There are many things to consider when choosing a mechanical backup power system. The paragraphs below should provide enough information to guide you towards a system that is right for you. There are three basic types of automatic generator systems, which I have listed below, from least costly to most costly. It may be helpful for you to read through these options, so you get a basic understanding of the different types of installations and their different characteristics. This will help us to narrow down which system is right for you. I can then discuss what size generator you are likely to need and provide an approximate cost. If you would like a formal proposal, I will schedule a site visit to gather the necessary information in order to get you a firm price for the work.

- 1. Automatic transfer for essential circuits Approximate price range including Generator \$4,500 \$8,500. The power for this system would be supplied form an air-cooled Generator between 7,000 & 12,000 watts. This system does not require starting, stopping, re-fueling or plugging in the generator as with manual transfer systems. The generator is connected to the home's natural gas supply, starts and transfers power automatically during a power failure. The generator is permanently located outside the home and hard wired to a dedicated back-up panel powering only the essential loads selected by the customer. These generators have an automatic "exercise" schedule which starts the unit once per week and runs for about 10 minutes without transferring from utility power. This along with some yearly maintenance for oil changes, ensures all the components are lubricated and ready to run properly if utility power is lost.
- 2. Automatic transfer to power the whole house Price range including Generator \$8,500 \$14,000

 The power for this system would be supplied form an air-cooled Generator between 16,000 & 22,000watts.

 Like the system listed above, this system starts and transfers power automatically during a power failure.

 The main difference is that this system has a Transfer-Switch that powers the entire house. Although the generator will feed all the circuits in the house, depending on the size of the Generator and the quantity of appliances, it may not power all the loads at the same time. This system requires load sheading controls for AC systems and other large appliances to ensure the Generator does not become overloaded. These generators also have an automatic "exercise" schedule which starts the unit once per week and runs for about 10 minutes without transferring from utility power. This along with some yearly maintenance for oil changes, ensures all the components are lubricated and ready to run properly if utility power is lost.
- 3. Automatic transfer to simultaneously power all the loads in the house *Price range* \$20,000 \$40,000 The power for this system would be supplied form a <u>Liquid-cooled</u> Generator, typically sized between 22,000 & 46,000watts. This system would include all the characteristics of the ones listed above, but able to power all the loads in the home simultaneously. Aside from the higher initial cost of installation, the maintenance costs are also higher than a smaller air-cooled unit.