National Energy Technologies Uses® SHUNT EFFICIENCY SYSTEM

This patented **Shunt Efficiency Technology** provides power conditioning and protection from potentially damaging power line surges and spikes. Additionally, the **Shunt Efficiency System** can reduce the electrical energy costs associated with the operation of inductive loads — motor driven equipment and appliances and magnetically ballasted lighting systems.

Capabilities include:

- Protection from surges and spikes, including secondary lightning effects;
- Power conditioning, dynamic power factor correction, RF noise reduction, and reduction of the total current content including harmonic current; and
- Reduction of the electrical power drawn from the utility to operate inductive loads such as air conditioning and ventilation systems, pumps, compressors, & magnetically ballasted fluorescent & high pressure sodium lighting systems.

The benefits derived from USES® Shunt Efficiency units include:

- Improved equipment reliability, including computer and electronic systems;
- Reduced life cycle maintenance, repair, and replacement costs; and
- An average return on investment is from 6 to 36 months.

Our approach is superior to other methods for improving electrical system Performance, reliability, and efficiency from both an operational and cost standpoint. The technology's patent and listing by UL and CSA attest to the validity of our equipments capabilities. The devices are maintenance-free, have a three year limited warranty, and have a projected life of 10 years. Models range from 120/240 volt residential units up to three-phrase 600 volt industrial units.

Shunt Efficiency Technology works, it works very well, and it saves energy and money. The unique application of the wrap-around magnetic chokes enables wasted magnetic energy to be converted to useful energy, which is then supplied to the electrical system. This reduces the electrical power that the utility must provide resulting in lower electric bills. The units consistently provide real power (KW) savings when installed in systems with inductive loads. These savings exceed the KW reduction achieved merely from the reduction of I^2R losses. Specific savings are contingent on the electrical load configuration, equipment operating hours, and KWH cost. Additional savings can be realized from the reduction of demand charges and the reduction or elimination of power factor penalties. Units generally pay for themselves through utility cost savings in approximately 2 years.

NATIONAL ENERGY TECHNOLOGIES
FACILITY CONSERVATION SPECIALISTS

The Electrical Watchdog USES®

Shunt Efficiency Technology for Economical,

Effective Energy Conservation

The rising costs of coal, oil and natural gas, the three primary fuels used in the production of electrical energy, have made the conservation of electricity a major concern. The extensive use of the basic fuels in the production of electrical power has made saving electricity synonymous with saving important non-renewable natural resources.

Most efforts to conserve electrical energy emphasize the more efficient use and effective management of available electrical energy — improved insulation and efficient lighting systems, staggered loading to minimize peak demand, or elimination of unnecessary use of electrical energy. However, problems arise because programs focused in these areas are not always sufficiently cost effective to merit implementation or are too dependent on public cooperation. Offer by National Energy Technologies LLC the Uses® Shunt Efficiency Technology provides highly cost-effective solutions to correct power factor and prevent electrical waste.

This technology works on inductive loads to improve the efficiency of the electrical system. Virtually any setting can be accommodated — industrial sites, commercial buildings, hospitals, stores, supermarkets, apartment buildings, or private dwellings. Rather than lower the demand of the system, our power conditioning system raises the percentage of billed energy that is readily usable. By maximizing the amount of billed energy that is usable, the system reduces the energy required to do the same amount of work.

Our Efficiency System focuses on providing more efficient and effective use of electrical power. Not all energy supplied and billed to the customer is used or usable, even in the most efficient systems. The raw, or "dirty" power supplied by the power plant contain surges, spikes, harmonics, line noise and other natural electrical phenomena which are not only unusable, but in many cases are harmful to equipment. The system works as a power conditioner and a filter to "clean" the energy before it enters the system.

The Shunt Efficiency Units further reduce the amount of energy required by improving the system's power factor. Some devices, primarily motors, interact with the power supplied such that the equipment automatically draws a surplus of energy, wasting the energy and damaging the motor. Power factor measures this waste. Improving the power factor reduces the overdraw of wasted energy, preventing the wear and tear damage the excess voltage causes.

Our specifically sized units enhance the AC wave form, matching it to the requirements of the inductive load. The peak portion of the current wave on the line side is decreased and electrical inefficiencies that originate in the supplying transformer are reduced. This, combined with the power factor correction capabilities, reduces wasted electricity, maximizing the amount of usable billed energy. Effectively, our technology provides more electricity per capital dollar.

Shunt Efficiency units provide a number of other benefits, including surge and spike protection and the reduction of harmful magnetic fields. Spikes, surges, and magnetic fields are naturally produced by electrical energy. Using electrical equipment causes these electrical anomalies to occur more frequently, exacerbating the situation. Uses® units are designed to absorb and attenuate major transients before damage is done. The units respond to spikes and surges in less than 5 nanoseconds. This feature extends the life of the equipment as well as reduces the power required.

Our Patented technology reduces electrical waste, conserves valuable natural resources, and saves money, generally paying for itself in electrical saving and reduced maintenance costs in 1- 3 years. With dwindling resources and the eventuality of stricter environmental and conservation policies**,** Uses® Shunt Efficiency Systems are the only responsible choice.

PRODUCT BACKGROUND

Certifications and Approvals:

1. Underwriters Laboratories [UL]:
   File Number: E132743
   Category: 5B81 Industrial Control Equipment
2. Canadian Standards Association [CSA]:
   Category: LR99910
3. U.S. Patent:
   Number: 5,105,327 – A.C. Power Conditioning Circuit
4. General Services Administration [GSA]:
   GSA Contractor: Power Shaver
   GSA Contract Number: GS-07F-0422W
   Federal Supply Schedule 056: Buildings and Building Materials / Industrial Services
   FSC Group 61: Alternate Energy Solutions, Power Distribution Equipment
   SIN: 412-99: Introduction of New Services and Products related to Power Distribution Equip.
5. New York City Approval:
   Submission #: 92A0390
6. Funacion Institito de Ingenieria, Caracas, Venezuela:
   Electric and Electric System Engineering Center Test Report No, 24-000593

List of Customers:

1. U.S. Navy: Patuxent River Naval Air Station, Lexington Park, MD
   Naval Academy, Annapolis, MD
2. U.S. Marine Corps Headquarters, Henderson Hall, Washington, DC
3. Washington National Airport, Washington DC
4. U.S. Social Security Administration, Pawtucket, RI
5. Town of Salem, Connecticut
6. Reebok International, Stoughton, MA
7. Brockton Housing Authority, Brockton, MA
8. National Tire Wholesale (NTW), Woodbridge, VA (national chain)
9. Nutrena Feed - Cargill, Swanton, VA

Exports:

1. Canada
2. Republic of South Korea
3. Commonwealth of the Bahamas
4. Republic of Venezuela
5. Mexico