Energy Storage

Energy Storage: Solar Energy - Wind Energy - Hydro EnergyUsing the ultracapacitor as an energy storage device has been making a lot of ground lately. Ultracapacitors have close to 100 percent efficiency and can be recycled up to 500,000 times. The introduction of standard battery-sized ultracapacitors is a move that has the potential to significantly improve market acceptance of ultracapacitors in a variety of applications and hybrid electric vehicles (HEVs).

Large back up power users such like manufacturers and utility providers have been reluctant to move from their traditional lead-acid batteries because they are unfamiliar with the new ultracapacitor technology. All of this in spite of of the significant advantages like greater reliability and efficiency. The tide is turning though... more and more companies are becoming aware.It was recently noted by Miriam Nagel: "Environmental issues are now coming into play in the selection of advanced energy storage technologies." "Environmentally friendly technologies such as flywheels and ultracapacitors – also called supercapacitors – may soon get a lot more consideration in the energy storage markets." One of the issues that has slowed the ultracapacitor market is the high cost of integrating them into new designs. It's just now becoming known that ultracapacitors can now be produced at half the cost of its earlier earlier versions and the savings are likely to be passed on to original equipment manufacturers (OEM). Below is a diagram of the Palmdale Water District Power System (Palmdale, CA). The diagram shows energy storage using an ultracapacitor.