

Hybrid Power Supply Systems For Settlements

Tajikistan

Implementing Agency/organization	State Committee On Investment And State Property Management of The Republic of Tajikistan.
Implementation Period	2 years
Location (City and Country)	All over the regions of Tajikistan
Total Cost to implement the Project	\$ 26,000 per households (up to 1000 households)
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The Challenge

Taking into account for the urgent need of the population; mountain regions of Tajikistan for a constant supply of electricity, as well as the remoteness of the settlements from fixed power transmission lines, we propose our own solution for providing the settlements with electricity through hybrid power supply systems.

The Innovation

Equipment used in hybrid systems:

- Green energy
- Wind generators.
- Solar panels.
- Generators.
- Rechargeable batteries.
- Control system for all energy sources.

The system is completely autonomous and automated:

- In the presence of wind and sun - consumers use the energy received from the wind generator and solar panels.
- With wind / sun weakening, consumers use the energy received from batteries or generator.
- The transition from one source to another is done automatically.

The Impact

- Significant reduction in the cost of providing remote sites with electricity due to the failure to install fixed power lines.
- Reduction of the operating time of the generator due to the use of solar and wind energy.
- Greater economy for generators.
- Increase the service life of the diesel generator due to its optimum loading.
- Reduction of carbon dioxide emissions into the environment.
- A huge amount of households get the opportunity to use electricity (green energy).