

Subregional Conference - Going Beyond the Meter Inclusive Energy Solutions in South Asia

11-12 April 2016 • Hotel Jai Mahal Palace, Jaipur, Rajasthan



1 panel (3 x 10 kW, with isol. trafo)
Interfaces PV, Wind, bio-mass, battery
Both off-grid & grid-connected modes
Design of Hardware & Controls: IITK
Engg. & fab. : CDAC-Trivandrum

Govt of India (through CDAC-T, nodal agency) Implementation Agency: WBREDA, Kolkata

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Single panel



Mousuni

Island

P. Sensarma, IIT Kanpur, INDIA.



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Modular expansion concept: investor friendly

Allows *critical mass* accumulation
Allows aggregation till MW scale
Allows integration of wind, hydro & bio-mass generation
Challenge: large storage & low-cost communication backbone

55 kVA, 3-phase, 415 V, 50/60 Hz *back-to-back converter*, multi-string, 60°C ambient



Scaling

No dc cabling, dc switchgear
Easy installation
Suitable for household clusters
Basically for solar PV
Challenge: Cost!

350 VA, 1-phase, 230 V, 50/60 Hz, PV panel mounted, 2-stage, *micro-inverter*



P. Sensarma, IIT Kanpur, INDIA.