



# AUROVILLE SMART MINI-GRID

## PHASE 1

Towards a distributed, interconnected and  
sustainable energy future



AUROVILLE

SMART

MINI-GRID




An aerial photograph of Auroville, India, taken during the 'golden hour' of sunset. The sky is a mix of deep blues, purples, and oranges, with large, dark clouds catching the low light. Below, a dense forest of green trees covers the landscape. Several modern, multi-story buildings with flat roofs are visible, some with solar panels installed on them. The overall mood is serene and hopeful.

Auroville gratefully acknowledges the contribution by  
**Himatsingka Foundation**  
that made the implementation of Phase 1 of the  
Auroville Smart Mini-Grid possible .

Before and after images for the components deployed..





The Auroville Smart Mini Grid project seeks to deploy and integrate renewables, energy storage and demand response technologies and to demonstrate scalable and financially viable examples of resilient, smart and interconnected mini-grids to tackle issues of energy security, affordability, climate resilience and mitigation. Auroville offers an ideal environment for this pilot project because of its commitment to sustainable development and track record in sustainable energy solutions. It is foreseen that this approach can be adapted by campuses, urban centres and by electricity utilities at a wider scale and will serve as a case study to inform policy makers and urban decision makers.

The development of the Auroville Smart Mini Grid is planned in a phased manner. Phase 1 was completed in June 2020. The following technology systems were integrated:

- 122 kW rooftop solar on 6 public buildings in the administrative area of Auroville
- 50 kWh lithium ion battery storage at Mitra Youth Hostel
- 65 nos. smart meters and a meter data management system for monitoring
- 1400 meters of 22 kV HT underground network to complete the city centre main HT distribution ring system

The work was completed in a collaborative effort by the following Auroville units:

- Auroville Consulting
- Auroville Electrical Services
- Sunlit Future





Befor Installation





After Installation





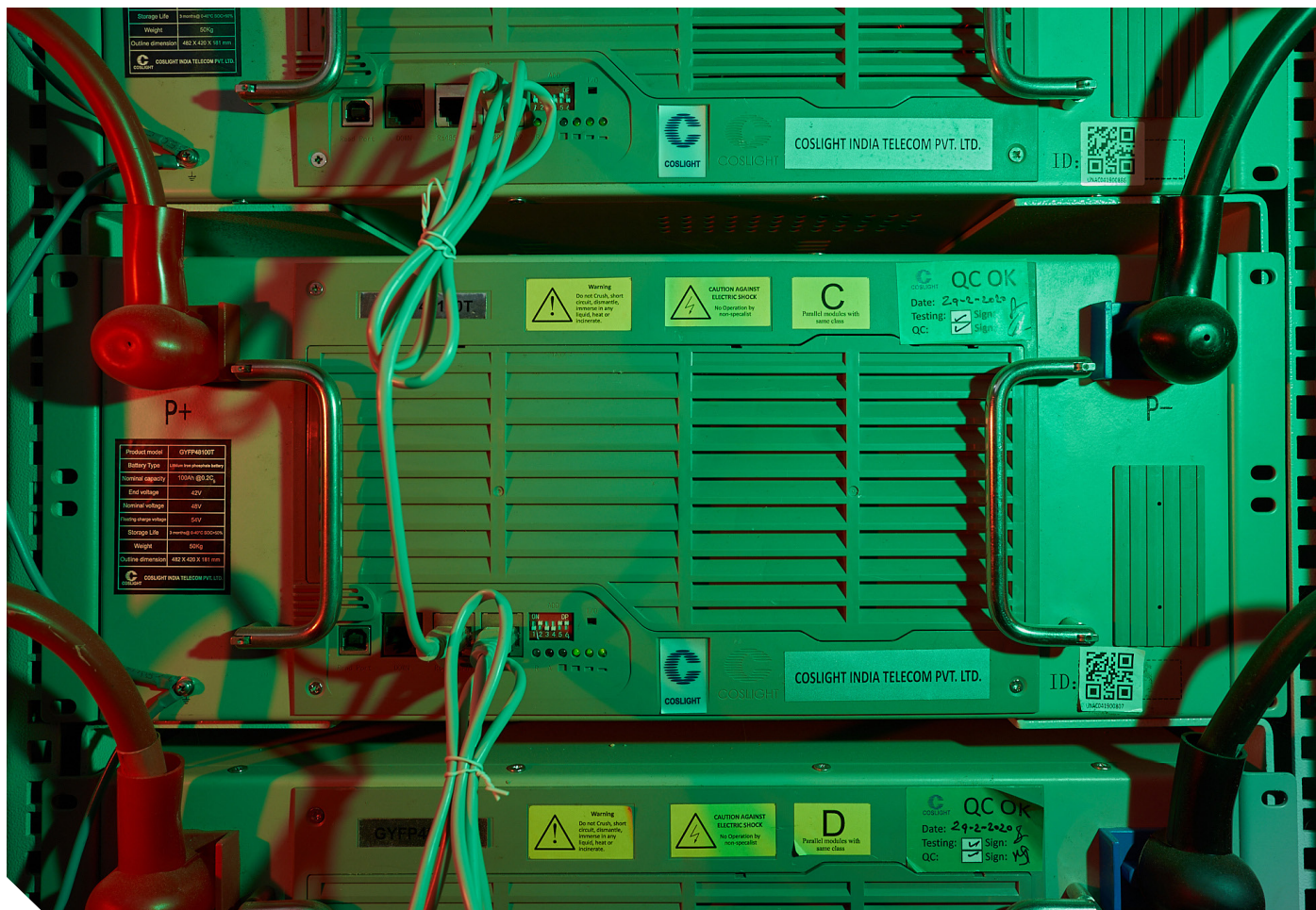
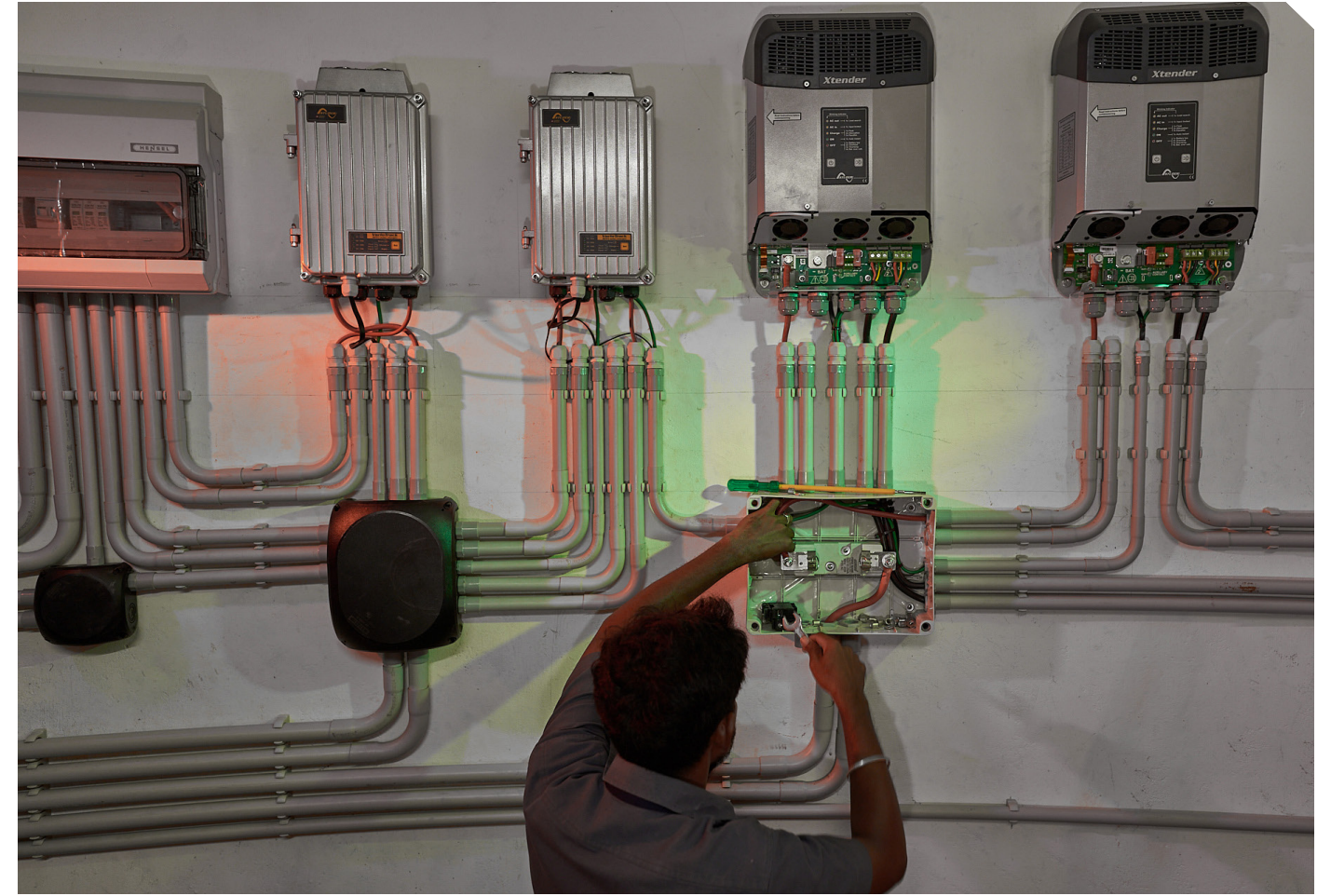
Before Installation



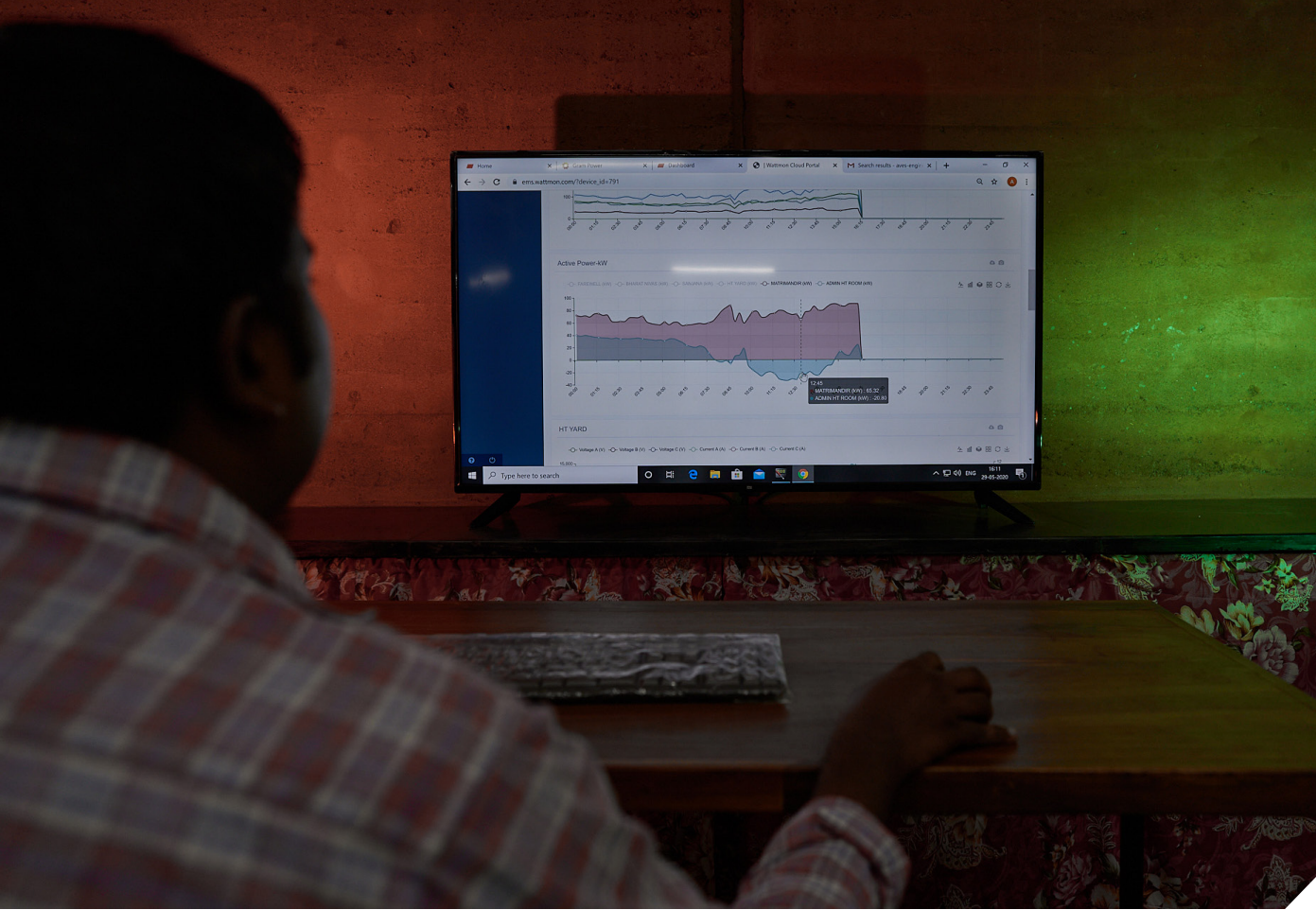


After Installation













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