



AGREEMENT CHANGE ORDER

CHANGE NO. 11

BETWEEN

NATIONAL GRID USA

AND

Harlan Electric Company

FOR

Electric Distribution Work

Unit Price Contract

PURCHASE ORDER NO. 3200237062

December 28, 2017



AGREEMENT CHANGE ORDER NO. 11

THIS AGREEMENT CHANGE NO. 11 made and entered into effective this 28th day of December in the year 2017 by and between National Grid USA (the Company), a Massachusetts corporation, with offices at 40 Sylvan Road, Waltham, MA, 02451; and Harlan Electric Company (the Contractor), having its office and principal place of business at 2695 Crooks Road Rochester Hills, MI 48308.

WITNESSETH:

WHEREAS, the parties agree to amend the terms and conditions of the Agreement (or "Contract" and associated Purchase Order) previously entered into by the parties on June 6, 2013 and,

WHEREAS, the Contractor has provided Owner with services upon request in accordance with the Purchase Order and Owner has elected to accept conditions for those services effective as of the date of this Purchase Order Change No. 11.

NOW, THEREFORE, in consideration of the terms and conditions previously agreed to and additional considerations incorporated herein, the parties agree that the Purchase Order shall be amended as follows:

1. ARTICLE 3 – TERM AND SCHEDULE

- 1.1 This Change No. 11 modifies original Agreement Paragraph 3.1 by extending the term two (2) years through March 31, 2020.

2. ARTICLE 6 – Contract Pricing

- 2.1 The party hereto agree to revise the following items in Schedule C – Pricing.

Unit Rates – Effective April 1, 2018

3. CHANGE ORDER PROVISIONS:


- 3.1 In the event any article, phrase, provision, portion or part of the Agreement or Change Order is deemed invalid, against public policy, void or otherwise unenforceable by a court of competent jurisdiction, the parties shall negotiate in good faith an equitable adjustment in the affected provision of the Agreement; however, the validity and enforceability of the remaining parts thereof and any other part or provision of the Agreement shall be otherwise fully enforceable.

- 3.2 In the absence of Contractor's written acknowledgement of this Agreement Change Order № 11, performance of any part of the work shall be deemed to constitute Contractor's unqualified acceptance of all provisions of this Agreement Change Order № 11.
- 3.3 Contractor's signed acknowledgement of this Agreement Change Order № 11, in addition to other things, shall operate as a release to Owner of any and all claims (except those previously tendered and not adjudicated) and of all liability to the Contractor for any and all things done or furnished in connection with the work through and including the date of such acknowledgement.
- 3.4 Owner reserves the right to cancel this contract at any time and for any reason upon a 30 day written notification.
- 3.5 All other terms and conditions of the original agreement and all amendments thereto remain unchanged.

Harlan Electric Company

National Grid USA

Signature  Digitally signed by Mike Troutman
Date: 2017.12.28 09:20:43 -05'00'

Signature 

Name Mike Troutman

Name Richard Cheung

Title V.P.

Title Buyer

Date 12/28/17

Date 12/28/17

Schedule C

Pricing Workbook

Pricing Guide Effective 4/1/18

Unit Code	Family	Unit Description	Note	IBEW 1249 Unit Price Effective 4/1/18
PO6030i	Pole	Install pole up to and including 50' augering the hole	Includes backfill hole, tamp backfill, pole tags, numbering, reflectors, cover-up as required and remove excess spoils.	
PO6031i	Pole	Install pole up to and including 50' hand digging the hole		
PO6032i	Pole	Install pole up to and including 50' rock drilling the hole. Rock drill/ledge machine must be used.		
PO6033i	Pole	Install pole up to and including 50' vac excavating the hole	If multiple methods are used to excavate the hole, then the last excavation technique will be used to select appropriate unit.	
PO6034i	Pole	Install pole up to and including 50' using a back hoe to excavate the hole		
PO6030r	Pole	Remove pole up to and including 50' all types		
PO6070i	Pole	Install pole over 50' augering the hole	Includes backfill hole, tamp backfill, pole tags, numbering, reflectors, cover-up as required and remove excess spoils.	
PO6071i	Pole	Install pole over 50' hand digging the hole		
PO6072i	Pole	Install pole over 50' rock drilling the hole		
PO6073i	Pole	Install pole over 50' vac excavating the hole	If multiple methods are used to excavate the hole, then the last excavation technique will be used to select appropriate unit.	
PO6074i	Pole	Install pole over 50' using a back hoe to excavate the hole		
PO6070r	Pole	Remove pole over 50' all types		
PO6090i	Pole	Install barrel	Includes removal, excavation, backfilling, debris removal and all cuts.	
PO6090r	Pole	Remove barrel	Includes machine excavation w/ backhoe, backfilling & debris removal. No differentiation between Highway & Off Road (covered under pole installation unit)	
PO6110n	Pole	Hold pole	Includes machine excavation w/ backhoe, backfilling & debris removal.	
PO6120n	Pole	Shift pole / cut and kick up to and including 50 FT wood	Includes labor & equipment to hold pole for an hour. Not to be used with cut & kick.	
PO6122n	Pole	Shift pole / cut and kick over 50 FT wood	Includes cut and shift to set in place, re-excavation (re-auger / hand-dig) if necessary, backfill hole, tamp backfill, pole tags, numbering, reflectors, cover-up as required and remove butt and excess spoils. Not a differential unit includes pole set.	
PO6130n	Pole	Straighten pole	Includes excavating / hand digging, backfill, tamp, cribbing and/or adjusting existing guy	
PO6180n	Pole	Obstruction, Failed attempt (per failed hole or anchor).	Unit is earned when excavating a pole or anchor hole and an obstruction is encountered. Unit can be claimed when the estimated method of digging has failed; when a third party stake pole has obstruction; and when dig safe has mismarked other UG utilities. Unit cannot be claimed when moving locations at the design point; encountering obstruction requiring hand dig to dislodge; and when equipment assigned to the task breaks down. Only one failed attempt unit can be earned per design point unless approved locations were ordered by a third party, i.e. DOT. Regardless if the same hole is used or a new hole is created, the failed attempt will be awarded in addition to the pole install unit associated with the final method of digging. * On the second failed attempt per Work Request, the CS shall be contacted for approval and/or to authorize another form of digging for the rest of the job.	
PO6190n	Pole	Top pole	Unit covers cutting the top of the pole. Used in addition to pole set and cut & kick when old pole remains (double wood with pole butt still in ground).	
PO6520i	Pole	Install rock anchors	Install rock anchor. Drilling hole with compressor.	
PO6530i	Pole	Install anchor with a rock drill	Includes (installation in rock, surface ledge, etc), drilling hole with rock drill and installing anchor with rod.	
PO6520r	Pole	Remove rock anchors	Removal includes removing old anchor rod and restoration.	
PO6540n	Pole	Deadman / Plank anchor	Includes excavation / trenching, plank, anchor with rod, backfill, tamp and remove excess spoil.	
AG6420i	Pole	Install swamp anchor	Complete unit, includes all hardware, guy guard, bonding and excavation.	
AG6420r	Pole	Remove Swamp Anchor	Includes removing old anchor rod.	

AG6250i	Pole	Install 8' to 10' anchor w/rod	Complete unit, includes all hardware (all helix sizes).
AG6250r	Pole	Remove 8' to 10' anchor w/rod	Removal includes old anchor rod.
AG6260i	Pole	Install anchor, all types, hand digging the hole	Includes hand digging excavation / trenching, anchor with rod, backfill, tamp and remove excess spoil.
AG6470i	Pole	Install push brace	Push brace, wood, machine dig. Includes digging hole, setting push brace and associated hardware, backfilling, tamping, removal of excess spoil, pole tags, numbering and reflecting.
AG6470r	Pole	Remove push brace	Includes removing push brace and associated hardware, backfilling, tamping, removal of excess spoil and restoration.
AG6470t	Pole	Transfer push brace	Push brace, wood, machine dig. Includes digging hole, setting push brace and associated hardware, backfilling, tamping, removal of excess spoil, pole tags, numbering and reflecting.
PO6231n	Pole	Adder for completing work in frost (Used only in hand digging application)	Unit will be earned for breaking frost. Will be used for ground grid installation, poles, anchors and delta ground configuration.*Unit is not earned when installing just a ground rod. Can only earn 1 unit per design point.
PO6221n	Pole	Adder for completing work in hard surface (Break hole in concrete)	Regardless of method of excavation, unit will be earned for breaking hard surface. Will be used for ground grid installation, poles, anchors and delta ground configuration.*Unit is not earned when installing just a ground rod. Can only earn 1 unit per design point. Unit includes temporary patch.
AG6450i	Grounding	Ground pole	Installation of rod, down ground, molding, bonding and all connections. Includes installation of armor guard on new poles if required.
AG6500n	Grounding	Ground grid combination	Ground grid combination. Includes 2 ground rods, 2 pole grounds, 5x6 mesh mat, excavation, molding, connections and restoration
AG6465i	Grounding	Install grounds for a delta wired configuration	Install necessary grounds to adhere to National Grid standard for properly grounding a delta wired configuration. Unit can be used for installation of new grounds or maintenance to existing grounds.
AG6463i	Grounding	Install Armor Guard on existing ground rod	Unit includes all the labor and equipment to install armor guard on existing ground. Installation
PF6330i	Framing	Install Single Arm	Itemize your wood separately from glass and shoes. Count how many you have of each and select units accordingly. Wire transfers are not included and are earned in separate units.
PF6330r	Framing	Remove Single Arm	
PF6380i	Framing	Install insulator and pin	
PF6380r	Framing	Remove insulator and pin	
PF6610i	Framing	Install Deadend / insulator / clamp	
PF6610r	Framing	Remove Deadend / insulator / clamp	
PF6620i	Framing	Install platform structure to house equipment between two pole structure.	Insulator and pin units include pole top pin, ridge pin, armless, candlestick, tangent insulator, arm
PF6430i	Framing	Install line breaker / Idlers	Includes the rack and upper framing required to build to standard.
PF6430r	Framing	Remove line breaker / Idlers	Includes the use of temporary jumpers.
PF6470i	Framing	Install up to 10 ft, single or double alley arm, including braces	Includes the use of temporary jumpers.
PF6470r	Framing	Remove up to 10 ft, single or double. alley arm, including braces	Includes all hardware required for this pole configuration. Single & double alley arm are covered under this unit.
PF6490i	Framing	Install aerial / spacer cable bracket (all other types of brackets "E" "C" "44")	Includes all hardware required for this pole configuration. Single & double alley arm are covered under this unit.
PF6490r	Framing	Remove aerial / spacer cable bracket (all other types of brackets "E" "C" "44")	Includes all hardware, bonding, bracket and spacers required for this pole configuration.
PF6490t	Framing	Transfer aerial / spacer cable bracket (all other types of brackets "E" "C" "44")	Includes all costs of removal
PF6520i	Framing	Install spacer cable tangent bracket/ aerial cable bracket	Includes all hardware required for this pole configuration. Includes bonding bracket.
PF6520r	Framing	Remove spacer cable tangent bracket/ aerial cable bracket	Includes all hardware and bonding as required.
PF6520t	Framing	Transfer spacer cable tangent bracket/ aerial cable bracket	Includes all costs of removal
PF6350i	Framing	Install 3 phase terminator bracket	Includes all hardware and bonding as required.
PF6350r	Framing	Remove 3 phase terminator bracket	Includes all costs of removal
PF6240i	Framing	Install pole top extension	Pole top extension, fiberglass, steel, or wood includes, extension assembly, drilling, bonding as required.
PF6240r	Framing	Remove pole top extension	Includes all costs of removal

PF6620r	Framing	Remove platform structure housing equipment between two pole structure.	Includes the rack and upper framing.	
PW6560t	Primary Wire	Transfer primary	Includes tying, untying, and installation of all temporary arms (any types) and all wire shifts required in construction.	
PW6570t	Primary Wire	Transfer primary deadend	Includes tying, untying, deadending, and installation of all temporary arms (any types) and all wire shifts required in construction.	
PW6600i	Primary Wire	Install wire over 1/0 - per wire, per section / span	All units are per wire, per span includes all activities required to run wire, running blocks, sisal cord, bull rope, wire shifts, (all main-line and beginning & end taps are included), deadending and resagging. Dead end bells included in framing unit. Covers both Energized / De-energized conditions	
PW6600r	Primary Wire	Remove wire over 1/0 - per wire, per section / span	All units are per wire, per span includes all activities required to remove wire. Covers both Energized / De-energized conditions	
PW6620i	Primary Wire	Install wire up to & including 1/0 - per wire, per section / span	All units are per wire, per span includes all activities required to run wire, running blocks, sisal cord, bull rope, wire shifts, (all main-line and beginning & end taps are included)), deadending and resagging. Dead end bells included in framing unit. Covers both Energized / De-energized conditions	
PW6620r	Primary Wire	Remove wire up to & including 1/0, - per wire, per section / span	All units are per wire, per span includes all activities required to remove wire. Covers both Energized / De-energized conditions	
PW6720i	Primary Wire	Install primary conductor messenger - per section / span	All units are per span includes all activities required to run wire, running blocks, pulling rope, wire shifts, (all main-line and beginning & end taps are included), deadending and resagging. Dead end bells included in framing unit.	
PW6720r	Primary Wire	Remove primary conductor messenger - per section / span	All units are per span includes all activities required to remove messenger.	
PW6720t	Primary Wire	Transfer primary conductor messenger - per section / span	Includes untying, tying, brackets, shifts and securing messenger	
PW6750i	Primary Wire	Install primary conductor spacer cable - per bundle, per section / span	All units are per span includes all activities required to run wire, running blocks, pulling rope, wire shifts, (all taps are included except for side taps), deadending and resagging. Dead end bells included in framing unit.	
PW6750r	Primary Wire	Remove primary conductor spacer cable - per bundle, per section / span	All units are per span includes all activities required to remove cable.	
PW6750t	Primary Wire	Transfer primary conductor spacer cable - per bundle, per section / span	Includes untying, tying, brackets, shifts and securing cables	
PW6781i	Primary Wire	Install primary conductor aerial cable - per bundle, per section / span (pre lashed cable)	All sizes; mid-span rollers, spider line, pull rope, and sagging. Per bundle, per section. Includes position pulling equipment, rollers, spider line & pull rope; pull cable; sagging; equipment removal	
PW6782i	Primary Wire	Install primary conductor aerial cable - per bundle, per section / span - Includes lashing	All sizes; includes banding and lashing to messenger, mid-span rollers, spider line, pull rope, and sagging. Per bundle, per section. Includes position pulling equipment, rollers, spider line & pull rope; pull cable; lashing/sagging; equipment removal	
PW6780r	Primary Wire	Remove primary conductor aerial cable - per bundle, per section / span	All units are per bundle, per span includes all activities required to remove cable.	
PW6780t	Primary Wire	Transfer primary conductor aerial cable - per bundle, per section / span	Includes untying, tying, shifts and securing cables (bracket installation separate)	
PW6810n	Primary Wire	Spacer cable - splice	Includes splice preparing conductor, sagging	
PW6820n	Primary Wire	Aerial cable - splice	Includes splice, preparing conductor, sagging	
PW6670i	Primary Wire	Install compression splice (all sizes) - includes messenger	To be used when splicing conductor (not used when running new wire, removing wire or installing / removing equipment) includes preparation of wire, automatic splice, connections, temp. jumpers and piecing up to 15 feet of wire.	
PW6655i	Primary Wire	Install automatic splice primary (all sizes)	To be used when splicing conductor (not used when running new wire, removing wire or installing / removing equipment). Includes preparation of wire, automatic splice, connections, temp. jumpers and piecing up to 15 feet of wire.	
PW6830i	Primary Wire	Install TAP (do not use with wire removal) - each	Install or remove per tap/phase. Includes temporary jumpers (Includes taps, hot line clamps, wire & use of temporary jumpers. DO NOT use for Load Break switches, Load Break Disconnects, cutouts, automatic and new wire runs.)	
PW6830r	Primary Wire	Remove TAP (do not use with wire removal) - each	All units are per tap, per span includes all activities required to remove tap.	
SF6960i	Secondary Framing	Install secondary dead end	Installation of hardware only.	

SF6960r	Secondary Framing	Remove secondary dead end	Includes all activities required to remove.	
SF6040i	Secondary Framing	Install 1 spool rack / secondary bracket	Includes all costs of installation.	
SF6040r	Secondary Framing	Remove 1 spool rack / secondary bracket	Includes all costs of removal	
SF6100i	Secondary Framing	Install 3 spool rack	Includes all costs of installation.	
SF6100r	Secondary Framing	Remove 3 spool rack	Includes all costs of removal	
SW6000i	Secondary Wire	Install secondary line breaker	Not to be included when running new wire.	
SW6000r	Secondary Wire	Remove secondary line breaker	Includes all activities required to remove including splices. Not to be included when running new wire.	
SW6140t	Secondary Wire	Transfer conductor, secondary	Includes all tying, untieing, splices, and wire shifts required in construction.	
SW6150t	Secondary Wire	Transfer conductor, secondary dead end	Includes all tying, untieing, deadending, splices and wire shifts required in construction.	
SW6180y	Secondary Wire	Service (install & remove or transfer)	Unit can be used for installing & removing or transferring a service. Unit includes all connections (at pole & house), hardware, meter work, and splice (piece out), as required.	
SW6261i	Secondary Wire	Install secondary tap (per tap)	Not to be used with the installation or removal of transformers, or secondary conductors runs. One unit for neutral tap at deadend. (includes temporary jumpers) Example: Design calls for secondary (any type) For a typical pole result will be...qty 3 - 6261i and 3 - 6261r.	
SW6261r	Secondary Wire	Remove secondary tap (per tap)	Not to be used with the installation or removal of transformers, or secondary conductors runs. One unit for neutral tap at deadend. (includes temporary jumpers) Example: Design calls for secondary (any type) For a typical pole result will be...qty 3 - 6261i and 3 - 6261r.	
SW6880i	Secondary Wire	Install per section / span Covers both Energized / De-energized conditions	Includes all activities required to run wire (running blocks, pulling rope, wire shifts, clamping, deadending, resagging). Includes all splices, crib cuts, connectors and taps (midspan and at the start and end). Does not include secondary attachment hardware (deadend or inline).	
SW6880r	Secondary Wire	Remove per section / span Covers both Energized / De-energized conditions	All units are per span includes all activities required to remove wire.	
SW6890i	Secondary Wire	Install Automatic Secondary Splice- (multiplex = 1 wire)	Used for splicing the neutral. Not to be used when running new secondary (install only - removal included in wire or device removal).	
EO6280i	OH Equipment	Install cutout, all types	Includes all taps, bracketing hardware clamps, and use of temp. jumpers where applicable.	
EO6280r	OH Equipment	Remove cutout, all types	Includes all costs of removal	
EO6340i	OH Equipment	Install switch, Automatic Controlled, 15KV, vacuum/oil, std/fog, without radio - per switch	Complete unit, includes all hardware and taps. Used for cap bank installation, oil filled cutouts	
EO6340r	OH Equipment	Remove switch, Automatic Controlled, 15KV, vacuum/oil, std/fog, without radio - per switch	Includes all costs of removal	
EO6340t	OH Equipment	Transfer switch, Automatic Controlled, 15KV, vacuum/oil, std/fog, without radio - per switch	Complete unit, includes all hardware and taps.	
EO6392i	OH Equipment	Install Single Phase Recloser	Complete unit, includes all hardware, taps, bonding, connections and cutout.	
EO6392r	OH Equipment	Remove Single Phase Recloser	Includes all costs of removal	
EO6392t	OH Equipment	Transfer Single Phase Recloser	Complete unit, includes all hardware, taps, bonding, connections and cutout.	
EO6400i	OH Equipment	Install 3 phase Pole Top Recloser / Sectionalizing Unit	Complete unit, includes all hardware, taps, bonding, connections, and control box.	
EO6400r	OH Equipment	Remove 3 phase Pole Top Recloser / Sectionalizing Unit	Includes all costs of removal	
EO6400t	OH Equipment	Transfer 3 phase Pole Top Recloser / Sectionalizing Unit	Complete unit, includes all hardware, taps, bonding, connections, and control box.	
EO6430i	OH Equipment	Install 3 phase Capacitor bank only	Capacitor bank, pre-assembled 3 phase; includes rack, capacitors, control box if applicable, taps, bonding, connections and energize.	

EO6430r	OH Equipment	Remove 3 phase Capacitor bank only	Includes all costs of removal	
EO6430t	OH Equipment	Transfer 3 phase Capacitor bank only	Capacitor bank, pre-assembled 3 phase; includes rack, capacitors, control box if applicable, taps, bonding, connections and energize.	
EO6452i	OH Equipment	Install Single Phase Capacitor	Capacitor bank brackets, taps, bond, connections and energize.	
EO6452r	OH Equipment	Remove Single Phase Capacitor	Includes all costs of removal	
EO6452t	OH Equipment	Transfer Single Phase Capacitor	Capacitor bank brackets, taps, bond, connections and energize.	
EO6460i	OH Equipment	Install Voltage regulator	Voltage regulator; Includes regulator, taps, bond, connections, control box and wildlife protection.	
EO6460r	OH Equipment	Remove Voltage regulator	Includes all costs of removal	
EO6460t	OH Equipment	Transfer Voltage regulator	Voltage regulator; Includes regulator, taps, bond, connections, control box and wildlife protection.	
EO6410i	OH Equipment	install complete primary metering unit including bracket, PT wiring, and meter box.	Per Standards	
EO6410r	OH Equipment	Remove complete primary metering unit including bracket, PT wiring, and meter box.	Includes all costs of removal	
EO6520i	OH Equipment	Install disconnect switch, 600A	Complete unit, includes all brackets, switch, taps, bonding and connections.	
EO6520r	OH Equipment	Remove disconnect switch, 600A	Includes all costs of removal	
EO6550i	OH Equipment	Install Load Break Switch / Gang Operated	Complete unit, includes taps, bonding, connections, control, and wildlife protection. Does not include ground grid. Pipe with lever to switch	
EO6550r	OH Equipment	Remove switch Load Break Switch / Gang Operated	Includes all costs of removal Pipe with lever to switch	
EO6550t	OH Equipment	Transfer Load Break Switch / Gang Operated	Complete unit, includes taps, bonding, connections, control, and wildlife protection. Does not include ground grid. Pipe with lever to switch	
EO6555i	OH Equipment	Install Load Break Switch / Gang Operated (non-handle, stick operated)	Complete unit, includes taps, bonding, connections, and wildlife protection. Hook switch	
EO6555r	OH Equipment	Remove switch Load Break Switch / Gang Operated (non-handle, stick operated)	Includes all costs of removal Hook switch	
EO6555t	OH Equipment	Transfer Load Break Switch / Gang Operated (non-handle, stick operated)	Complete unit, includes taps, bonding, connections, and wildlife protection. Hook switch	
EO6580n	OH Equipment	Install or Remove in-line disconnect switch	Completing an installation or removal will include all connections.	
EO6590i	OH Equipment	Install lightning arrestor	Includes all taps, clamps, grounds, bonds, brackets, arrestor, connections, and wildlife protection.	
EO6590r	OH Equipment	Remove lightning arrestor	Includes all costs of removal	

EO6690i	OH Equipment	Install 1 OH transformer	Includes all connections, bonding, wildlife protection and customer notification.
EO6690r	OH Equipment	Remove 1 OH transformer	Includes all costs of removal
EO6690t	OH Equipment	Transfer 1 OH transformer	Includes all connections, bonding, wildlife protection and customer notification.
EO6750i	OH Equipment	Install 2 OH transformers w/ bracket	Includes all connections, bonding, wildlife protection and customer notification.
EO6750r	OH Equipment	Remove 2 OH transformers w/bracket	Includes all costs of removal
EO6750t	OH Equipment	Transfer 2 OH transformers w/ bracket	Includes all connections, bonding, wildlife protection and customer notification.
EO6810i	OH Equipment	Install 3 OH transformer w/ bracket	Includes all connections, bonding, wildlife protection and customer notification. Unit includes building a bank (wiring for 3 phase secondary) if necessary.
EO6810r	OH Equipment	Remove 3 OH transformer w/ bracket	Includes all costs of removal
EO6810t	OH Equipment	Transfer 3 OH transformer w/ bracket	Includes all connections, bonding, wildlife protection and customer notification.
EO6865i	OH Equipment	Install step-down transformer greater than 100 kva	Includes all connections, bonding, wildlife protection and customer notification. Any step down transformer 100kva or less, use single phase transformer installation for the appropriate transformer installation units.
EO6865r	OH Equipment	Remove step-down transformer greater than 100 kva	Includes all costs of removal
EO6900y	OH Equipment	Install & remove matting up to 48'	Unit is all inclusive of the process required for matting. Includes transportation, labor & equipment to install / remove mats, and any other costs incurred to install or remove the mats. Incidental matting (up to 5 mats or 20') is included in the units. This unit covers the installation and removal of mats for 21' - 48' (6-12 mats). One unit will be earned if 8, 10, or 12 mats are installed and removed.
EO6901y	OH Equipment	Install & remove matting incremental over 48'	Unit is all inclusive of the process required for matting. Includes transportation, labor & equipment to install / remove mats, and any other costs incurred to install or remove the mats. This unit is earned when the distance of matting exceeds 48'. The distance exceeding 48' should be divided by 48 and rounded up to the nearest whole number to determine the number of units earned. Example: 150' of matting required. Contractor would earn 1- EO59000n 3- EO5901n (150-48=102 102/48 = 2.125 Round to 3 whole units)
FO6490i	Fiber Optic	Fiber optic constr, tangential trunion, per pole	Includes installation of trunion, 5/8th in double arming bolt, nut, and 3 washers. In addition to the trunion, rope will be strung through trunion and tied to the pole.
FO6490r	Fiber Optic	Fiber optic constr, tangential trunion, per pole	Includes all costs for removal
FO6490t	Fiber Optic	Fiber optic constr, tangential trunion, per pole	Includes all costs for transfer
FO6520i	Fiber Optic	Fiber optic constr, double dead end, per pole	Includes all costs for installation
FO6520r	Fiber Optic	Fiber optic constr, double dead end, per pole	Includes all costs for removal
FO6520t	Fiber Optic	Fiber optic constr, double dead end, per pole	Includes all costs for transfer
FO6550i	Fiber Optic	Fiber optic constr, double dead end, aerial coil, per pole	Includes all costs for installation
FO6550r	Fiber Optic	Fiber optic constr, double dead end, aerial coil, per pole	Includes all costs for removal
FO6550t	Fiber Optic	Fiber optic constr, double dead end, aerial coil, per pole	Includes all costs for transfer
FO6580i	Fiber Optic	Fiber optic constr, double dead end, aerial splice, per pole	Includes all costs for installation
FO6580r	Fiber Optic	Fiber optic constr, double dead end, aerial splice, per pole	Includes all costs for removal

FO6580t	Fiber Optic	Fiber optic constr, double dead end, aerial splice, per pole	Includes all costs for transfer
FO6610i	Fiber Optic	Fiber optic constr, dead end riser, per pole	Includes all costs for installation
FO6610r	Fiber Optic	Fiber optic constr, dead end riser, per pole	Includes all costs for removal
RO6910i	Risers	Install riser, up to and including #2 wire, per phase	Complete installation includes all hardware, securement of cable up pole, installation & attach to bracket, bonding, and connections, galvanized steel conduit 8' above ground with either u-guard or schedule 40 PVC including transition piece. Terminators, arrestors and cutouts are separate units. Pulling the cable is not included in this unit.
RO6910r	Risers	Remove riser, up to and including #2 wire, per phase	Removal includes all hardware, cable up pole, galvanized steel conduit 8' above ground and either u-guard or schedule 40 PVC, bonding, connections, terminators, arrestors, and cutouts.
RO6910t	Risers	Transfer riser, up to and including #2 wire, per phase	Complete transfer includes all hardware, securement of cable up pole, installation & attach to bracket, bonding, and connections, galvanized steel conduit 8' above ground with either u-guard or schedule 40 PVC. Terminators, arrestors and cutouts are separate units. Pulling the cable is not included in this unit.
RO6150i	Risers	Install riser, larger than #2 wire, per phase	Complete installation includes all hardware, securement of cable up pole, installation & attach to bracket, bonding, and connections, galvanized steel conduit 8' above ground with either u-guard or schedule 40 PVC including transition piece. Terminators, arrestors and cutouts are separate units. Pulling the cable is not included in this unit.
RO6150r	Risers	Remove riser, larger than #2 wire, per phase	Removal includes all hardware, cable up pole, galvanized steel conduit 8' above ground and either u-guard or schedule 40 PVC, bonding, connections, terminators, arrestors, and cutouts.
RO6150t	Risers	Transfer larger, bigger than #2 wire, per phase	Complete transfer includes all hardware, securement of cable up pole, installation & attach to bracket, bonding, and connections, galvanized steel conduit 8' above ground with either u-guard or schedule 40 PVC. Terminators, arrestors and cutouts are separate units. Pulling the cable is not included in this unit.
RO6202i	Risers	Install Cold Shrink Terminator 350MCM & below	Per Standard
RO6202r	Risers	Remove Cold Shrink Terminator 350MCM & below	Includes all costs of removal
RO6210r	Risers	Remove 15 KV pothead/terminator	Includes all costs of removal
RO6210t	Risers	Transfer 15 KV pothead/terminator	Includes all costs of transfer
RO6212i	Risers	Install Cold Shrink Terminator 400MCM to and including 650MCM	Per Standard
RO6212r	Risers	Remove Cold Shrink Terminator 400MCM to and including 650MCM	Includes all costs of removal
RO6214i	Risers	Install Cold Shrink Terminator 750MCM to and including 1000MCM	Per Standard
RO6214r	Risers	Remove Cold Shrink Terminator 750MCM to and including 1000MCM	Includes all costs of removal
RO6240i	Risers	Install secondary riser, per set Set up to 4 wires	Complete installation includes all hardware, securement of cable up pole, installation & attach to bracket, bonding, and connections, galvanized steel conduit 8' above ground with either u-guard or schedule 40 PVC. Includes all secondary / service connections.
RO6240r	Risers	Remove secondary riser, per set Set up to 4 wires	Removal includes all hardware, cable up pole, galvanized steel conduit 8' above ground and either u-guard or schedule 40 PVC, bonding, connections, terminators, arrestors, and cutouts.
RO6240t	Risers	Transfer secondary riser, per set Set up to 4 wires	Complete transfer includes all hardware, securement of cable up pole, installation & attach to bracket, bonding, and connections, galvanized steel conduit 8' above ground with either u-guard or schedule 40 PVC. Includes all secondary / service connections.
RO6480r	Risers	Remove environmentally sensitive risers	As per environmental state regulations.
MO6640n	Miscellaneous OH	Flagging	1 man / hour - used for flagging. Not used for incidental flagging. (approval required)
MO6650i	Miscellaneous OH	Install flood light/street light all wattages	Complete unit - includes all connections, grounding and bonding, and installation of flex conduit per standards
MO6650r	Miscellaneous OH	Remove flood light/street light all wattages	Includes all costs for removal
MO6650t	Miscellaneous OH	Transfer flood light/street light all wattages	Complete unit - includes all connections, grounding and bonding, and installation of flex conduit per standards. Includes rewiring.

MO6660m	Miscellaneous OH	Replace streetlight head (less than 5)	Unit includes the labor and equipment to replace a streetlight head. Unit includes removal of old head and installation of the new head. Installation includes all components of the streetlight including but not limited to the bulb & eye. Units are tiered and selection of the correct unit is dependent on the number of streetlight heads on a particular job (Work Authorization). On one job = Work Authorization	
MO6661m	Miscellaneous OH	Replace streetlight head (6 - 10)	Unit includes the labor and equipment to replace a streetlight head. Unit includes removal of old head and installation of the new head. Installation includes all components of the streetlight including but not limited to the bulb & eye. Units are tiered and selection of the correct unit is dependent on the number of streetlight heads on a particular job (Work Authorization). On one job = Work Authorization	
MO6662m	Miscellaneous OH	Replace streetlight head (11 +)	Unit includes the labor and equipment to replace a streetlight head. Unit includes removal of old head and installation of the new head. Installation includes all components of the streetlight including but not limited to the bulb & eye. Units are tiered and selection of the correct unit is dependent on the number of streetlight heads on a particular job (Work Authorization). On one job = Work Authorization	
MO6665m	Miscellaneous OH	Replace eye & bulb (less than 5)	Unit includes the labor and equipment to remove old eye & bulb and install new eye & bulb. Unit will be paid if one or both tasks is completed. Units are tiered and selection of the correct unit is dependent on the number of streetlight heads on a particular job (Work Authorization). On one job = Work Authorization	
MO6666m	Miscellaneous OH	Replace eye & bulb (6-10)	Unit includes the labor and equipment to remove old eye & bulb and install new eye & bulb. Unit will be paid if one or both tasks is completed. Units are tiered and selection of the correct unit is dependent on the number of streetlight heads on a particular job (Work Authorization). On one job = Work Authorization	
MO6667m	Miscellaneous OH	Replace eye & bulb (11+)	Unit includes the labor and equipment to remove old eye & bulb and install new eye & bulb. Unit will be paid if one or both tasks is completed. Units are tiered and selection of the correct unit is dependent on the number of streetlight heads on a particular job (Work Authorization). On one job = Work Authorization	
MO6690i	Miscellaneous OH	Install fault circuit indicator	One unit per phase; includes eye/port	
MO6690r	Miscellaneous OH	Remove fault circuit indicator	One unit per phase	
MO6695n	Miscellaneous OH	Test de-energize and ground per phase.	To be used for any type of grounding under the Clearance and Control Guidelines. Unit includes installation and removal per phase per location.	
MO6710n	Miscellaneous OH	Miscellaneous labor	1 man / hour no equipment (approval required)	
MO6720n	Miscellaneous OH	Hot stick for tangent	Differential unit for working tangent hot per circuit per structure	
MO6721n	Miscellaneous OH	Hot stick for the deadend	Differential unit for working deadend hot per circuit per structure	
MO6730n	Miscellaneous OH	Switching (requires switching order)	1 man / hr - used only when switching under a switching order (TOA)	
MO6780n	Miscellaneous OH	1 man crew straight time - includes equipment	All inclusive unit including man power and equipment. Used for tasks where units are not applicable (approval required). Does not include GF	
MO6781n	Miscellaneous OH	1 person incremental overtime (.5X)	Incremental overtime, only to be used with units (approval required). Incremental is the difference in cost between the straight time billing rate and overtime billing rates. Does not include GF	
MO6782n	Miscellaneous OH	1 person Incremental premium time (1X)	Incremental premium, only to be used with units (approval required). Incremental is the difference in cost between the straight time billing rate and Premium billing rates. Does not include GF	
MZ6010n	Miscellaneous OH	Compensation unit for Sub-T work	Multiplier for Sub-T work	
IM6440m	Grounding	Repair down ground	Used for maintenance, repair existing down ground and install molding	

IM6446i	Grounding	Install down ground molding	Used for maintenance when down ground already exist. Includes all types of molding.
IM6430m	Poles	Repair/plug Woodpecker holes	
IM6481i	Grounding	Communication Bonding	Unit includes all the labor and equipment required to bond all equipment at a specific location. Unit covers however many bonds are required at the specific design point in order to meet National Grid standards.
IM6482i	Grounding	Bond Equipment	Used to bond any type of equipment. Risers, Transformers, Capacitors, Regulators, Reclosers, Sectionalizers, Streetlight (if all that is required is the bond), Loadbreaks (incl handles)/all types. Not to be used with units for installation of equipment.
IM6483i	Bonding	Bond spacer cable bracket or messenger to system neutral	Includes all activities to properly bond existing spacer cable bracket or messenger to system neutral
IM6800i	Primary Wire	Install messenger covering	install per standards
IM6840m	Primary Wire	repair exposed/ damaged spacer cable conductor	unit includes proper method of re-insulating exposed bare conductor on spacer cable. This could be a splice, connector or skinned area.
IM6755m	Primary Wire	Install or replace primary wire spacer	Includes all activities to install spacer or replace existing on existing spacer cable configuration. No spacer removal unit allowed.
IM6120i	Primary Wire	Re-tie phase to insulator	unit includes all activities to re-tie phase to insulator. This would also include spacer cable if a phase is out of it's crab/holder/spreader.
IM6130i	Secondary Wire	Re-sag existing conductors	Unit includes all activities to re-sag conductors and splicing. One per insulator
IM6790i	Primary Wire	Re-sag existing conductors	Unit includes all activities to re-sag conductors and splicing.
IM6555m	Framing	Replace steel crossarm braces with wood crossarm braces	Used on repair only, not to be used w/ framing units
IM6550n	Framing	Primary deadend	Used when replacing deadend insulators only (includes transfer of wire). Not to be used w/ framing unit.
IM6850i	OH Equipment	Ground 3 transformer bank	Unit includes the labor and equipment to ground all three transformers in a bank. Unit is only applicable on maintenance work.
IM6870i	OH Equipment	Install animal guard only	Not to be used with new construction units.
IM6870r	OH Equipment	Remove animal guard only	Not to be used with new construction units.
IM6485i	Risers	Install U guard on riser	Includes U guard, transition piece and sealing.
IM6721n	Miscellaneous OH	Design Point Minimum Charge	Only applicable for program work. See specifications for further details.
IM6668i	Streetlights	Install flex conduit (Lock Tight)	Unit includes the labor and equipment to fully install flex conduit to streetlight. Includes all wiring, bonding, etc to complete the task. No other bonding units can be taken in conjunction with this streetlight unit. Bring a streetlight up to standard, bond street light
IM6669i	Poles	Stencil pole	Unit includes the reflector. Only for I&M task & project work where pole install is not required. Not to be used for pole installations.
AG6310y	Guying	Install, remove, and maintenance of down guy all types with strain insulator	Complete unit. Includes all required hardware with fiber rod, guy guard, bonding, and connections at the pole/anchor.
AG6320y	Guying	Install, remove, transfer and maintenance of head or span guy all types with strain insulator	Complete unit. Includes all required hardware with fiber rod, guy guard, bonding, and connections at the pole/anchor. Includes all work at both pole locations and bringing guy to standard.
AG6330y	Guying	Install, remove, and maintenance of sidewalk guy all types with strain insulator	Complete unit. Includes all required hardware with fiber rod, guy guard, bonding, and connections at the pole/anchor.