7.2.2 Upgrade buildings to higher energy efficiency Have plans to upgrade existing buildings to higher energy efficiency

EVIDENCES

S.No.	Existing Item	Modification
1.	Sodium or Halogen Lights	Sensor based LED Lights
2.	Manual operated Overhead Tank	Automatic Sensor based Water Level Controller
3.	Old model Lifts	V3f drive based energy efficient Lifts
4.	Traditional water heater in hostels	Solar based Water heaters in hostels
5.	Sodium or Halogen Street Lights in hostels	Solar powered Street Lights in hostels
6.	CFL or Fluorescent Lights in corridors	Sensor based LED lights in Corridors
7.	Classrooms with Fluorescent Lights	Classrooms with LED Tube Lights

SOLAR STREET LIGHTING IN KARUNYA UNIVERSITY

Fig 1. Solar based Street Light

Total lights Installed in Karunya University are 7 lights

Street Light Installed Place	Panel Used	No. of Lights	Present Condition
Guest House	Crystalline Type	4	Working
Opposite to S&H Auditorium	Crystalline Type	2	Working
Mechanical Building Yard	Crystalline Type	1	Working

Specifications for Solar Street Lights

Electrical Parameters

Panel Type	: Crystalline Type
Cell Type	: High efficiency Solar Cells
Nominal Capacity	: 1*120 W
Peak Power Voltage	: 16.2 Volts
Peak Current	: 8.3 Amps
Tolerance	: ± 5%

Mechanical Parameters

Front cover glass	: Toughened Glass
Encapsulate	: Ethylene Vinyl Acetate (EVA)
Mounting frames	: Anodized aluminium channel
Rear panel	: Polyvinyl Fluoride (PVF)
Junction box	: ABS moulded box
Weight	: 5.4 Kgs

Battery

Electrical Parameters

Normal capacity	: 100 Ampere Hours
Rated current Discharge	: C/10
Normal voltage	: 12V
Self-discharge	: About 0.5% per week
Expected life	: About 1500 cycles

General parameters

Types	: low maintenance lead acid
Construction	: 12V block
Container material	: polypropylene

Solar light controller:

Charge Controller Type And Rating : Series Pulsed Two Step 15A max.

Cable Assembly:

Module to Light Controller	: 4.0 m^{2} - cable with ring terminal
Luminary to Lighting Controller	: 1.5 m^2 dual sheathed cable
Battery to Lightning	: 4.0 m^2 with ring and fork terminal

Solar Water Heating System In Karunya University Hostels

Fig 2. Solar roof top in the Main (Administrative Building)

The Institution has facilities for alternate sources of energy and energyconservation measures

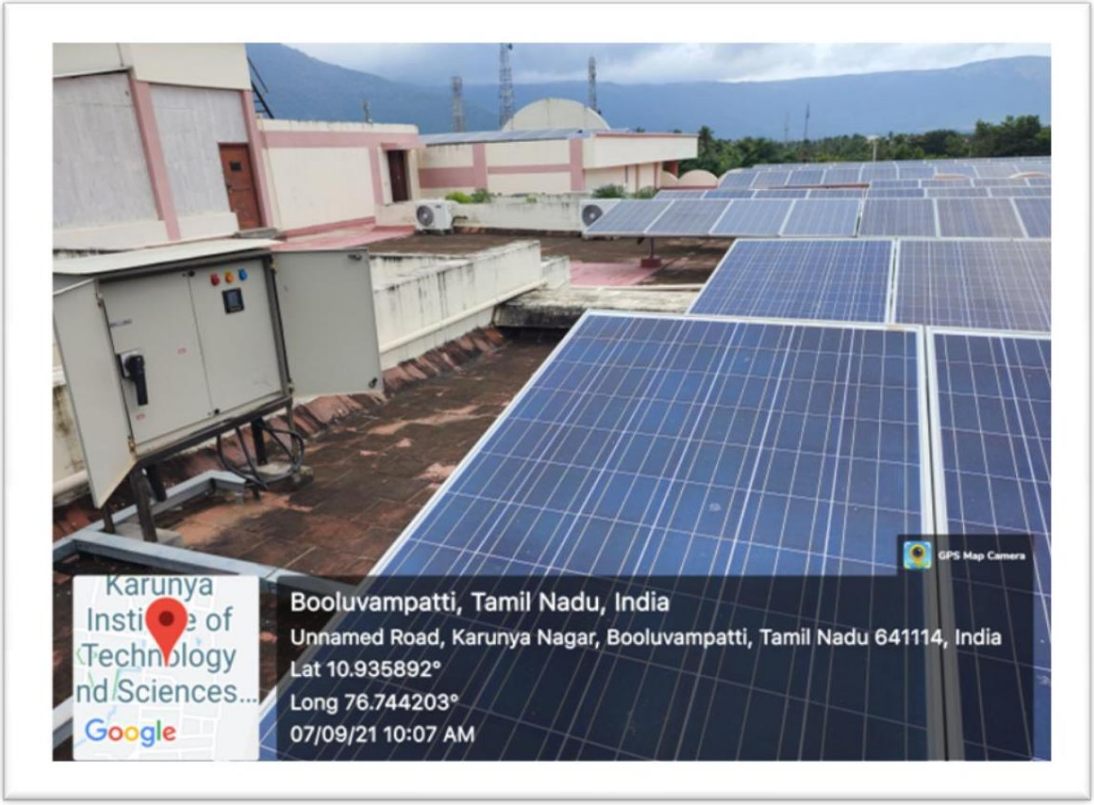

Fig 3. Solar roof top in the Main (Administrative Building)

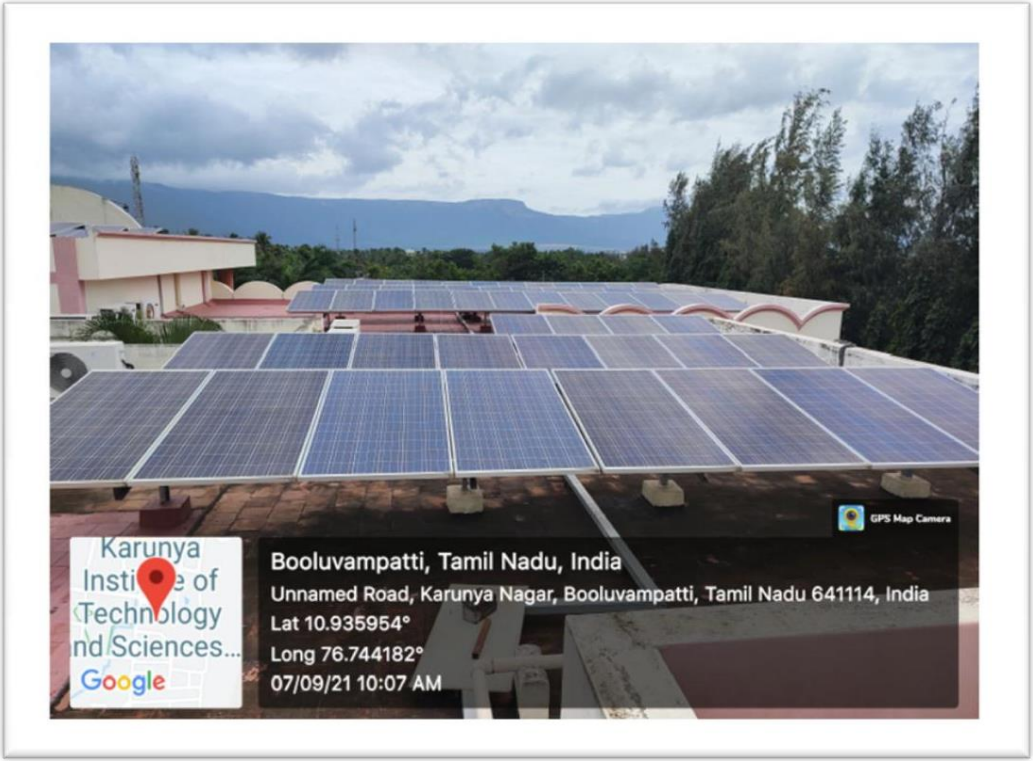

Fig 4. Solar roof top in the Main (Administrative Building)

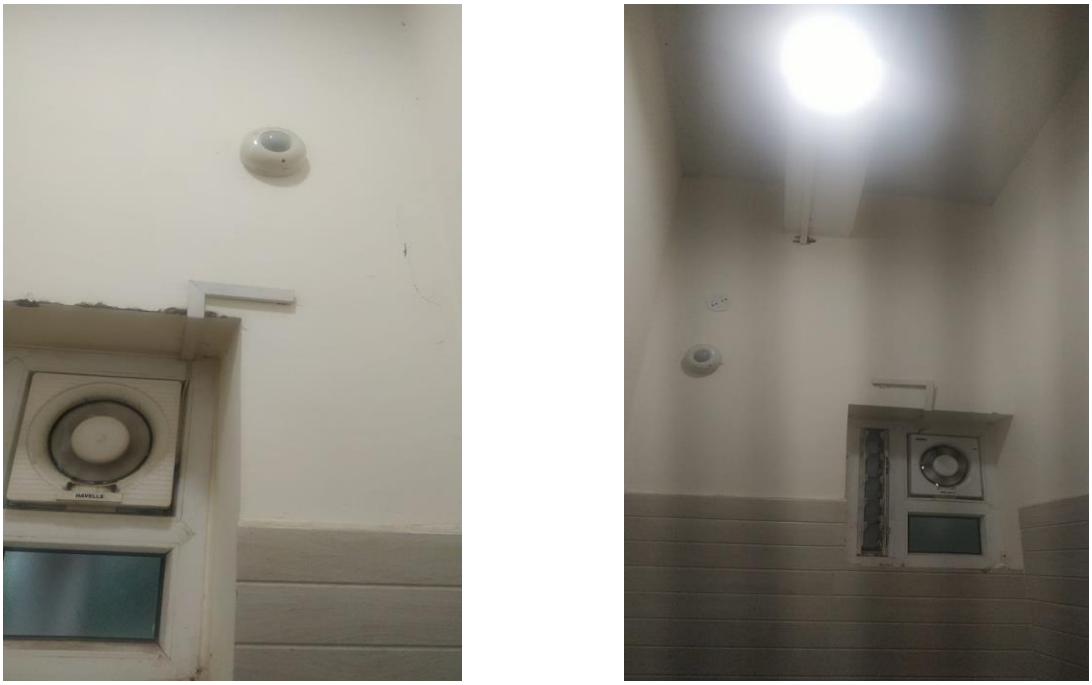

Fig 5. Sensor based LED Lights

Fig 6. Sensor based LED Lights

Fig 7. V3f drive based energy efficient Lifts

Fig 8. V3f drive based energy efficient Lifts

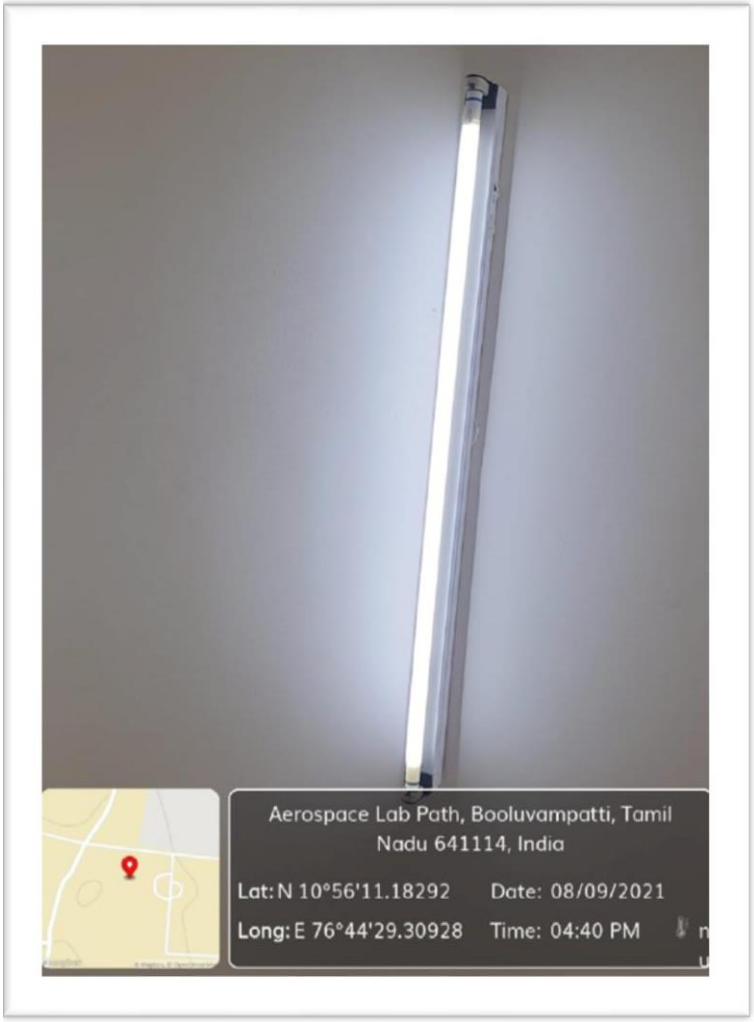

Fig 9. LED Tube Lights in the Classrooms.