Énergie Ressource Développement Inc.
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Why do you need alternate power sources?

Energy Resource Development Inc. can help you if you are faced with inopportune power failures, if connection to the power grid is impossible, or if your energy bill is too high.

No business can ignore the consequences of power interruptions. A power outage or even a brownout can have a disastrous effect on your computer system.

Natural disasters, such as floods or tornadoes, regularly make thousands of people and businesses idle. Shutdowns due to lack of electricity, cost companies and employees a lot of money. A brief power failure can represent lost of revenues of thousands of dollars for a small company. How prepared are you?.

In many countries, electrical power is either too polluting, inaccessible, inefficient or too costly

Consider **ERD** for a cost-effective solution.

Determining your needs:
Whether you wish to reduce your electricity bills, become autonomous or avoid the nuisance of power failures, **ERD Inc.** can help you:

Back-up systems
Businesses should have a back-up system that will allow for their operations to continue in the event of a power failure. Your needs may vary, but in the case of a small retail operation, a power failure would cause the cash register, the alarm system and the phone system to stop working «Sorry, we're closed» goes up in the door as you are forced to usher your customers out of the store unless, of course, you have an emergency back-up system from **ERD**.

T**he components of an emergency back-up system:**
The two main components are the batteries and the inverter (which charges the batteries and converts the power from DC to AC).

Example - a retail shop:
4 x 40W bulbs in use for 4 hours = 640W/h
1 x 50W telephone system on for 4 hours = 200W/h
1 x 100W electronic cash register 4 hours = 400W/h

1 x security/surveillance system (150W) on for 4 hours = 600W/h
total requirements for 4 hours = 1840W/h

This retail shop could remain in operation for 4 hours with a 2500 to 3000W/h system. (Including the recommended safety margin of 30% to 100%)

The Batteries:
To calculate the required amperage of the batteries, we divide the required consumption by the batteries' total voltage (typically 4 x 6 volt batteries hooked up in serie, totalling 24 volts). In the aforementioned example, 3000 W/h / 24V = 125 Amperes.

Thus, if the batteries have a capacity of 220 A/h (most commonly used), a set of 4 x 6V batteries would provide ample back-up power.

The inverter:
The calculation for the required inverter is easier. In our example, the maximum W/h requirement is 3000 W/h. Therefore; a 3kW/h inverter would be adequate.

Other Back-up systems

Solar panels:
As with the battery back-up system, determining your needs is a crucial first step. Once the needed battery capacity is calculated, **ERD** will then calculate the number and type of solar panels required.

500 W/h windmill:

Our sister company, **ERT** is well versed in this technology.

Autonomy
The **WindPorts** is by far the best option for the most autonomy whether you use the **WindPorts** alone, or complement the system with solar panels, you will be able to drastically reduce and perhaps even eliminate your electricity bills.