PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

.1 Section 26 24 02 - Service Entrance Board.

1.2 REFERENCES

.1 Canadian Standards Association, (CSA International)

.1 CAN3-C17-M84(R2008), Alternating - Current Electricity Metering.

1.3 PRODUCT DATA

.1 Submit product data in accordance with Section 01 33 00.

.2 Indicate meter, instrument, outline dimensions, panel drilling dimensions and include cutout template.

1.4 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 20.

.2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.

.3 Collect and separate for disposal paper, plastic, polystyrene and corrugated cardboard packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.

.4 Divert unused wiring materials from landfill to metal recycling facility as approved by Departmental Representative.

.5 Fold up metal banding, flatten and place in designated area for recycling.

PART 2 - PRODUCTS

2.1 CUSTOMER NON-REVENUE METER

.1 Polyphase kilowatt, kilovar, demand, thermally lagged, integrating, indicating, digital recording meter: to CAN3-C17.

.2 Combination energy and demand meter: to CAN3-C17.

.3 Accuracy: 0.5%.

.4 Bottom connected, terminal strip cover, rectangular, flush switchboard draw out case, indoor.

.5 Ratings: 347 V, 5 A.

.6 Register: self contained, instrument transformer operated, clock range, pulse contacts for transmitting signal.

.7 Provision for remote sensing.

2.2 METER SOCKET

.1 Indoor meter sockets to suit meters with automatic current transformer shorting devices when meter removed.

2.3 METER CABINET

.1 Sheet steel CSA enclosure type 3R with meter backplate, to accommodate meters, test terminal block and associated equipment, factory installed and wired.

2.4 METERING INSTRUMENT TRANSFORMER CABINET

.1 Sheet steel CSA enclosure type 1 to accommodate potential and current transformers.

2.5 TEST TERMINAL BLOCKS

.1 Test terminal blocks: as required.

2.6 INDICATING INSTRUMENTS

.1 Digital indicating instruments: to ANSI C39.1, 1% accuracy, switchboard mounting, flush, case size 112 mm rectangular suppressed scale, calibrated 0- 100%, operated from current transformer.
- .1 Ammeter: true RMS range 0-800 A.
- .2 Voltmeter: true RMS range 0-250 V.
- .3 Wattmeter: range 0-250 kW.
- .4 Varmeter: range 0-300 kVAR.
- .5 Frequency meter: range 40-70 Hz.
- .6 Power factor meter.
- .7 Synchroscope.

2.7 INSTRUMENT SELECTOR SWITCHES

.1 Voltmeter and Ammeter selectable through software by pushbuttons on face of meter.

.2 Pushbuttons to cycle through readings for Phase A, Phase B and Phase C.

.3 Pushbuttons to cycle through voltages A-B, B-C, C-A, A-N, B-N and C-N.

2.8 SHOP INSTALLATION

.1 Install meters and instrument transformers in separate compartment of switchboard.

.2 Install instruments on switchboard.

.3 Ensure adequate spacing between current transformers installed on each phase.

.4 Verify correctness of connections, polarities of meters, instruments, potential and current transformers, transducers, signal sources, electrical supplies.

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

.1 Conduct tests in accordance with Section 26 05 00 and in accordance with manufacturer's recommendations.

.2 Perform simulated operation tests with metering, instruments disconnected from permanent signal and other electrical sources.

.3 Verify correctness of connections, polarities of meters, instruments, potential and current

3.1 FIELD QUALITY CONTROL (Cont'd)

.3 (Cont'd)
transformers, transducers, signal sources and electrical supplies.

.4 Perform tests to obtain correct calibration.

END