1.0 SCOPE

This specification covers three-phase, pole-mounted distribution line reclosers for use in outdoor applications up to 15 kV.

2.0 APPLICABLE PUBLICATIONS AND STANDARDS

All products provided shall comply with IEEE Standard C37.60-2012, as applicable.

3.0 PRODUCT REQUIREMENTS

3.1. General

Per DOP standards, reclosers supplied under this proposal shall be G&W Electric Viper-ST Solid Dielectric Reclosers (Model VIP378ER-12-1-ST).

3.2. Standard Features

The following standard features shall be included with all reclosers:

3.2.1. Three (3) epoxy insulated vacuum interrupter modules

3.2.2. One (1) magnetic actuator operator per phase, providing single or three phase operation

3.2.3. One (1) manual trip and lockout handle with mechanical block per phase, capable of physically blocking electronic and manual operation

3.2.4. Contact position indicator

3.2.5. Three (3) 1000:1 current transformers, encapsulated within the solid dielectric insulation, exclusively for use with the recloser control

3.2.6. Deadline Operation

3.2.7. Lifting provisions

3.3. Additional Features

The following additional features shall be included with all reclosers:

3.3.1. “L” style vacuum interrupter modules

3.3.2. Six (6) 800 Amp interfaces with screw-on silicone insulators
3.3.3. Aerial lugs included: NEMA-compliant two-hole lugs

3.3.4. Three (3) capacitively coupled voltage sensors, encapsulated within the solid dielectric insulation, exclusively for use with the recloser control

3.3.5. 30 foot control cable, with 32 pin connectors on both ends

3.3.6. Aluminum pole mount center bracket, with provisions for surge arrester mounting

3.3.7. Six surge arresters, site-ready (installed, wired, and grounded), rated at 12 kV

3.3.8. Two (2), oil insulated potential transformers included suitable for primary phase to ground connection at 14,400 Grd Y/8320 V and factory installed for control power (site-ready)

3.3.9. No primary potential transformer fusing to be included

3.3.10. Junction box for potential transformer connections

3.3.11. 30 foot potential transformer secondary cable for connection form the PT junction box to the control

3.3.12. Six (6) wildlife protectors

3.4. **Ratings**

The reclosers shall comply with the following ratings:

a) Maximum design voltage ........................................ 15.5kV

b) Impulse level (BIL) .............................................. 110kV

c) Continuous and load break current ......................... 800A

d) 8 Hr. Overload at 20°C ....................................... 960A

e) 60Hz Withstand, kV rms Dry, 1 min ....................... 50kV

f) 60Hz Withstand, kV rms Wet, 10 sec ..................... 45kV

g) Interrupting Rating RMS (kA) ............................. 12.5kA

h) Making Current, RMS, asym, kA ......................... 20kA

i) Peak, asym (kA) ............................................... 32kA

j) Short Circuit Current, kA sym, 3 second ............... 12.5kA

k) Mechanical Operations ..................................... 10K
3.5. **Recloser Controls**

3.5.1. **General**

Per DOP standards, recloser controls provided under this proposal shall be a custom Schweitzer Engineering Laboratories (SEL) 9163XXXX3605 detailed herein.

3.5.2. **Components**

Recloser controls shall consist of the following components:

a) Base Control: The base controls shall be a Schweitzer SEL-0651R22D1GA8AE1122EKXX Base Control with 100W heater included.

b) Security Gateway: The security gateway shall be a Schweitzer SEL-3622 – 3622XDE00XX1 Security Gateway with the following features:
   1) Power Supply: 12/24 VDC
   2) Rear Ethernet Connections: Two 10/100 BASE-T
   3) Contact Input: 12 VCD Nominal
   4) Alarm Contact: Normally Open
   5) Conformal Coating: Conformal Coated Circuit Boards

c) 100 W Heater for Single Door Enclosure (SEL 9250831)
d) AC Transfer Switch (SEL 9250570)

3.5.3. **Spare Parts**

The option to purchase the following spare parts shall be included under this specification:

a) G&W Electric VIP378ER-12-1-ST-SPR - Viper-ST Solid Dielectric Recloser – Complete Kit - Part Number D8706PT1LJU0

b) G&W Electric VIP378ER-12-1-ST-SPR - Viper-ST Solid Dielectric Recloser – Recloser Only - Part Number D8706PT1LJV0

c) G&W Electric B13415249C00 - Viper 30-foot Control Cable with 32-pin Connectors

d) G&W Electric PLS128230015 – NEMA 2-Hole Lug

e) G&W Electric A13413292DU0 – 1-kVA Oil-filled Potential Transformer

f) G&W Electric A1341517600 - Standard Wildlife Protector

g) G&W Electric PLS188870007 - 15-kV Insulator Kit

h) Schweitzer Engineering Laboratories 9163XXXX3309 – Custom Recloser Control

i) Schweitzer Engineering Laboratories 91500199 - 40 A-hr Replacement Battery Kit
j) Schweitzer Engineering Laboratories 3622XDE00XX1 - Security Gateway
k) G&W Electric B13415261C00 – 30-foot, 8-pin Connectorized PT Cable