical conduit and cables under sidewalks and roads shall be in conduit  | Clarification on Company requirements   |
| 18 | 17 | 4.5.2.3 Responsibility and Installation Requirements | Revised section to clearly indicate responsibility of equipment and use quantity of lots in URD to make the distinctions instead of date of install to differentiate different types of installations. | Revised section to follow current Company policy.   |
| 18 | 17 | 4.5.2.4 Additional Requirements                      | Require conduit for all double secondary service runs.   | Protect cable from damage/loss of a run which will overload the other.  |
| 19 | 18 | 4.5.3.1 General                                      | Added "large" to "commercial complexes" and removed stipulation providing underground to Customer's supplied overhead  | Clarify that only large commercial complexes meet the requirements for this section and revised section to conform to Company policy. |
| 19 | 18 | 4.5.3.2 Application Requirements                     | Added landscaping features to required information and required all electrical conduit and cables under sidewalks and roads shall be in conduit  | Clarification on Company requirements   |
| 20 | 19 | 4.6.1 General  | Added "Company's standards" to list of codes and standards the installation must meet  | Clarification   |
| 20 | 19 | 4.6.2 Location                                       | Replaced "bucket truck" with "37,000 pound material handling line truck"   | Revised to follow Company standard designations and indicate size of truck  |
| 20 | 19 | 4.6.4 Pole Specifications                            | Revise typical class of pole used at service point from a Class 4 to a Class 2 and revised paragraph to be clearer the equipment required.   | Revised to follow current Company standards   |
| 20 | 19 | 4.6.4 Pole Specifications                            | Revised "Table 4" with "Table 4.6.4"   | Clarification   |
| 21 | 19 | 4.6.4 Pole Specifications                            | Added types of cables typically installed on certain pole heights to Table 4.6.4   | Clarification   |
| 21 | 19 | 4.6.5 Clearances                                     | Added "Company's standards" to list of codes and standards the installation must meet  | Clarification   |

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| 21 | 20 | 4.6.6 Anchors and Guys                                     | Revised minimum guy size to 5/16".   | Revised to follow current Company standards  |
| 21 | 20 | 4.6.7 Types of Construction                                | Revised cross-arm specification to always be treated   | Clarification  |
| 22 | 20 | 4.6.9 Transformers   | Replaced "bucket truck" with "37,000 pound material handling line truck"   | Revised to follow Company standard designations and indicate size of truck                                       |
| 22 | 20 | 4.6.9 Transformers   | Revise typical size of pole used with transformers from a 40 foot to a 45 foot pole  | Revised to follow current Company standards  |
| 22 | 21 | 4.6.12 Excavation and blasting                             | Revised notification period to 2-10 days before excavation, note including the day of the call. Added reference to NYS Code Rule 753-3.1-2012. | Revised to match updated NYS Code Rule 753-3.1 amended in Jan 2012 and provided code requiring the notification. |
| 22 | 21 | 4.7 Customer-Owned Underground Primary Service Connections | Added "Primary" to title of section  | Clarification  |
| 22 | 21 | 4.7.1 General  | Revised 15KV to 34.5KV   | Clarify that the Company has distribution voltage up to 34.5KV   |
| 22 | 21 | 4.7.1 General  | Added "Company's standards" to list of codes and standards the installation must meet  | Clarification  |
| 23 | 22 | 4.7.4 Primary Cable Installations                          | Revised first paragraph to indicate locations of 34.5KV distribution lines in the Company's system   | Clarification  |
| 23 | 22 | 4.7.4 Primary Cable Installations                          | Revised section to require jacket covering neutrals on primary cable.  | Updated to follow current industry practices   |
| 24 | 22 | 4.7.5 Riser Pole and Associated Terminations               | Identified that the risers shall be installed on the non-traffic side of the pole unless impeded by other utilities or other obstacles.        | Install risers away from traffic to provide protection from potential damage.                                    |
| 24 | 22 | 4.7.5 Riser Pole and Associated Terminations               | Indicated galvanized steel conduit shall be RMC type   | Use NEC designations   |
| 24 | 22 | 4.7.5 Riser Pole and Associated Terminations               | Removed "holes" from last paragraph and added reference to Figure 21 for adequate drainage.  | Clarification  |

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| 24      | 23 | 4.7.5 Pole Riser and Associated Terminations        | Revised section to clarify ownership and responsibility of required Customer owned poles on Customer owned primary services | Clarification of responsibilities.   |
| 24      | 23 | 4.7.6 Transformers                                  | Added language for transformers being farther than 10' from driveway or road if approved by Company                         | Clarification on current Company policy  |
| 24      | 23 | 4.7.6 Transformers                                  | Revised section to indicate Customer shall provide and install grounding conductors and rods                                | Indicate Company policy on grounding equipment responsibility.   |
| Removed | 23 | 4.7.7 Cathodic Protection                           | Removed section, renumbered preceding section.  | Bare neutrals not used. Section not needed.  |
| 24      | 24 | 4.7.7 Trenching                                     | Referenced NEC table 300.50 and Fig. 11 for burial depths.<br><br>Removed table 4.7.8                                       | Revised section to conform to NEC  |
| 25      | 25 | 5.3 Location of Service equipment and working space | Added requirement that equipment be installed in a weathertight area or appropriate enclosure prior to connecting service   | Clarify requirements for energizing service entrance.  |
| 25      | 25 | 5.3 Location of Service equipment and working space | Removed language limiting equipment to 600 volts, nominal or less.  | NEC Article 110 specifies working clearance all Customer owned equipment. Some Customers have primary meters and equipment rated higher than 600V. |
| 26      | 26 | 5.4 Location of Main Disconnect                     | Added reference to "six-hand rule" (NEC 230.71) multi-metered installations   | Clarification on where main disconnects are required   |
| 26      | 26 | 5.5.1 Equipment Rated Below 400 Amperes             | Added requirement of service equipment to be service entrance rated   | NEC requirement  |
| 26      | 26 | 5.5.1 Equipment Rated Below 400 Amperes             | Revised circuit breaker part of this section for thermal magnetic circuit breaker instead of air break circuit breakers     | Air break circuit breakers are rarely used on 600V distribution systems. Thermal magnetic types are much more common.                              |
| 26      | 26 | 5.5.2 Equipment Rated at or Above 400 Amperes       | Added requirement of service equipment to be service entrance rated   | NEC requirement  |

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| 27 | 27 | 5.5.3 Network Area or Service at 277/480 Volts or 480 Volt Delta with Self Contained Metering | Added requirement of service equipment to be service entrance rated  | NEC requirement  |
| 28 | 28 | 6.1 General   | Added reference to section 7.5 for grounding of metering equipment   | Clarification  |
| 28 | 28 | 6.2 Grounding Electrode Conductor   | Removed minimum size of grounding conductor.<br>Removed solid grounding conductor as an option.                                  | Clarification. NEC Article 250 is already referenced and provides grounding sizes required.  |
| 28 | 28 | 6.3 Grounding Electrodes  | Added aluminum as another prohibited grounding electrode   | NEC requirement  |
| 28 | 28 | 6.4 Communications Equipment  | Added Article 840 to section as a code section needed to conform to.   | Coordination with most current version of the NEC.   |
| 31 | 31 | 7.2.3 Outdoor Meters  | Added CT cabinets to section.<br>Indicated the CT cabinet be NEMA 3R rated   | Clarify equipment typically installed and minimum protection for that equipment  |
| 32 | 32 | 7.5.2 Remote Metering Equipment   | Removed minimum size of grounding conductor, required it be copper, and referenced NEC Article 250.                              | Clarification. NEC Article 250 provides grounding sizes required.  |
| 32 | 32 | 7.7.1 General   | Revised sections to require ringless meter sockets only for new installations.   | Company employee safety  |
| 33 | 33 | 7.7.3 Meter By-pass   | Added requirement for lever by-pass on traffic signal and landlord meters in multi-tenant buildings of 4 tenants and more        | Landlord meter typically controls common area lighting and heating systems in multi-tenant buildings. Traffic signals are a commercial application |
| 33 | 33 | 7.7.5.1 General   | Removed 120/240V since meters are rated for many voltages and “structures” since meters can be installed on poles or meter post. | Clarifications   |

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| 33      | 33 | 7.7.5.2 Additional Requirements     | Revised section to have service entrance conductors sizes match overcurrent protection of service entrance equipment and certified by electrical inspectors. Double sets of conductors must be in conduit and are not recommended | Clarifications   |
| 33      | 33 | 7.7.5.2 Additional Requirements     | Require conduit for all double secondary service runs.  | Protect cable from damage/loss of a run which will overload the other.   |
| 34      | 34 | 7.7.6 Poly-phase Metering           | Added Milbank meter pan catalog numbers to table 7.7.6 to provide a reference to Customers purchasing meter pans.   | Clarification  |
| 36      | 36 | 8.3 Suitable Location Requirement   | Revised section so Company can approve installations more than 10 feet from paved surface   | Clarification  |
| Removed | 36 | 8.4 Multi-transformer Installations | Removed section and renumbered subsequent sections  | Correction   |
| 41      | 41 | 11.1 General                        | Revised motor HP ratings to values typically used by the Company and equivalent AC or heat pump loads.  | Correction to values used by the Company.  |
| 41      | 41 | 11.3 Protection                     | Removed “three-phase” from the first sentence and added additional equipment sensitive to voltage fluctuation   | Correction to require all motors are protected against overload. Clarification on equipment with sensitivity to voltage/frequency fluctuation. |
| 42      | 41 | 11.5 Motor Starting Requirements    | Revised section to include requirements for motor starters, describe voltage flicker, and responsibility of managing flicker  | Correction to reflect current Company practice.  |
| Removed | 42 | 11.6 Motor Starting Currents        | Removed Section   | Section does not reflect current Company policies on motor starting.   |
| Removed | 42 | 11.7 Group Starting                 | Removed Section   | Section content clearer in section 11.5 Motor Starting Requirements  |
| Removed | 43 | 11.8 Favorable Locations            | Removed Section   | Section does not reflect current Company policies.   |

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| Removed  | 44       | 12.2 Central Electric Heating               | Removed Section<br>Renumbered proceeding sections  | No longer part of Company practices   |
| 43       | 45       | 12.4 Swimming Pools                         | Added "private" to differentiate between public and private pools and added requirements for public pools. Indicated the Company would prefer private pool installations matched public pools for overhead electric lines. | NYS Sanitary Code part 6-1.17(i) requires all electric overhead lines be 20' clear of public pools horizontally.            |
| 45       | 47       | 13.2 Customer-Owned Standby Generators      | Added paragraph about primary voltage (or stepped up) standby generators backfeeding CHG&E systems.  | Clarification for Customer installed equipment.   |
| 45       | 47       | 13.3 Portable Standby Generators            | Added "Open-transition" to describe switch   | Clarifying switch type with commonly used terminology.  |
| 45       | 47       | 13.4 Transfer Systems                       | Added "Open-transition" to describe switch   | Clarifying switch type with commonly used terminology.  |
| 45-46    | 47-48    | 13.5.1 General                              | Added information about alternative energy types to section.<br><br>Identified relevant NEC articles and Company resources online  | Alternative energy generated by the Customer is expanding. The available resources and codes need to be identified.         |
| 46       | 48       | 13.5.2.1 Generators of Two (2) MW or Less   | Added addresses on the Company website to access information described in section.   | Provide Customer greater access to information.   |
| 46       | 48       | 13.5.2.1 Generators Greater Than Two (2) MW | Added addresses on the Company website to access information described in section.   | Provide Customer greater access to information.   |
| 46       | New      | 13.5.2.3 Net Metering                       | Added section on net metering and where to find more information on the Company's website  | Alternative energy generated by the Customer is expanding. Available Company resources need to be explained and identified. |
| Figure 4 | Figure 4 | Sheet 1                                     | Added concrete around post for permanent installations.  | Provide more stable base/better installation.   |
| Figure 4 | Figure 4 | Sheet 1                                     | Revised minimum conduit depth to meet NEC table 300.5 & Figure 11  | NEC requirements  |

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| Figure 4 | Figure 4 | Sheet 1         | Removed minimum conduit size and ground wire size   | Conduit and ground sizes are based on service entrance conductor size  |
| Figure 4 | Figure 4 | Sheet 2         | Revised note #10 to indicate when supplemental grounding is required                      | Clarification  |
| Figure 4 | Figure 4 | Sheet 1 & 2     | Added note #11 requiring disconnecting means and receptacle only on temporary services    | Clarification  |
| Figure 4 | Figure 4 | Sheet 1 & 2     | Added note #12 requiring ground wire sized per NEC Article 250.                           | Ground sizes are based on service entrance conductor size  |
| Figure 6 | Figure 6 | Sheet 1 & 2     | Revised title to “Common Minimum Clearances – Overhead Conductors 1000V or Less”          | Clarification  |
| Figure 6 | Figure 6 | Sheet 1         | Removed “Store” on buildings  | Installation is for Customer’s property not a community  |
| Figure 6 | Figure 6 | Sheet 2         | Revised minimum clearances to match NEC article 230.                                      | NEC requirements   |
| Figure 7 | Figure 7 | Sheet 1 & 2     | Revised title to “Overhead Construction Clearances from Private Swimming Pools NEC 680.8” | Clarify that figure only refers to private pools and not public pools. Also clarify NEC is the appropriate code not NECS |
| Figure 7 | Figure 7 | Sheet 1         | Added Observation Stand to drawing.<br>Revised several dimensions.                        | Correct figure to resemble figure 680.8(A) in NEC  |
| Figure 7 | Figure 7 | Sheet 1         | Revised voltage maximum from 22KV to 50KV   | NEC provides dimensions up to 50KV to ground.  |
| Figure 7 | Figure 7 | Sheet 2         | Revised chart to match NEC Table 680.8(A).  | Correct values to match NEC values.  |
| Figure 7 | Figure 7 | Sheet 2         | Added note regarding clearance to public pools  | Clarify the clearances for public pools are different than private pools.  |
| Figure 8 | Figure 8 | Sheet 1, 2, & 3 | Revised title to include installations 300V and less                                      | NEC requirement for lower clearances to roof.  |
| Figure 8 | Figure 8 | Sheet 1         | Revised minimum roof clearance for conductors.  | NEC requirement  |
| Figure 8 | Figure 8 | Sheet 3         | Added Note #11 providing conditions for lower conductor clearances to roof and overhangs. | NEC requirement  |

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| Figure 9  | Figure 9  | Sheet 1 & 2 | Removed minimum size of grounding conductor.<br><br>Revised note #8 to indicate sizing per NEC Article 250.   | Clarification. NEC Article 250 provides grounding sizes required.             |
| Figure 9  | Figure 9  | Sheet 2     | Revised conduit size from 1” to 2”  | Correction, 200A, 120/240V cables won’t fit in a 1” conduit                   |
| Figure 9  | Figure 9  | Sheet 2     | Added note #14 to indicate when supplemental grounding is required.   | Clarification   |
| Figure 9  | Figure 9  | Sheet 2     | Added note #15 that identified that the risers shall be installed on the non-traffic side of the pole unless impeded by other utilities or other obstacles. | Install risers away from traffic to provide protection from potential damage. |
| Figure 10 | Figure 10 | Sheet 2     | Revised note #11 to indicate sizing per NEC Article 250.  | Clarification. NEC Article 250 provides grounding sizes required.             |
| Figure 10 | Figure 10 | Sheet 2     | Added note #12 to indicate when supplemental grounding is required.   | Clarification   |
| Figure 11 | Figure 11 | Sheet 1     | Removed Company stock codes   | Clarification   |
| Figure 11 | Figure 11 | Sheet 1     | Added primary cable/conduit and show clearance from primary to secondary  | Clarification   |
| Figure 11 | Figure 11 | Sheet 1     | Increased clearance of supply and communication conductors from 6” to 12”   | NESC requirement  |
| Figure 11 | Figure 11 | Sheet 1     | Added note #7 for location of burial depths of primary and secondary cables/conduits  | NEC requirement   |
| Figure 11 | Figure 11 | Sheet 1     | Added Note #8 for when marker tape is required  | NEC requirement   |
| Figure 11 | Figure 11 | Sheet 1     | Added Note #9 requiring “Call Before Your Dig” is contacted prior to breaking ground.   | Clarification   |
| Figure 11 | New       | Sheet 2     | Added table derived from NEC 300.5  | NEC requirement   |
| Figure 11 | New       | Sheet 3     | Added table derived from NEC 300.50   | NEC requirement   |
| Removed   | Figure 14 | Sheet 1 & 2 | Removed figure  | Figure no longer consistent with Company policy                               |
| Figure 14 | New       | Sheet 1     | Added Figure showing ownership of underground electrical facilities   | Required to further explain Company policies                                  |

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| Figure 15   | Figure 15   | Sheet 1 & 2    | Revised figure title to “Underground Service Lateral”   | Coordinated with current Company policies |
| Figure 15   | Figure 15   | Sheet 1        | Revised title of “Central Hudson Splice Box” to “Transformer box pad”                                       | Coordinated with current Company policies |
| Figure 15   | Figure 15   | Sheet 1        | Added Primary to transformer from another transformer, pull box or riser pole                               | Clarification                             |
| Figure 15   | Figure 15   | Sheet 2        | Revised note #3 to remove date of contract and use quantity of lots on subdivision.                         | Coordinated with current Company policies |
| Figure 15   | Figure 15   | Sheet 2        | Revised note #4 to indicate responsibility of primary installation  | Coordinated with current Company policies |
| Figure 15   | Figure 15   | Sheet 2        | Revised note #5 to require hand digging near transformer pad in lieu of splice box.                         | Clarification.                            |
| Figure 15   | Figure 15   | Sheet 2        | Revised note #6 to indicate that Fig. 11 provides burial depth of secondary cables                          | Clarification.                            |
| Figure 16   | Figure 16   | Sheet 1        | Revised NESC version specified in title and note #1 to most recent (2012)                                   | Correction                                |
| Figure 17   | Figure 17   | Sheet 1        | Added description of components used to create anchor.  | Clarification                             |
| Figure 17   | Figure 17   | Sheets 1, 2, 3 | Replaced Anchor type shown with three anchor types more widely used.  | Provide equipment more readily used.      |
| Figure 18   | Figure 18   | Sheets 1, 2    | Added Note #5 indicating where guy strain insulators are to be installed and their requirements/clearances. | Clarification                             |
| Figure 19   | Figure 19   | Sheet 2        | Removed Company stock code from note #6.  | Clarification                             |
| Figure 20.0 | Figure 20.0 | Sheet 1        | Modified note #10 to clarify sandpadding requirements   | Clarification                             |
| Figure 20.0 | Figure 20.0 | Sheet 1        | Revised note #16 such that all non-pool related conductors and cables are 5 feet from pool underground      | NEC requirement                           |
| Figure 20.1 | Figure 20.1 | Sheet 1        | Added Note # 3 and moved existing notes down to 4 and 5.  | Clarification                             |
| Figure 20.1 | Figure 20.1 | Sheet 1        | Removed Company stock codes   | Clarification                             |

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| Figure 20.1 | Figure 20.1 | Sheet 1               | Modified plan view, trench details, and note #1 to correlate to figure 11 and use charts in figure 11 for cover of electric utilities. | Clarification, NESC and NEC Requirements.                       |
| Figure 20.2 | Figure 20.2 | Sheet 1               | Removed Company stock codes  | Clarification   |
| Figure 20.2 | Figure 20.2 | Sheet 1               | Modified the plan view and Section "A-A" to correlate to figure 11.  | Clarification, NESC Requirements                                |
| Figure 20.3 | Figure 20.3 | Sheet 1               | Removed Company stock codes  | Clarification   |
| Figure 20.3 | Figure 20.3 | Sheet 1               | Modified Profile view to correlate to figure 11 and added note #4.   | Clarification, NESC Requirements                                |
| Figure 21   | Figure 21   | Sheet 1               | Changed reference to note #6 to note #3  | Correction  |
| Figure 21   | Figure 21   | Sheet 1               | Called out ground rod (5/8"x8' copperweld)   | Clarification of ground rod.                                    |
| Figure 21   | Figure 21   | Sheet 1               | Replaced underground conduit types   | Correction to standard materials.                               |
| Figure 21   | Figure 21   | Sheet 1               | Added note #6 to indicate when supplemental grounding is required.   | Clarification   |
| Figure 21   | Figure 21   | Sheet 1               | Added note to seal all conduit and fitting connections watertight.   | Clarification   |
| Figure 22   | Figure 22   | Sheets 1, 2 & 3       | Revised title to include 34.5KV upper voltage limit and up to 2000KVA transformers   | Correction  |
| Figure 22   | Figure 22   | Sheet 1               | Added grounding to plan and elevation view   | Clarification   |
| Figure 22   | Figure 22   | Sheet 1               | Added conduits to elevation view, indicating they terminate above the water line in the vault  | Reduce water infiltration into conduits                         |
| Figure 22   | Figure 22   | Sheet 2               | Added a list of manufacturers instead of just Lakelands.   | Multiple manufacturers provide a pad to Company specifications. |
| Figure 22   | Figure 22   | Sheet 2               | Revised dimensions of isometric view to match plan view.   | Correction  |
| Figure 22   | Figure 22   | Sheet 3 & 4           | Removed 2 <sup>nd</sup> option of poured pad. Made note on sheet 3 into note 1 and combined sheets 3 and 4 into sheet 3                | Corrections and clarifications of Company expectations.         |
| Figure 22   | Figure 22   | Sheet 4 (now Sheet 3) | Added note 11 for size of grounding electrode conductors.  | Clean up detail to eliminate confusion                          |
| Figure 23   | Figure 23   | Sheet 1               | Removed Company stock codes and keyed note symbols   | Clarification   |

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| Figure 23 | Figure 23 | Sheet 1 | Added grounding to plan and elevation view  | Clarification  |
| Figure 23 | Figure 23 | Sheet 1 | Added conduits to elevation view, indicating they terminate above the water line in the box pad                                   | Reduce water infiltration into conduits  |
| Figure 23 | Figure 23 | Sheet 2 | Added note #6 to inform Customer grounding responsibility and size of grounding electrode conductors                              | Clarification  |
| Removed   | Figure 24 | Sheet 1 | Removed figure  | Installation no longer done  |
| Figure 24 | Figure 25 | Sheet 1 | Updated meter pans to match current designs   | Update to current equipment  |
| Figure 24 | Figure 25 | Sheet 2 | Revised note #3 to correspond to NEC work space clearances for width and height.  | NEC requirement  |
| Figure 24 | Figure 25 | Sheet 2 | Revised note #4 to include lever bypasses in meters for traffic signals and landlord meters in buildings with four or more units. | Landlord meter typically controls common area lighting and heating systems in multi-tenant buildings. Traffic signals are a commercial application |
| Figure 25 | Figure 26 | Sheet 2 | Revised note #3 to correspond to NEC work space clearances for width and height.  | NEC requirement  |
| Figure 25 | Figure 26 | Sheet 2 | Revised note #5 to include lever bypasses in meters for traffic signals and landlord meters in buildings with four or more units. | Landlord meter typically controls common area lighting and heating systems in multi-tenant buildings. Traffic signals are a commercial application |
| Figure 26 | Figure 27 | Sheet 1 | Updated meter pans to match current designs   | Update to current equipment  |
| Figure 26 | Figure 27 | Sheet 2 | Revised note #5 to correspond to NEC work space clearances for width and height.  | NEC requirement  |
| Figure 26 | Figure 27 | Sheet 2 | Revised note #7 to include lever bypasses in meters for traffic signals and landlord meters in buildings with four or more units. | Landlord meter typically controls common area lighting and heating systems in multi-tenant buildings. Traffic signals are a commercial application |
| Figure 27 | Figure 28 | Sheet 1 | Updated meter pans to match current designs   | Update to current equipment  |

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| Figure 27 | Figure 28 | Sheet 2        | Revised note #5 to correspond to NEC work space clearances for width and height.  | NEC requirement  |
| Figure 27 | Figure 28 | Sheet 2        | Revised note #7 to include lever bypasses in meters for traffic signals and landlord meters in buildings with four or more units. | Landlord meter typically controls common area lighting and heating systems in multi-tenant buildings. Traffic signals are a commercial application |
| Figure 29 | Figure 30 | Sheet 1        | Added “see note #7” to 1 ¼” conduit note  | Clarification  |
| Figure 29 | Figure 30 | Sheet 1        | Revised maximum meter height to 5’-0”   | Correction   |
| Figure 30 | Figure 31 | Sheet 2        | Remove manufacturers listed   | Correction   |
| Figure 32 | Figure 33 | Sheet 2        | Revised note #3 to correspond to NEC work space clearances for width and height.  | NEC requirement  |
| Figure 32 | Figure 33 | Sheet 2        | Revised note #4 to include lever bypasses in meters for traffic signals and landlord meters in buildings with four or more units. | Landlord meter typically controls common area lighting and heating systems in multi-tenant buildings. Traffic signals are a commercial application |
| Figure 34 | Figure 35 | Sheet 1 & 2    | Replace “Section 250 ” with “Article 250”   | Revise to match NEC  |
| Figure 34 | Figure 35 | Sheet 1, 2 & 3 | Remove “minimum #6” for ground wire.  | Correction. Ground wire sized per NEC.   |
| Figure 34 | Figure 35 | Sheet 1, 2 & 3 | Added note to indicate supplemental ground is required only when ground resistance is higher than 25 Ohms.                        | Clarification  |
| Figure 34 | Figure 35 | Sheet 3        | Updated meter pans to match current designs   | Update to current equipment  |
| Figure 35 | Figure 36 | Sheet 1 & 2    | Removed “Large Residential Application” from figure title   | 320A self-contained meters are used for more than just residential installations.  |
| Figure 35 | Figure 36 | Sheet 1        | Revised underground service detail to show 3 phase meter wiring.  | Provide Customer with more information on equipment available  |
| Figure 35 | Figure 36 | Sheet 2        | Revised note #3 to include information on three phase 320A meters   | Clarification  |
| Figure 36 | Figure 37 | Sheet 1        | Added concrete around post for permanent installations.   | Provide more stable base/better installation.  |

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| Figure 36 | Figure 37 | Sheet 1         | Added maximum distance between meter post and mobile home.   | NEC requirement   |
| Figure 36 | Figure 37 | Sheet 1         | Removed “#2” for ground wire size given.   | Correction. Ground wire sized per NEC.  |
| Figure 36 | Figure 37 | Sheet 2         | Added reference to figure 11 on note #4  | Clarification   |
| Removed   | Figure 38 | Sheet 1 & 2     | Removed figure   | Figure didn’t provide pertinent information for Customer to purchase and install equipment. |
| Figure 38 | Figure 40 | Sheet 1, 2, & 3 | Replaced cable depth note with note referring to NEC Table 300.5 and Figure 11   | NEC requirement   |
| Figure 38 | Figure 40 | Sheet 1, 2, & 3 | Added frost loop.  | Protect conductors from movement of ground.   |
| Figure 39 | Figure 41 | Sheet 1         | Added concrete around post for permanent installations.  | Provide more stable base/better installation.   |
| Figure 39 | Figure 41 | Sheet 2         | Revised installation specifications #8 & 10 to indicate customer pedestal is not required for mobile homes 30’ and within line of site of meter sockets. | Clarification   |
| Figure 39 | Figure 41 | Sheet 2         | Revised installation specifications #12 removing minimum ground size and indicating ground sized per NEC Article 250                                     | NEC requirement   |
| Figure 39 | Figure 41 | Sheet 2         | Revised installation specifications #14 to refer to NEC table 300.5 & figure 11  | NEC requirement   |
| Figure 40 | Figure 42 | Sheet 1         | Added concrete around post for permanent installations.  | Provide more stable base/better installation.   |
| Figure 40 | Figure 42 | Sheet 1         | Added frost loop.  | Protect conductors from movement of ground.   |
| Figure 40 | Figure 42 | Sheet 2         | Revised installation specifications #5 & 8 to indicate customer pedestal is not required for mobile homes 30’ and within line of site of meter sockets.  | Clarification   |
| Figure 40 | Figure 42 | Sheet 2         | Revised installation specifications #10 removing minimum ground size and indicating ground sized per NEC Article 250                                     | NEC requirement   |

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| Figure 40 | Figure 42 | Sheet 2    | Revised installation specifications #12 to refer to NEC table 300.5 & figure 11   | NEC requirement  |
| Figure 40 | Figure 42 | Sheet 2    | Revised installation specifications #15 to remove Company installation and minimum depth.                                     | Clarification. Cable burial depth given in NEC 300.5 referenced in installation specification # 12 |
| Figure 41 | Figure 43 | Sheet 1    | Revised diagrams to show switch types indicated and service disconnects between Company meter and equipment.                  | Corrections  |
| Figure 42 | Figure 44 | Sheet 1    | Fixed 20" dimension for loop.   | Correction   |
| Figure 42 | Figure 44 | Sheet 3    | Revised Method 1 Installation Note #3 (formerly Note #6 on Sheet 2) replacing #8 ground with #6 ground                        | Minimum size required for a 200A service (#3/0s) is #6 ground                                      |
| Figure 42 | Figure 44 | Sheet 2, 3 | Added Sheet 2, renumbered note sheet as sheet 3.  | Adding additional method for repair when one conductor only is damaged.                            |
| Figure 42 | Figure 44 | Sheet 3    | Revised numbering of former notes 4-7 to be under the Method 1 Installation Notes and added Method 2 Installation Notes 1 & 2 | Coordination with new sheet added  |
| Figure 43 | Figure 45 | Sheet 1    | Require manual lever bypass, three wire meter.  | Lever required to temporarily restore power to a damaged meter                                     |
| Figure 43 | Figure 45 | Sheet 1    | Added note to indicate supplemental ground is required only when ground resistance is higher than 25 Ohms.                    | Clarification  |
| Figure 43 | Figure 45 | Sheet 1    | Removed size of ground shown and indicated sizing of ground per NEC Article 250.  | NEC requirement  |
| Figure 43 | Figure 45 | Sheet 1    | Removed manufacturer and catalog number of meter socket   | Incorrect information.   |
| Figure 44 | Figure 46 | Sheet 1    | Removed "Temporary" from title block.   | Most installs following this figure are permanent installations                                    |
| Figure 44 | Figure 46 | Sheet 1    | Show grounding of receptacle/disconnect   | NEC requirement  |
| Figure 44 | Figure 46 | Sheet 1    | Remove the word "temporary" from note #5  | Most installs following this figure are permanent installations                                    |
| Figure 44 | Figure 46 | Sheet 1    | Added requirement ground-fault circuit interrupter type outlet to note #6   | Installation is outside, NEC requirement.  |

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| Back Cover | Back Cover |  | Updated “The Inspection Initiative” to latest version | Update |
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