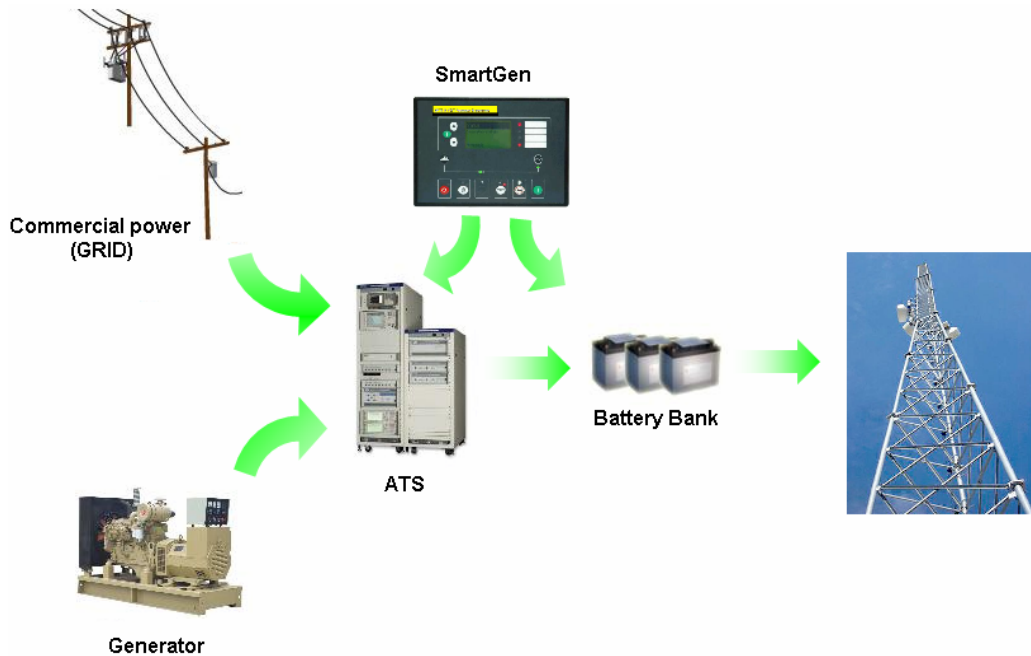


SmartGen[®]

**Microprocessor based Intelligent Power System
Controller for BTS sites**

Reduces BTS Site Diesel Genset Fuel OPEX up to 50%





Faced with the continuous challenges of reliance on commercial power and Generator, mobile operators must expand network infrastructure, despite flat ARPUs. As a result, you need to master your investment's total cost of ownership (TCO) by addressing CAPEX and OPEX, with an awareness of interdependencies.

The **Sharif International** Intelligent Power System Controller **SmartGen**[®] portfolio can help by drastically reducing all power related TCO contributors. This systematic approach provides innovative solutions, with TCO savings for ODU's ranging from 35 to 55 percent.

Normally site is running on commercial power (GRID), during commercial power outage the generator starts after 3 minutes while the expensive battery bank provide power for shorter period and when generator fails to start. Due to which expensive battery bank loses life unutilized and site runs on expensive gensets.

While **SmartGen**[®] intelligently monitors three power sources i.e. commercial power, battery bank, and generators. It shifts the site to battery bank during commercial power outage and stays on battery bank until a certain degree of battery drain level reaches or commercial power is on. While generator is under full, autonomous control of the **SmartGen**[®], the generator is utilized only to charge battery bank, with this approach generator is used for shorter periods with optimum output.

SmartGen[®] Features

- Utilizes battery power which normally goes wasted over the period of time.
- Significantly reduces Generator running time. Reducing overall OPEX.
- Avoids frequent Generator running during repeated utility/grid power failures.
- Smart design and easy interfacing with typical GSM BTS Power installations.
- Programmable Battery Bank Cut-Off Voltages.
- Generator fails to start alarm via existing fault management system.
- Generator start option at a given temperature.
- Easy to view LCD HMI with touch sensitive panel.
- More than 40% diesel fuel saving thus greatly reducing the OPEX and TCO.
- Even more savings on dual generator installations.
- Total Battery usage time logging.
- Last backup time and voltage drop for that time available thus easily identifying condition of batteries.

SmartGen[®] Key benefits

- 30% to 40% Generator running saving on Indoor sites.
- 60% to 70% Generator running saving on Outdoor sites.
- Generator is used in an optimum way and almost no energy goes wasted.
- Generator wear & tear is significantly reduced.
- ROI of SmartGen[®] is less than 7 months.

SmartGen[®] Design features

- A smart Micro-Controller monitors all 3 Power sources.
- In case of GRID failure GENERATOR is not allowed to startup and site functions on BATTERIES
- While BATTERIES provide power the SmartGen[®] Controller monitors
 - Battery Voltage Level
 - Low Voltage value + 0.5 VDC – TO – Rectifier Out put value
 - Temperature (In Shelter Sites)
 - 22°C to 40°C
- Generator is started / stopped once desired voltage and temperature conditions are met
- Extra Generator running time is programmed for full battery charging
- If GRID power returns and is stable for a predefined time (say 3 minutes) Site power is transferred to Power Source 1 i.e. GRID

Call now for a no obligations free demonstration