

COUNTY OF ROCKLAND  
Department of General Services  
Purchasing Division

# Contract Award Notification

Title: **Electrical – Maintenance & Repair Distribution  
Power Equipment and Systems**

Contract Period: April 15, 2022 through April 14, 2023 w/ 2 one-year options

Original Date of Issue: April 14, 2022

Date of Revision:

**BID No: RFB-RC-2022-021**

**PRC #: 2022000010**

**Catalog: Facilities**

Authorized Users: County Agencies, All Political Subdivisions

Address Inquiries To:

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Title: Purchaser I  
Phone: (845) 364-3808  
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E-mail: pooler@co.rockland.ny.us

**Description**

**This contract is to provide maintenance and repair of  
electrical distribution power equipment and systems**

Contract #	Vendor Number	Contractor & Address	Telephone No.
BID 22-021	0000007811	Hush Maintenance Corp. 14 Wayne Street Haverstraw, NY 10927 Contact: Peter McGuire projectmanage@hushcorp.com	845-942-4874  <b>FAX: 845-942-4400</b>

**Please note that this contract is Article 8 Prevailing Wage and requires certified payroll as a condition of payment.**

COUNTY OF ROCKLAND DGS – PURCHASING DEPARTMENT BLDG. A, 6TH FLOOR, 50 SANATORIUM ROAD POMONA, NY 10970 TELEPHONE NO.: 845-364-3820 FAX NO.: 845-364-3809						
						VENDOR: <u>HUSH MAINTENANCE CORP.</u>
LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	UNIT	UNIT PRICE	EXTENDED PRICE
	<b>TRADE LABOR RATE</b>					
	<b>MONDAY TO FRIDAY 7:00 AM TO 3:00 PM</b>					
1	Electrician	91082010001	10	HOUR	\$210.00	\$2,100.00
2	Protective Relay Technician	91082010002	2	HOUR	\$125.00	\$250.00
3	Test Technician	91082010003	2	HOUR	\$125.00	\$250.00
4	Electrical Engineer	91082010004	2	HOUR	\$235.00	\$470.00
5	Foreman	91082010005	10	HOUR	\$235.00	\$2,350.00
6	High Voltage Splicer	91082010006	2	HOUR	\$235.00	\$470.00
7	Bucket Truck Operator	91082010007	2	HOUR	\$210.00	\$420.00
8	Thermography Surveyor	91082010008	2	HOUR	\$150.00	\$300.00
9	Laboratory Technician	91082010009	2	HOUR	\$150.00	\$300.00
10	Electrical Inspector	91082010010	2	HOUR	\$125.00	\$250.00
11	Substation Maintenance Mechanic	91082010011	2	HOUR	\$125.00	\$250.00
12	Cable Tester & Troubleshooter	91082010012	2	HOUR	\$130.00	\$260.00
	<b>MONDAY TO FRIDAY 3:00 PM TO 12:00 AM</b>					
13	Electrician	91082010013	1	HOUR	\$315.00	\$315.00
14	Protective Relay Technician	91082010014	1	HOUR	\$135.00	\$135.00
15	Test Technician	91082010015	1	HOUR	\$135.00	\$135.00
16	Foreman	91082010016	2	HOUR	\$350.00	\$700.00
17	High Voltage Splicer	91082010017	1	HOUR	\$350.00	\$350.00
18	Bucket Truck Operator	91082010018	1	HOUR	\$315.00	\$315.00
19	Substation Maintenance Mechanic	91082010019	1	HOUR	\$135.00	\$135.00
20	Cable Tester & Troubleshooter	91082010020	1	HOUR	\$140.00	\$140.00

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LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	UNIT	UNIT PRICE	EXTENDED PRICE
<b>MONDAY TO FRIDAY 12:00 AM TO 7:00 AM</b>						
21	Electrician	91082010021	1	HOUR	\$315.00	\$315.00
22	Protective Relay Technician	91082010022	1	HOUR	\$150.00	\$150.00
23	Test Technician	91082010023	1	HOUR	\$150.00	\$150.00
24	Foreman	91082010024	2	HOUR	\$350.00	\$700.00
25	High Voltage Splicer	91082010025	1	HOUR	\$350.00	\$350.00
26	Bucket Truck Operator	91082010026	1	HOUR	\$315.00	\$315.00
27	Substation Maintenance Mechanic	91082010027	1	HOUR	\$150.00	\$150.00
28	Cable Tester & Troubleshooter	91082010028	1	HOUR	\$155.00	\$155.00
<b>SATURDAY 12:00 AM TO 8:00 AM</b>						
29	Electrician	91082010029	1	HOUR	\$315.00	\$315.00
30	Protective Relay Technician	91082010030	1	HOUR	\$185.00	\$185.00
31	Test Technician	91082010031	1	HOUR	\$185.00	\$185.00
32	Foreman	91082010032	2	HOUR	\$350.00	\$700.00
33	High Voltage Splicer	91082010033	1	HOUR	\$350.00	\$350.00
34	Bucket Truck Operator	91082010034	1	HOUR	\$315.00	\$315.00
35	Substation Maintenance Mechanic	91082010035	1	HOUR	\$185.00	\$185.00
36	Cable Tester & Troubleshooter	91082010036	1	HOUR	\$190.00	\$190.00
<b>SATURDAY 8:00 AM TO 4:00 PM</b>						
37	Electrician	91082010037	1	HOUR	\$315.00	\$315.00
38	Protective Relay Technician	91082010038	1	HOUR	\$150.00	\$150.00
39	Test Technician	91082010039	1	HOUR	\$150.00	\$150.00
40	Foreman	91082010040	2	HOUR	\$350.00	\$700.00

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LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	UNIT	UNIT PRICE	EXTENDED PRICE
41	High Voltage Splicer	91082010041	1	HOUR	\$350.00	\$350.00
42	Bucket Truck Operator	91082010042	1	HOUR	\$315.00	\$315.00
43	Substation Maintenance Mechanic	91082010043	1	HOUR	\$150.00	\$150.00
44	Cable Tester & Troubleshooter	91082010044	1	HOUR	\$155.00	\$155.00
<b>SATURDAY 4:00 PM TO 12:00 AM</b>						
45	Electrician	91082010045	1	HOUR	\$315.00	\$315.00
46	Protective Relay Technician	91082010046	1	HOUR	\$180.00	\$180.00
47	Test Technician	91082010047	1	HOUR	\$180.00	\$180.00
48	Foreman	91082010048	2	HOUR	\$350.00	\$700.00
49	High Voltage Splicer	91082010049	1	HOUR	\$350.00	\$350.00
50	Bucket Truck Operator	91082010050	1	HOUR	\$315.00	\$315.00
51	Substation Maintenance Mechanic	91082010051	1	HOUR	\$180.00	\$180.00
52	Cable Tester & Troubleshooter	91082010052	1	HOUR	\$185.00	\$185.00
<b>SUNDAY 12:00 AM TO 8:00 AM</b>						
53	Electrician	91082010053	1	HOUR	\$350.00	\$350.00
54	Protective Relay Technician	91082010054	1	HOUR	\$245.00	\$245.00
55	Test Technician	91082010055	1	HOUR	\$245.00	\$245.00
56	Foreman	91082010056	2	HOUR	\$375.00	\$750.00
57	High Voltage Splicer	91082010057	1	HOUR	\$375.00	\$375.00
58	Bucket Truck Operator	91082010058	1	HOUR	\$350.00	\$350.00
59	Substation Maintenance Mechanic	91082010059	1	HOUR	\$245.00	\$245.00
60	Cable Tester & Troubleshooter	91082010060	1	HOUR	\$250.00	\$250.00

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LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	UNIT	UNIT PRICE	EXTENDED PRICE
<b>SUNDAY 8:00 AM TO 4:00 PM</b>						
61	Electrician	91082010061	1	HOUR	\$350.00	\$350.00
62	Protective Relay Technician	91082010062	1	HOUR	\$175.00	\$175.00
63	Test Technician	91082010063	1	HOUR	\$175.00	\$175.00
64	Foreman	91082010064	2	HOUR	\$375.00	\$750.00
65	High Voltage Splicer	91082010065	1	HOUR	\$375.00	\$375.00
66	Bucket Truck Operator	91082010066	1	HOUR	\$350.00	\$350.00
67	Substation Maintenance Mechanic	91082010067	1	HOUR	\$175.00	\$175.00
68	Cable Tester & Troubleshooter	91082010068	1	HOUR	\$180.00	\$180.00
<b>SUNDAY 4:00 PM TO 12:00 AM</b>						
69	Electrician	91082010069	1	HOUR	\$350.00	\$350.00
70	Protective Relay Technician	91082010070	1	HOUR	\$185.00	\$185.00
71	Test Technician	91082010071	1	HOUR	\$185.00	\$185.00
72	Foreman	91082010072	2	HOUR	\$375.00	\$750.00
73	High Voltage Splicer	91082010073	1	HOUR	\$375.00	\$375.00
74	Bucket Truck Operator	91082010074	1	HOUR	\$350.00	\$350.00
75	Substation Maintenance Mechanic	91082010075	1	HOUR	\$185.00	\$185.00
76	Cable Tester & Troubleshooter	91082010076	1	HOUR	\$190.00	\$190.00
<b>LABOR RATES FOR HOLIDAY</b>						
77	Electrician	91082010077	1	HOUR	\$350.00	\$350.00
78	Protective Relay Technician	91082010078	1	HOUR	\$175.00	\$175.00
79	Test Technician	91082010079	1	HOUR	\$175.00	\$175.00
80	Foreman	91082010080	2	HOUR	\$375.00	\$750.00
81	High Voltage Splicer	91082010081	1	HOUR	\$375.00	\$375.00

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LINE NO.	DESCRIPTION	ITEM NUMBER	EST. QTY.	UNIT	UNIT PRICE	EXTENDED PRICE
82	Bucket Truck Operator	91082010082	1	HOUR	\$350.00	\$350.00
83	Substation Maintenance Mechanic	91082010083	1	HOUR	\$175.00	\$175.00
84	Cable Tester & Troubleshooter	91082010084	1	HOUR	\$180.00	\$180.00
85	<b>TOTAL EXTENDED PRICE FOR ITEMS 1-84</b>			<b>TOTAL</b>		\$29,735.00
	<b>MATERIALS COSTS</b>					
86	Materials Percent Mark Up Over Contractor Cost <b>Percent Mark-up Shall Not Exceed 10%</b>	91082010085	<u>EST. DOLLARS</u> \$1000	PERCENT	10.00%	\$1,100.00
87	Specialized Equipment Rental <b>Percent Mark-up Shall Not Exceed 5%</b>	91082010086	<u>EST. DOLLARS</u> \$1000	PERCENT	5.00%	\$1,050.00
88	Subcontracted Work <b>Percent Mark-up Shall Not Exceed 10%</b>	91082010087	<u>EST. DOLLARS</u> \$1000	PERCENT	10.00%	\$1,100.00
89	<b>TOTAL EXTENDED PRICE FOR ITEMS 86-88</b>			<b>TOTAL</b>		<b>\$3,250.00</b>
	<b>PREVENTIVE MAINTENANCE</b>					
90	13.2 kV Preferred Service Switchgear (See Par 5.1.)	91082010088	1	EACH	\$6,300.00	\$6,300.00
91	13.2 kV Alternate Service Switchgear (See Par 5.2.)	91082010089	1	EACH	\$6,300.00	\$6,300.00
92	69 kV Substation Yard (See Par 5.3.)	91082010090	1	EACH	\$6,300.00	\$6,300.00
93	Substation No. 2 (See Par 5.4.)	91082010092	1	EACH	\$5,000.00	\$5,000.00
94	Substation No. 4 (See Par 5.5.)	91082010094	1	EACH	\$5,000.00	\$5,000.00
95	Substation No. 5 (See Par 5.6.)	91082010095	1	EACH	\$5,000.00	\$5,000.00
96	<b>TOTAL EXTENDED PRICE FOR ITEMS 90-95</b>			<b>TOTAL</b>		<b>\$33,900.00</b>
97	<b>BID SUBMISSION FOR ITEMS 85 + 89+ 96</b>			<b>TOTAL</b>		<b>\$66,885.00</b>

**COUNTY OF ROCKLAND - DGS-PURCHASING**  
 BLDG. A., 6TH FLOOR, 50 SANATORIUM RD, POMONA, NY 10970  
 TELEPHONE: 845-364-3820 / TELEFAX: 845-364-3809

**TITLE:**  
**ELECTRICAL – MAINTENANCE & REPAIR**  
**DISTRIBUTION**

**BID NUMBER:**  
**RFB-RC-2022-021**

## SPECIFICATIONS

### 1. SCOPE

- 1.1. The scope of this bid is to provide preventive maintenance and emergency repair of electrical substation transformers, switchgears, and feeders at the Rockland County Sewer District No. 1 plant, located at 4 Route 340, Orangeburg, NY.

### 2. GENERAL

- 2.1. The plant electrical distribution system includes low ac and dc voltages for substation controls and lighting, one preferred 69 kV incoming line and a 13.2 kV alternate incoming feeder. Bidders are encouraged to visit the site. Site visits can be arranged by calling Mr. Josue Thomas at (845) 365-6111. Contractors must perform as specified whether or not they visit the site.
- 2.2. The preventive maintenance shall consist of scheduled service, testing, cleaning, inspection, lubrication, minor repairs and adjustments of substation equipment and feeders.
- 2.3. Emergency repairs shall consist of all efforts to restore electrical power subsequent to unplanned interruptions such as equipment or feeders being faulted in service or taken out of service to prevent catastrophic failures. These efforts may include testing, troubleshooting, fault locating, and installing portable equipment, shunts and bypasses pending permanent repairs.
- 2.4. When Rockland County Sewer District informs the Contractor that emergency repair service is required, the Contractor must take whatever steps are necessary to expedite work. Required response time is three (3) hours from notification by authorized Rockland County representative.

### 3. PREVENTIVE MAINTENANCE REQUIREMENTS

#### 3.1. Transformers (Oil Filled)

##### 3.1.1. Visual inspection

- 3.1.1.1. Observe and record the top oil temperature and the ambient temperature.
- 3.1.1.2. Check the oil level against the allowable level at the ambient temperature.
- 3.1.1.3. Check for signs of leaks at sampling connections and all other fittings.
- 3.1.1.4. Perform temperature gauge calibration.
- 3.1.1.5. Check the pressure and condition of the nitrogen bottle if applicable.
- 3.1.1.6. Check and adjust the pressure of the nitrogen blanket according to the recommended nameplate pressure levels.

##### 3.1.2. Test Runs

- 3.1.2.1. Inspect and test run the cooling fans for proper operation.
- 3.1.2.2. Operate the load tap changer (LTC) manually and electrically.
- 3.1.2.3. Record the voltages on all three phases for tap positions 16L to 16R.

##### 3.1.3. Winding and Insulation Tests

- 3.1.3.1. Perform a turn ratio test and compare measured to calculated TTR results.

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- 3.1.3.2. Perform a megohmmeter test at 5 kv, H-L, H-G, and L-G.
- 3.1.3.3. Perform a winding resistance test.
- 3.1.3.4. Perform a double power factor test and record the results.

3.1.4. Liquid Dielectric Testing

- 3.1.4.1. Collect transformer oil samples and send them to an approved laboratory to perform the oil tests below in accordance with the latest revision of following test standards:

Acidity	ASTM D-974
Power Factor	ASTM D-924
Color	ASTM D-1500
Dielectric Strength	ASTM D-877
Interfacial Tension	ASTM D-871
Visual Particles	ASTM D-1524
Specific Gravity	ASTM D-287
Water Content	ASTM D-1533B

- 3.1.4.2. Collect three (3) samples in approved containers and send them to an approved laboratory to perform Dissolved Gas Analysis.

- 3.1.4.3. Provide the reading for the following gases:

Methane	CH <sub>4</sub>
Ethane	C <sub>2</sub> H <sub>6</sub>
Ethylene	C <sub>2</sub> H <sub>4</sub>
Acetylene	C <sub>2</sub> H <sub>2</sub>
Hydrogen	H <sub>2</sub>
Carbon monoxide	CO
Carbon dioxide	CO <sub>2</sub>
Oxygen	O <sub>2</sub>

- 3.1.4.4. Provide the total gas and total combustible gas contents.
- 3.1.4.5. Provide Engineering recommendations based on the oil test results.

3.2. **Switchgears**

3.2.1. Battery Tests

- 3.2.1.1. Record both the ambient and the pilot temperatures.
- 3.2.1.2. Measure and record both the ripple and test currents.
- 3.2.1.3. Indicate any multipliers or tolerances.
- 3.2.1.4. Indicate the baseline impedance.



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- 3.2.1.5. Indicate the warning percentage and fail percentage.
- 3.2.1.6. Indicate the test start date and time.
- 3.2.1.7. Record the cell impedance, strap impedance, and the DC voltage for a period of ten (10) minutes.
- 3.2.1.8. Check support rack for proper insulation and grounding for each battery bank.
- 3.2.2. Circuit Switcher
  - 3.2.2.1. Inspect and clean the unit using approved cleaners and hand tools.
  - 3.2.2.2. Clean and inspect the equipment grounds, connections and insulators and operating mechanism.
  - 3.2.2.3. Read and record the gas level.
  - 3.2.2.4. Perform a microohm test to check contact resistance on all three phases of the switcher's closed contacts. Differences of more than 50% will be investigated.
  - 3.2.2.5. Operate manually and note observations.
  - 3.2.2.6. Operate electrically and note observations.
  - 3.2.2.7. Lubricate operating mechanism according to manufacturer's recommendations.
  - 3.2.2.8. Perform a timing test. Use a Doble Test Set TR-300 or approved equal.
- 3.2.3. Cabinet & Cell Inspection
  - 3.2.3.1. Check the overall condition of the structure.
  - 3.2.3.2. Check the lighting and power receptacles, repair as required.
  - 3.2.3.3. Check the space heaters, exhaust fans and air conditioners for proper operation.
  - 3.2.3.4. Check all louvers and replace clogged filters as filters as necessary.
- 3.2.4. Relay Tests
  - 3.2.4.1. Test and calibrate the transformer differential CA relays according to the manufacturer's recommendations.
  - 3.2.4.2. Test and calibrate the overcurrent relays (CO-11, 1BC) according to the manufacturer's recommendations and time current curves.
  - 3.2.4.3. Test and calibrate the voltage (CP) relays, lock out relays and control switch (WL-2) according to manufacturer's recommendations.
  - 3.2.4.4. Verify and record the settings of Siemens Multifunctional relays 7SJ62, 7SJ64, and 7UT613.
- 3.2.5. Medium Voltage Switch
  - 3.2.5.1. Verify and record the time delay (sec) and current (amps) settings.
  - 3.2.5.2. Remove, inspect and clean the arc chutes.
  - 3.2.5.3. Inspect, clean and adjust the arcing and main contacts.

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- 3.2.5.4. Inspect and clean insulated components with approved solvents.
- 3.2.5.5. Check for possible tracking on support insulators and insulation.
- 3.2.5.6. Inspect fuse holders for proper support and mechanical connections.
- 3.2.5.7. Remove fuses and clean fuse caps and ferrules using Scotchbrite pads, apply thin film of Mobil 28 grease.
- 3.2.5.8. Clean entire unit and inspect for loose hardware.
- 3.2.5.9. Inspect and lubricate all mechanisms, rollers, latches, etc.
- 3.2.5.10. Perform contact resistance measurements.
- 3.2.5.11. Perform all mechanical operational tests per manufacturer's recommendations.
- 3.2.5.12. Check all indicating devices for proper operation.
- 3.2.5.13. Perform insulation resistance measurements.
- 3.2.5.14. Perform high potential tests where applicable, disconnect lightning arrestors if so equipped.
- 3.2.5.15. Test all electrical and mechanical interlock systems for proper operation and sequencing.

### 3.3. Feeder Cables (High Voltage)

#### 3.3.1. Visual and Mechanical Inspection

- 3.3.1.1. Inspect exposed sections of cables for physical damage and evidence of overheating and corona.
- 3.3.1.2. Inspect terminations and splices for physical damage, evidence of overheating, and corona.
- 3.3.1.3. Inspect bolted electrical connections for high resistance using one of the following methods:
  - 3.3.1.3.1. Use of a low-resistance ohmmeter.
  - 3.3.1.3.2. Verify the tightness of accessible bolted electrical connections by calibrated torque-wrench method in accordance with manufacturer's published data.
  - 3.3.1.3.3. Perform a thermographic survey.
- 3.3.1.4. Inspect compression-applied connectors for correct cable match and indentation.
- 3.3.1.5. Inspect shield grounding and cable support.
- 3.3.1.6. Verify that visible cable bends meet or exceed ICEA and/or manufacturer's minimum allowable bending radius.
- 3.3.1.7. Inspect fireproofing in common cable areas.
- 3.3.1.8. If cables are terminated through window-type current transformers, inspect to verify that neutral and ground conductors are correctly placed and that shields are correctly terminated for operation of protective devices.

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### 3.3.2. Electrical Tests

- 3.3.2.1. Perform resistance measurements through bolted connections with a low-resistance ohmmeter, if applicable.
- 3.3.2.2. Perform an insulation-resistance test individually on each conductor with all other conductors and shields grounded. Apply voltage in accordance with manufacturer's published data.
- 3.3.2.3. Perform a shield-continuity test on each power cable by ohmmeter method.
- 3.3.2.4. In accordance with IEEE400, ICEAS-93-639/NEMA WC74, ICEA S-94-649, and ICEA S97- 682, testing can be performed by means of direct current, alternating current, partial discharge or very low frequency. The selection can only be made after an evaluation of the available test methods and a review of the installed cable system.
- 3.3.2.5. **NOTE:** Except for on-line partial discharge testing, these tests involve the application of high potentials. ICEA S-94-649 also cautions: "DC testing of aged dc cross-linked polyethylene cables can lead to early cables failures." The standards above do not provide for dc voltage for extruded insulation cables that have been in service for more than five years.
- 3.3.2.6. The high potential test procedure shall be-as follows, and the results for each cable test shall be recorded as specified. Test voltages shall not exceed 60 percent of the cable manufacturer's factory test value or, for dc hipot, the maximum test voltage.
  - 3.3.2.6.1. Insure that the input voltage to the test set is regulated.
  - 3.3.2.6.2. Current sensing circuits in test equipment shall measure only the leakage current of the test equipment.
  - 3.3.2.6.3. Record wet- and dry-bulb temperatures or relative humidity and temperature.
  - 3.3.2.6.4. Test each section of the cable individually.
  - 3.3.2.6.5. Test each conductor individually with all other conductors and shields grounded.
  - 3.3.2.6.6. Terminations shall be adequately corona-suppressed by guard ring field reduction spheres or other suitable method as necessary.
  - 3.3.2.6.7. Insure the maximum test voltage does not exceed the limits for terminators specified in ANSI/IEEE48, IEEE 386, or manufacturer's specifications.
  - 3.3.2.6.8. Raise the conductor test voltage to the specified maximum test voltage and hold for five minutes.
  - 3.3.2.6.9. When the test is performed by means of direct voltage graphic plots may be made of leakage current versus step voltage at each increment and leakage current versus time at final test voltages.
  - 3.3.2.6.10. Reduce the conductor test potential to zero and measure residual voltage at discrete intervals if applicable.
  - 3.3.2.6.11. Apply grounds for a time period adequate to drain all insulation stored charge.

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**4. EMERGENCY REPAIR REQUIREMENTS**

**4.1. Transformers (Oil Filled)**

4.1.1. Emergency work for oil filled transformers shall consist of fault locating, oil sampling, recording oil temperature and pressures, and testing for incipient faults. If the suspected faults are internal, then the transformers shall be isolated from both high and low sides pending test results and engineering recommendations.

**4.2. Switchgear**

4.2.1. Emergency work for the switchgears shall consist of isolating and checking the 69 kv primary switch, and the 13.2 kv recloser in the event that they fail to operate as per design; Troubleshooting of 13.2 kV disconnect switches, main and tie breakers, at Substations 2, 4, and Recording relay targets and prepare and provide failure report; Providing lockout and tag out of the failed equipment and their controls.

**4.3. Feeders**

4.3.1. Emergency work for feeders shall consist at of cable testing, fault locating, identification of phases, isolating faulted feeders or equipment, Disconnecting, cutting and capping, removing or replacing fuses as necessary. Hipot testing of unfaulted feeder sections. Provide report that includes the Hipot test results to the Sewer District. All terminations and live end caps shall have the phase ID tags, numbers, or colored tapes installed or replaced as necessary to ensure a cross phase incident does not occur.

**4.4. Portable Equipment**

4.4.1. With approval from the authorized County Representative, emergency work may include, the logistics, transportation and terminations to portable transformers and high voltage switches. The installation of shunts and bypasses above ground while pending permanent repair of underground feeder cables or subsurface structures.

**4.5. Independent Inspection**

4.5.1. Upon request from O&R and/or its successors, the Contractor must provide test reports, cut in card and arrange for an independent inspection agency to verify compliance with the NEC and applicable local codes.

**5. LOCATIONS AND EQUIPMENT**

5.1. **Preferred Service Switchgear**  
Main Incoming: 13.2 kV from Substation  
Position: Feeder Breaker Substation no. 2  
Position: Feeder Breaker Substation no. 4  
Position: Feeder Breaker Substation no. 5  
Equipment Name: Protective Relays & Controls

5.2. **Alternate Service Switchgear**  
Main Incoming: 13.2 kV from Pole  
Position: Feeder Breaker Substation no. 2  
Position: Feeder Breaker Substation no. 4  
Position: Feeder Breaker Substation no. 5  
Equipment Name: Protective Relays & Controls

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5.3. **Substation 69 kV Yard**  
Substation: 69 kV Substation  
Position: 69 kV Transmission Tap  
Equipment Name: 69 kV Circuit Switcher  
Equipment Name: 69/13.2 kV Transformer  
Equip Name: 13.2 kV Recloser  
Equipment Name: Protective Relays & Controls

5.4. **Substation No. 2**  
Substation: Substation No. 2  
Position: Feeder A (69 kV Substation)  
Equipment Name: Medium Voltage Switch  
Equipment Name: Transformer 13200/480 Y277 V  
Position: Feeder B (13.2 kV Pole)  
Equipment Name: Medium Voltage Switch  
Equipment Name: Transformer 13200/480 Y277 V

5.5. **Substation No. 4**  
Substation: Substation No. 4  
Position: Feed from 13.2 kV Pole  
Equipment Name: Medium Voltage Switch  
Equipment Name: Transformer 13200/480 Y277 V  
Position: Feed from 69 kV Substation  
Equipment Name: Medium Voltage Switch  
Equipment Name: Transformer 13200/480 Y277 V

5.6. **Substation No. 5**  
Substation: Substation No. 5  
Position: Feed from 13.2 kV Pole  
Equipment Name: Medium Voltage Switch  
Equipment Name: Transformer 13200/480 Y277 V  
Position: Feed from 69 kV Substation  
Equipment Name: Medium Voltage Switch  
Equipment Name: Transformer 13200/480 Y277 V

**6. LABOR AND MATERIAL COSTS**

- 6.1. All labor and materials shall be invoiced and paid, as bid, on the proposal pages.
- 6.2. The County of Rockland must receive detailed billings within fifteen days after completion of each job.
- 6.3. Detailed description of all completed preventive maintenance and/or repair work must accompany all invoices.

**6.4. LABOR COST**

6.4.1. The Contractor shall be paid for each job authorized by the County of Rockland upon submission of properly executed invoices. Invoices shall be submitted according to the requirements and must specifically list:

6.4.1.1. Start time and completion time.

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- 6.4.1.2. Name of each employee with type of labor utilized.
- 6.4.1.3. Total number of man-hours worked times hourly rate.
- 6.4.1.4. Total labor charges.
- 6.4.2. The Contractor’s labor charges must correspond to the rates, which he will supply with the bid. The bidder agrees and hereby certifies that all labor charges contained in the invoices and vouchers shall be only those that were required and necessary to complete the work. The Contractor shall submit subcontractor’s invoice as documentation with his invoice. All labor shall be billed from the time bidder’s employee arrives at, to the time he departs from the Rockland County job site. There shall be no allowance for travel time and/or expenses.
- 6.4.3. This project is subject to **New York State Labor Law 220, Article 8 Prevailing wages**. The Contractor shall submit with, each invoice, certified payrolls for all labor. Submission of Certified Payroll with invoice is a condition of payment.
- 6.4.4. Invoices for labor must be billed to the next quarter hour of actual time worked (example: 8:00AM to 9:10AM would be billed at 1 hour and 15 minutes). Invoices rounded to the next full hour will not be approved for payment.
- 6.4.5. All invoices submitted must include certified payroll sheets that relates to the work being invoiced.
- 6.5. MATERIAL COSTS
  - 6.5.1. The invoices for payment must list specifically all parts and materials and cost to Bidder for each item. The County of Rockland will require verification of these costs by copy of the invoice as submitted to the Contractor for payment. The bidder agrees and hereby certifies that all parts and materials which he purchases shall be at lowest price available at the time considering the prevailing conditions and circumstances for which it is required that the purchase be made. County of Rockland reserves the right to supply material when deemed in the best interest of the County of Rockland.
  - 6.5.2. Documentation of material costs (invoices, etc.) of items greater than \$100 must be provided with Contractor’s invoices.
- 6.6. MARK UP
  - 6.6.1. The Contractor shall add a fixed percentage of the above-described material charges to the invoice for payment. The percent mark-up must correspond to the figure entered in the proposal to this bid. **Percent mark-up shall not exceed 10%.**
- 6.7. ADDITIONAL ITEMS
  - 6.7.1. If the Contractor expects to incur any additional costs not specified in the above paragraphs, he must submit a list of those items and corresponding charges or schedule with his bid. There will be no additional charge for delivery or mileage. No other costs except those placed in the bid proposal at the time the bid is submitted shall be evaluated, considered or deemed acceptable charges by the County of Rockland. The Contractor further agrees that should it be determined by the County of Rockland that the Contractor is falsifying his invoices or partaking in fraudulent practices so as to reflect higher costs than actually incurred in the repair, this falsification of fraudulent practice shall be considered a material breach of the terms of the contract. Nothing herein shall be considered to

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limit the authority of the County of Rockland to prosecute any bidder or Contractor who violates the laws of the State of New York.

**7. CONTRACTOR RESOURCES**

7.1. The Contractor is responsible for providing an experienced and fully competent workforce, all tools, equipment and materials to efficiently perform all work in a professional and workmanlike manner. The Contractor shall possess and retain the resources below readily available and shall include them in the price for labor.

7.1.1. Workforce and Subcontractors

- 7.1.1.1. Electricians, High Voltage Splicers, and Protective Relay Technicians.
- 7.1.1.2. Cable Testers and Troubleshooters.
- 7.1.1.3. Test Technicians and Engineers to review and interpret the test results and provide recommendations.
- 7.1.1.4. Thermography professionals to perform survey, provide report and recommendations.
- 7.1.1.5. Clerical support to compile, duplicate and file the final reports in electronic and book formats.

7.1.2. Equipment and Materials

- 7.1.2.1. Hipot test set, TTR test set, megohmmeter, oil sampling containers for DGA and Dielectric.
- 7.1.2.2. High voltage bridge, Hipotonics model 5100 thumper, Doble Test Set-300 or approved equal.
- 7.1.2.3. Gas detector and blowers to enter manholes and other confined spaces.
- 7.1.2.4. Bucket trucks or lifts with 50 feet reach and vehicles to transport workers.
- 7.1.2.5. Personal protective equipment, hot sticks, isolating mats.
- 7.1.2.6. Nitrogen gas to pressurize the transformers as necessary.
- 7.1.2.7. Transformer oil to tap off or retro fill the transformers as necessary.

7.1.3. Training

- 7.1.3.1. The contractor will ensure that the field workers have been trained in NFPA 70E Arc Flash Hazard, Confined Space Entry, and Electrical Work Safety.

**8. QUALIFICATIONS OF CONTRACTORS**

- 8.1. The bidder shall show that he has available under his direct employment and supervision the necessary organization and facilities to properly fulfill all the services and conditions required under these specifications.
- 8.2. The contractor shall show that he has maintained an organization capable of performing the work specified herein, and that said organization has been in continuous operation for at least the past five years. Contractor shall submit the following information with bid (see page 38).
- 8.3. Years of operation.

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- 8.4. The names of the employees in the area responsible for this contract, their function in the company, title, and number of years of service with the contractor’s firm.
- 8.5. The present address of the main operating office of this organization.

**9. USE OF PREMISES**

- 9.1. On or about the premises and adjacent areas, the Contractor shall ensure that all apparatus, storage of materials, and activities of workmen be confined to the limits indicated by law, ordinances, permits and the direction of the authorized County of Rockland representative, and shall not encumber or permit the premises or adjacent areas to be encumbered with such materials or apparatus.
- 9.2. The work site shall be kept in an orderly and safe fashion so as not to interfere with the progress of the work or the work of any other Contractor.
- 9.3. The Contractor shall be responsible for repairing and replacing anything damaged by his operations, within thirty (30) days after notification by the authorized County of Rockland representative that damage has occurred.
- 9.4. It will be the responsibility of the Contractor to report, to the authorized County of Rockland representative, any damages found prior to any work at this site.

**10. CLEANING UP**

- 10.1. The Contractor shall at all times keep the premises and adjacent areas free from accumulations of waste material or rubbish. At the completion of the work, he/she shall remove, from and about the premises, including adjacent areas, all rubbish, tools and surplus materials used for work and shall have the area “broom clean” and ready for use. In case of a dispute, County of Rockland may remove rubbish and clean up, then may charge the Contractor either by deduction of amounts unpaid to the Contractor, or by other means as determined to be fair and equitable by the authorized County of Rockland representative.

**11. GENERAL CONDITIONS**

- 11.1. Successful contractor shall be subject to facility use rules and shall sign in and out, at the designated location whenever entering or leaving the premises. A job ticket stating name of employee, shall be completed for each individual after each service call.
- 11.2. All workers shall wear uniforms and/or identification labels of the contractor’s business.

**12. SPECIALIZED EQUIPMENT**

- 12.1. Specialized Equipment shall be billed at contractor’s cost plus a bid mark-up. Contractor shall submit rental company’s invoice as documentation with his invoice. **Percent mark-up shall not exceed 5%.**

**13. REPAIR WORK**

- 13.1. The contractor shall only perform repair work, which is required. Repairs shall be performed only with the authorization of an authorized County of Rockland representative. Should any repair work be performed without authorization payment will not be made.



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**14. LABOR**

- 14.1. Only workers who are skilled and experienced in the work will be allowed to work under this contract.
  - 14.1.1. The contractor is required to have a labor force adequate to perform the work in an efficient and expeditious manner.
- 14.2. Project requirements may dictate that the contractor’s employee's work with and/or at the direction of an authorized County of Rockland Representative.

**15. AVAILABILITY**

- 15.1. The successful bidder must be able to immediately respond to emergency situations. When the contractor is informed by an authorized County of Rockland representative that emergency service is required, the contractor must take whatever steps are necessary to expedite the project, including overtime, evening, weekend and holiday work. In addition, bidder must have sufficient inventory on hand to expedite repairs & replacements. For scheduled work, the contractor will have at least 72 hours’ notice to coordinate the work.

**16. WORK HOURS**

- 16.1. Work must be performed between the hours of 7:00 AM and 3:00 PM, Monday through Friday. No work is to be performed outside of these hours without authorization from the authorized County of Rockland representative. The contractor shall notify an authorized County of Rockland representative 24 hours in advance prior to the scheduled service date.

**17. EMERGENCY SERVICE**

- 17.1. The contractor shall provide as required emergency service to perform repairs any time of the day, 365 days per year. The contractor shall respond immediately to all emergency service calls and have a Technician onsite within four (4) hours of request.
- 17.2. Telephone Service – The contractor shall maintain a continuous manual telephone service where he can be reached 24 hours per day, seven days per week including Sundays and Holidays. Answering machines are not acceptable.

**18. EQUIPMENT**

- 18.1. The contractor is responsible for providing all tools and equipment necessary to efficiently perform all work in a professional and workmanlike manner. Hand and small tools normally required by the trade and vehicles necessary to transport workers, tools, and materials are to be included in the price for labor.

**19. GENERAL WARRANTY**

- 19.1. All repair work must be guaranteed for 90 days, and all new work for a period of one year. Any repair or replacement of work performed under this contract, for any and all failures within that period, will be at the expense of the contractor.

**20. TRAVEL TIME**

- 20.1. The County of Rockland will not accept nor authorize payment for travel time or expenses of service personnel to any of the County of Rockland’s facility locations. The only billable time will be for service work performed.

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**21. REFERENCES**

21.1. All bidders must submit a list of at least five accounts with contact persons where similar work has been performed in the last 5 years. The Certificate of Experience must be completed and is included with the proposal form.

**22. APPROVAL**

22.1. All work must meet with the approval of an authorized County of Rockland representative.

**23. LICENSES**

23.1. The contractor shall be licensed by the County of Rockland and in addition, possess all licenses required by all other authorities having jurisdiction over the work. Copies of aforementioned licenses shall be submitted with the bid. All labor supplied by subcontractors shall comply with the license requirements of this contract.

**24. SAFETY**

24.1. The Contractor shall adhere to all OSHA, PESH and County of Rockland safety rules while the work is in progress. Contractor is responsible for any damage to vehicles or structures resulting from the Contractor's negligence.

**25. SUBCONTRACT WORK**

25.1. Contractor must receive approval prior to subcontracting any work. An authorized County of Rockland representative must grant this approval. Contractor shall submit subcontractor's invoice as documentation with his invoice. Subcontracted work will be kept to a minimum. **Percent mark-up shall not exceed 10%.**

**26. INSPECTION & TERMINATION OF CONTRACT**

26.1. The quality of service shall be subject to inspection by the designated representative of the County of Rockland at any time. Should it be found that the quality of service being performed is not satisfactory, and that the specifications are not being met, the Director of Purchasing or his designee, may terminate the Contract, giving 30 days prior written notice.

**27. AMENDMENTS TO BID**

27.1. Any verbal information obtained from or statements made by the Representative of the County of Rockland or his designee at the time of examination of the documents or site shall not be construed as, in any way, amending Contract documents. Only such corrections or addenda as are issued by the Director of Purchasing in writing to all Contractors shall become a part of the Contract.

27.2. Any addendum issued during the time of bidding shall be included in bids and become a part of the Contract Agreement.

**28. CONTRACT PRICE ADJUSTMENTS UPON RENEWAL**

28.1. The bid rates shall remain firm through the first contract period with no wage adjustments allowed. If the County of Rockland exercises the option years of the award, Contractors may submit a request for adjustment on the yearly anniversary date of the contract. Any request for price adjustment(s) shall be submitted thirty (30) days in advance in writing to the Director of Purchasing. Any and all price adjustments will be limited to the percentage increase in the CPI Index - All Urban Consumers for the preceding 12 months. The County of Rockland reserves the right to reject any request for price increase deemed excessive.

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28.2. CPI-Index - Consumer Price Index for All Urban Consumers as published by the Bureau of Labor Statistics of the United States Department of Labor or a successor or substitute index, appropriately adjusted.

28.3. There shall be no upward adjustments to the Mark-Up offered or lower discount lines.

**29. AWARD**

29.1. Award will be made to the lowest responsible bidder as determined by line item # 97 of the proposal pages.

29.2. All quantities listed are estimates. Actual amounts may be more or less depending on Rockland County requirements.

**DEPARTMENT OF GENERAL SERVICES, PURCHASING DIVISION**

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**Paul Brennan, FNIGP, NIGP-CPP, CPPO**  
*Director of Purchasing*

**ADDENDUM # 1**

**RFB #: RFB-RC-2022-021**  
**ELECTRICAL – MAINTENANCE AND REPAIR**  
**ELECTRICAL DISTRIBUTION**

The information in this addendum supersedes any contradictory information set forth in the contract documents. Acknowledge receipt of this addendum in the space provided on the signature page of the bid proposal. Failure to do so, may subject the bidder to disqualification. This addendum forms a part of the contract documents.

The following question has been asked regarding this solicitation

**Question:** We have a question regarding the bid proposal pages Items numbers 90-95 that refer us to Par 5.1-5.6: What exactly are we pricing for Par 5.1-5.6? What is the scope of work for each of these items that we need to include?

**Answer:** Items 90-95 are pricing for Preventive Maintenance as outlined in Section 5, Sub-Sections 5.1-5.6 with the scope of work in Section 3 of the Specifications broken down to Sub-Sections 3.1 - Transformers, 3.2 - Switchgear and 3.3 - Feeders. Sub-Sections 5.1-5.6 explains what is in each location, so the scope of work is based on what each location contains.

**Note:** It would be best to contact Josh Thomas to arrange a site visit as stated in the bid Section 2.1.

**SIGNED:**

*Paul J. Brennan*

**PAUL J. BRENNAN, FNIGP, NIGP-CPP, CPPO**  
**DIRECTOR OF PURCHASING**

ADDENDUM

2/25/22