

### *Customer Information Package*

The customer is responsible for signing a Contract to Purchase Power, arrange for connection fees/deposits if applicable, and select billing method at our office at 2 Sackville Road Suite A, Sault Ste. Marie. All electrical work on private property shall conform to Electrical Safety Code specifications. Plan for pole installations, electrical equipment, etc. should be reviewed by the Electrical Safety Authority (ESA). As well, the plans should be submitted for review to Algoma Power Inc. well in advance of any work being done on the property. No connection to Algoma Power system will be done until approval of the installation has been given by ESA and connection authorization issued. The location of meter(s), metering cabinet, switchgear, etc., is to be approved by Algoma Power prior to installation of service entrance equipment. All brushing on private property is the responsibility of the customer; minimum guidelines accepted will be those specified by the ESA.

Metering will normally be supplied by the utility at a single point on the supply transformer's low voltage secondary. A central metering system may be used if the multiple secondary requirements can be supplied by a single transformer. Customer owned primary line with multiple transformers may require primary high voltage metering supplied and installed by the utility with the cost paid by the customer. Meters and instrument transformers where applicable will be mounted in sockets or in metering tubs of the proper size based on service size, per attached sheet showing metering tub sizes.

A lockable/sealable metering panel complete with detachable back plate is to be supplied/installed by the customer. The location of the metering panel will be determined by Algoma Power upon receipt of applicable plan and profile drawings. Algoma Power will supply and install the appropriate meters on a detachable back plate in the panel.

Where the metering equipment is to be mounted in switchgear, a breaker compartment in the low voltage switchgear must be able to accommodate instrument transformers for the sole purpose of metering. Algoma Power will supply CT's and PT's for services in switchgear up to 4160 volts. The type of instrument transformers utilized are subject to the approval of Algoma Power and must be of revenue accuracy in accordance with Industry Canada requirements. The switchgear cells must be of the pull-out type in order to facilitate the de-energization and isolation of the instrument transformers.

The Metering Dept. personnel of the Utility will select the appropriate type of instrument transformer based on the type and location of mounting, rating, accuracy required, and metering connections. The Utility will mount and wire all meters and instrument transformers except those in switchgear, which will be mounted but not wired by the manufacturer. The customer will supply, for secondary wiring purposes, a dedicated continuous metallic one inch conduit or other equivalent continuously enclosed raceway from the metering enclosure to any other enclosure containing instrument transformers. If requested at any time, the customer will provide a telephone extension line for purposes of remote metering.

Y:\FORMS\General Service Info Package.doc Revised Dec 8/09

It is the customer's responsibility to clarify any details regarding acceptance by the Utility, and/or E.S.A. of electrical equipment, location, metering, etc. for the service. Algoma Power's supply of service is often dependent on delivery from suppliers for transformers, metering equipment, etc.; any unexpected delays caused by late deliveries is not Algoma Power's responsibility.

**SUGGESTED METERING TUB SIZES (Imperial measurements)**

1 phase	100 amp	Socket
1 phase	200 amp	Socket
1 phase	400 amp	30 x 30 x 10
1 phase	600 amp	30 x 30 x 10
1 phase	800 amp	30 x 30 x 10
400, 600, 800 amp require 4 jaw socket with circuit closing left side Murray-Jensen 1" WB-105MW		
3 phase 3 wire	100 amp	5 terminal socket by special request
3 phase 3 wire	200 amp	5 terminal socket by special request
3 phase 3 wire	400 amp	36 x 36 x 10
3 phase 3 wire	600 amp	48 x 48 x 10

3 phase 3 wire	800 amp	48 x 48 x 10
3 phase 4 wire	100 amp	7 terminal socket by special request
3 phase 4 wire	200 amp	7 terminal socket by special request
3 phase 4 wire	400 amp	48 x 48 x 12
3 phase 4 wire	400 amp (using 400 MCM)	48 x 48 x 12
3 phase 4 wire	600 amp	48 x 48 x 12
3 phase 4 wire	800 amp	48 x 48 x 12

When using 2 phase and a neutral off a 3 phase, 4 wire circuit, requires 5 terminal socket. Rectangular Box by special request

GENERAL & INDUSTRIAL SERVICES  
Customer Information Package  
**VOLTAGE FLICKER LIMITS**

Maximum permissible voltage flicker from such sources as motor starting or load cycling, resistance welders, etc., is defined by the GE border line of irritation curve.

Examples of flicker limits are:

<u>Voltage Change (%)</u>	<u>Frequency</u>
0.5	10 - 30 per second
1.0	2 - 10 per second
2.0	< 10 per minute
4.0	4 per day or less

A formula for the % voltage change =  $100 \times \frac{MVA_L}{MVA_{SC}}$  (motor starting or other change)  $MVA_{SC}$  (short circuit at point of high voltage supply). As this formula is a slightly pessimistic approximation, marginal services should be discussed with the utility.

Service:

Short Circuit MVA =

at:

Date:

**VOLTAGE UNBALANCE LIMITS**

The customer will be required to correct a phase unbalance in his load that causes an increase of more than 1 % in the voltage unbalance of the system at the point of high voltage supply.