Menard Electric Cooperative

Backup Generation Application

For connection of non-parallel generation between Menard Electric Cooperative's Electric system and standby generation that will operate with a manual or automatic transfer switch schemes.

Please mail the completed application to:

Menard Electric Cooperative
P.O. Box 200
Petersburg, IL 62675

Last Revised 9/28/11

Customer Information:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Service Address if different from above: _____

City: _____ State: _____ Zip Code: _____

Home Phone: _____ Cell Phone: _____

Email: _____ Fax: _____

Account No. : _____

Installation Information:

Person or Company Installing: _____

License No. if Applicable: _____

Approximate Installation Date: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Email: _____ Fax: _____

Transfer Switch and Generator Information:

Transfer Switch Manufacturer: _____

Transfer Switch Model No.: _____

Generator Nameplate Power Rating: _____kW Voltage:_____V

Generator Phase(s): ❑Single Phase ❑Three Phase

Existing Electrical Service: ❑Single Phase ❑Three Phase

❑120/240V ❑120/208V ❑240/480V ❑277/480V

Please attach any specifications, drawings, and plans.

Terms and Conditions:

1. **All NEC, NESC, UL code, and NFPA requirements shall be followed.**

2. **Owner/operator must agree not to operate the generator in parallel with Menard Electric Cooperative's system other than as indicated.**

3. **An inspection and test may be requested by Menard Electric Cooperative. The member and Menard Electric Cooperative shall agree on the inspection/test date. Systems may be inspected periodically to ensure proper operating condition.**

4. **Menard Electric Cooperative does not require the transfer equipment to be capable of switching the neutral conductor.**

5. **A one line diagram may be requested by Menard Electric Cooperative, showing the location and wiring of the existing service, transfer switch, disconnects, and generator.**

6. **An open transition transfer can be achieved with a manual transfer switch or an automatic transfer switch. If an automatic transfer switch is used it is required to have voltage-sensing capability or other means for detecting the loss and restoration of the Menard Electric Cooperative's source.**

7. **If a closed transition transfer scheme is used synchronizing capability shall be required. Article 705 of the NEC must be followed. This is required in order to tie the two sources together. The duration of the synchronized closed transition shall be less than 100 ms during startup and shutdown of the backup unit. An undervoltage protection scheme shall be required which prevents a closed transition transfer in the event that Menard Electric Cooperative's source is not present. It is required to have a transfer failure scheme, that will cause the opening of one of the sources within two (2) seconds of the start of the paralleling condition.**

8. **Programmable logic controller (PLC) shall have a backup control scheme independent of the PLC that shall prevent extended paralleling operation. The PLC and backup control logic shall be enabled when the transfer scheme is placed into automatic operation and disabled when the transfer scheme is placed in manual operation. The PLC shall not lose power at any time as a direct result of automatic transfer switching. The automatic transfer switch shall be supervised by the status of a bypass switch, disconnect switch, or breaker. This is so that if any of these switches is manually tripped the PLC control will disable automatic transfer.**

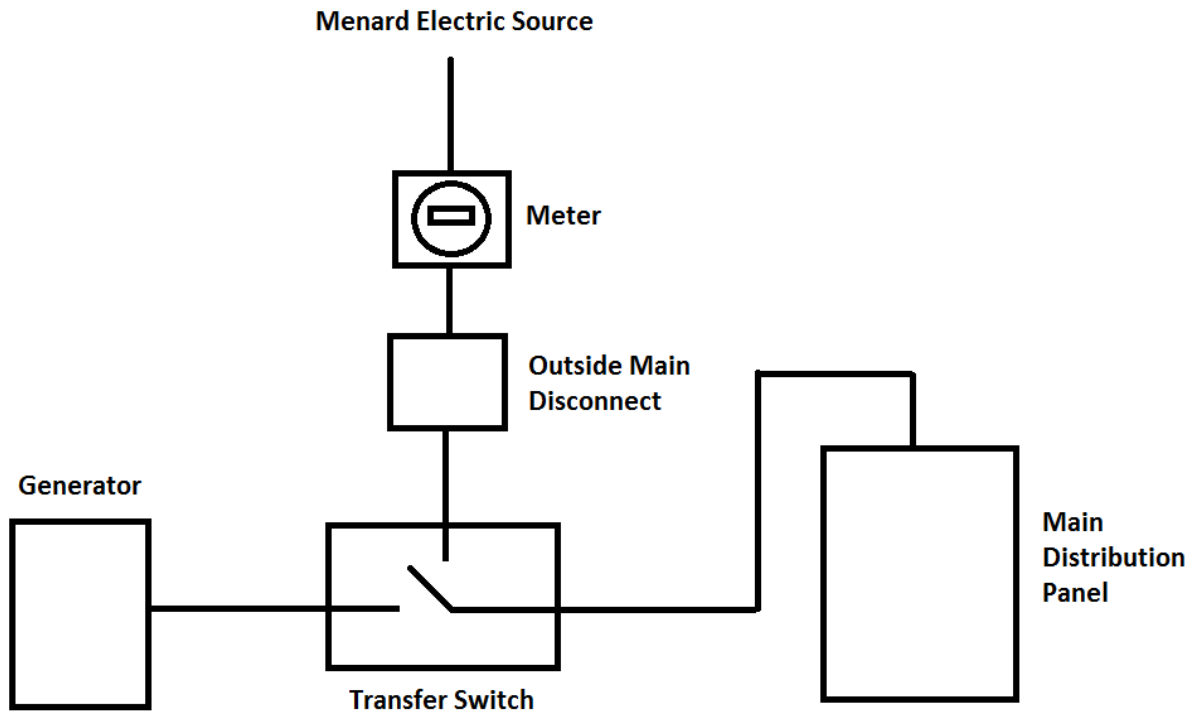
9. **Two permanent weatherproof signs approx. 5"X7" shall be installed. One sign shall be placed at the metering location indicating that "Backup Generation Present". The other sign shall also be placed at the main generator disconnect indicating "Main Service Disconnect for Isolation from Generator". If removal of a grounding or bonding connection in normal power source equipment interrupts the grounding electrode conductor connection to the alternate power source grounding conductor, a warning sign shall also be installed at the normal metering location per NEC.**

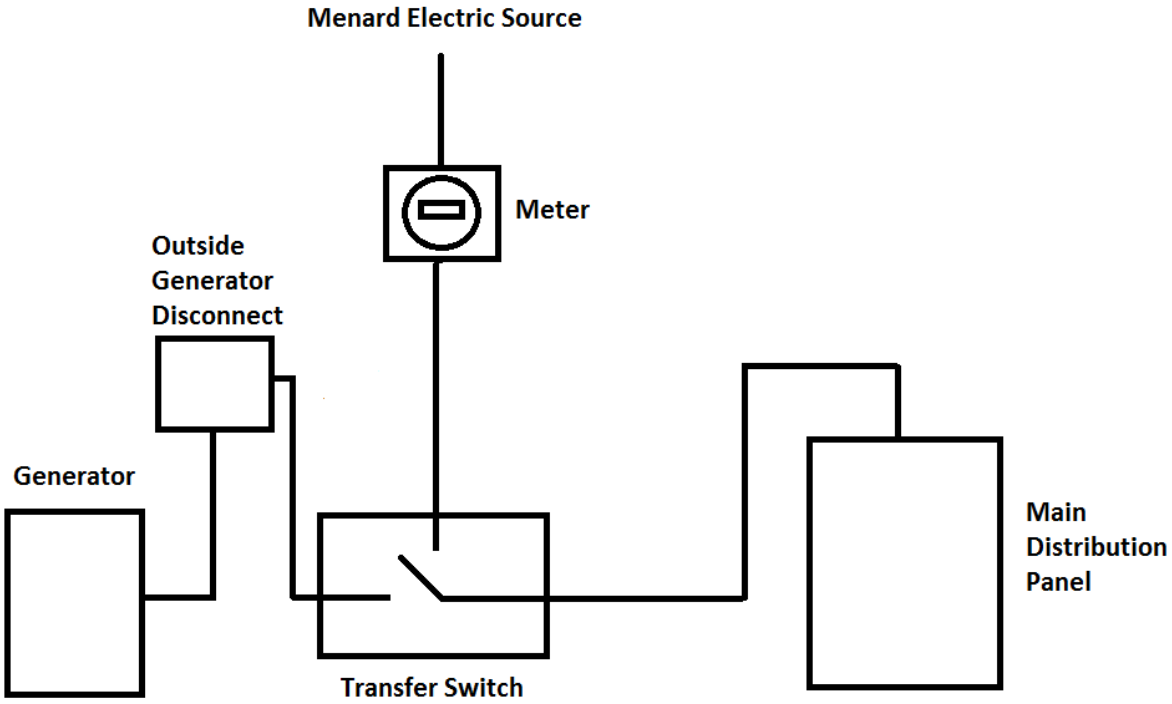
Definitions:

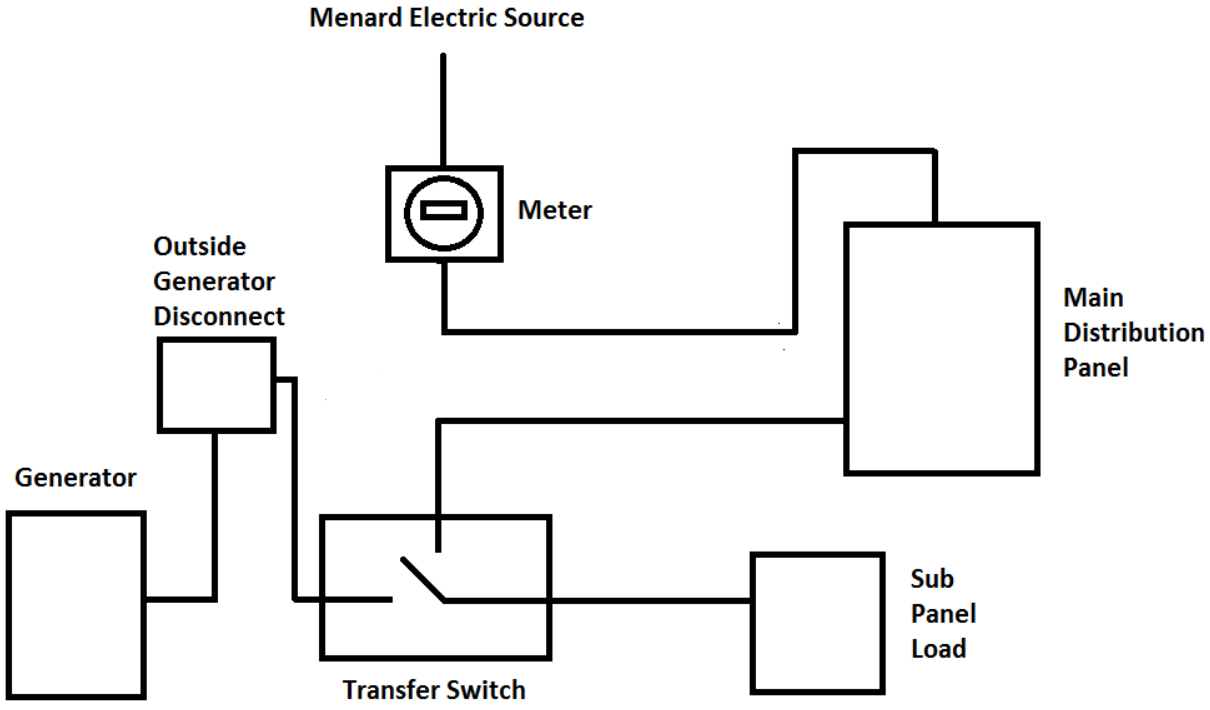
Open transition transfer switch is also called a break before make transfer switch. A break before make transfer switch breaks contact with one source of power before it makes contact with another. It prevents back feeding from a backup generator back into the utility line. This is Menard Electric Cooperative's preferred method.

Closed transition transfer switch is also called a make before break transfer switch. A make before break transfer switch keeps contact with one source of power while switching to another then breaking contact with the first source. It requires the backup generator to be able to synchronize with the service source. This method requires more sophisticated controls and backup protection.

Examples of Common Installations:




Menard Electric Source
Meter
Outside
Generator
Disconnect
Generator
Main
Distribution
Panel
Transfer Switch


Menard Electric Source
Meter
Outside
Generator
Disconnect
Main
Distribution
Panel
Generator
Sub
Panel
Load
Transfer Switch