

SAVINGS and RETURN on INVESTMENT for HOMES using Enphase Batteries – typical calculations only

1. By effectively storing and managing solar energy, the IQ Battery 5P minimizes reliance on the grid, leading to substantial savings on electricity bills. Its efficient energy usage optimizes solar investments. Retrofit to existing Enphase systems also possible.
2. **Acts as UPS, Hybrid or Offgrid options during Power cuts with future ease of expansion** - The IQ Battery 5P is designed to provide reliable energy during outages, ensuring that your home remains powered and functional even during grid failures. Example- Total typical system cost (varies based on roof type, site specific issues, installation custom solution and utility permissions etc) for reference purposes only - 2 kW system (rooftop grid connected system) plus additional 5 kWh Enphase battery with controller will be Rs 710000/- approx. plus logistics plus tax. You can possibly install as net metered for subsidy upto 5 kW under SuryaGruha scheme for solar rooftop ongrid system for residential subject to prevailing local and central Govt rules as applicable.
3. Incremental cost of battery with control is not under subsidy. Enphase Battery has Lithium-Ion battery (LFP) with long life. This can be reviewed or compared to typical home UPS having say yearly battery replacements of UPS (once in 2 years generally for lead acid battery), environmental impact and recycling issues of lead. **Enphase battery has warranty of 6000 cycles** (pls refer Enphase manual) viz at 1 cycle per day over 15 years) or typically 15 years life with remote / online monitoring, high safety and aesthetic, wall mounted.
4. Based on present battery or inverter repair cost, technology cost factored, means return on investment on battery alone (3 equivalent batteries of 200 Ah, 12 V batteries with inverter cost say approx. Rs 125000/-, if replaced at today's cost, then every 2 years, new required), then Enphase battery Return on Investment is 4 years. **Comparing to savings on electricity, technology benefits, lifecycle, warranty, safety and overall system cost, the ROI is 5.5 to 6 years.** (subsidy not factored on the ongrid rooftop system part.)
5. **Single STOP solution of Rooftop Solar Inverter till Back up Battery system comes for ONE company - Enphase, the GLOBAL Leader** in solar microinverter technology, having high safety. It helps give robustness, uniform warranty, effective after sales – all with one COMPANY, ONE APP. **Contact SunAP Ecopower, Authorized and Official India Distributor of Enphase products.**

Typical SAVINGS and RETURN on INVESTMENT for HOMES using Enphase Rooftop ONGRID microinverter – typical calculations only

1. How does Enphase Microinverter system save bills on Grid Tied Configuration-

- ❖ **Example - A 2 kW** complete system using Enphase microinverter + say Panasonic panels, including all accessories, controls, EB / Utility calibrated meters, Govt approvals and with installation costs typically for a flat roof surface about costs about Rs 80000-90000/- per kW plus logistics and plus tax.
- ❖ **Typical Savings** equivalent averaged annually for 3.5 to 4 units per day (conservative generation, based on weather and location) for a 2 kW system is 7-8 units daily or say 210 to 240 units monthly.
- ❖ Taking EB/ Utility tariff rate for domestic @Rs 11.0/unit including fuel cess, it is Rs 2310/- to Rs 2640/- per month. Annually on lower side is 27720/- in savings. The simple return on investment is 5.7 years on full self capital investment. Further tariff increase of EB / Utility or TOD not considered. IF tariff increases (at say) @5% YoY, then payback improves to 4.5 years approx. If business entity, with depreciation factored, payback further improves.
- ❖ If capital subsidy applicable under PM Surya Gruha Scheme taken, then for a 2 kW AC system, ROI improves by 1 year, 2 months or 4.5 years to 3.9 years (future tariff basis).
- ❖ Product Warranty on Panasonic solar panels is 12 years with 25 years on performance as per Panasonic datasheet with online registration for warranty.
- ❖ Product Warranty on Enphase inverter is 15 years on product replacement with online warranty registration and support as per Enphase rules, all APP based on phone.
- ❖ High Safety for homes and residential with Enphase systems, globally recognized, US safety certification, no high voltage DC on roof, easy to expand or add future battery systems or EV charging systems.
- ❖ App based, online performance monitoring

Enphase - Home Energy Management - Energy Storage - Battery systems

SunAP brings Enphase-USA solar solutions for a home in multiple ways to meet its energy needs. As

1. Enphase Microinverters based systems - Grid Tied / Ongrid systems for Net Metering
2. Enphase Energy Storage Systems (ESS) - Same system for Net metering, expandable as AC Coupled System for Hybrid or Offgrid options - with following config -
 - Programmable Control System
 - Program can be set to grid tie mode with export of excess solar power (*after charging battery to full, / meeting home loads*) to grid (no export from battery)
 - Program can be set to partial loads from battery daily and balance from grid
 - Program can be set for all home loads from battery and balance in order of priority from other sources as grid etc.
 - No separate inverter or UPS or battery like lead acid. All in one option
 - Compatible to expand
 - Compatible to remote monitor or program while travelling. Internet mandatory
 - Compatible for adding future EV charging to same controls with bi-directional charging option from car battery to home in case of emergency.

We thus offer **Best in class Home Energy Systems** with delivery to Home-Owners through excellent team of trained and skilled engineers and support team, back by comprehensive network of local installer partners.