

Details of Accredited Test centers for MNRE Off-Grid Programme

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
1.	Central Power Research Institute (CPRI)	M/s Central Power Research Institute (CPRI), Sir C.V. Raman Road, Post Box No. 8066, Sadashiva Nagar(P.O.), Bangalore- 560080	1. Solar Lanterns 2. Solar Home Light 3. Solar street Light 4. Battery 5. Inverter (Efficiency & Environment) 6. Charge Controller (Efficiency & Environment) 7. Solar Pumps	R Sudhir Kumar, Engg, Officer Email: sridharb@cpri.in Phone: 080-23601755
S. No.	Component	Capacity	Time required for testing	Test Charges
1.	Inverters	Upto 5KVA	Two Week	Rs. 65,000/+service tax
		5 to 10 KVA	Two Week	Rs.80,200/+service tax
2.	Pumps	0.2 to 5Hp	1 to 2 weeks/sample	Rs.65,000/+tax
3.	Solar Lanterns	As per MNRE	30-45 days	Rs.32,000/+service tax
4.	Home Lights	As per MNRE	30-45 days	Rs.32,000/+service tax
5.	Street Lights	As per MNRE	30-45 days	Rs.32,000/+service tax

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
2.	National Test House(NTH)	National Test House (ER) Ministry of Consumer Affairs, Food and Public Distribution Department of Consumer Affairs, CP Block, Sector-V, Kolkata-700091	1. Battery	Shri B. R. Mandal, Scientist SB (Elect) Email: brmandal@nth.gov.in Mobile: 08584949137

S. No.	Components	Capacity of Test per months	Time required for test	Test Charges
1.	Secondary Batteries	5 Batches OR 26 Batteries /Cell		
A.i			Capacity Test As per IS 13369(upto 500Ah) –2 Days	25,000/-
A.ii			Efficiency Test(Ah & Wh) As per IS 13369(upto 500Ah) –2 Days	10,000/-
A.iii			Self Discharge Test/ Charge retention Test As per IS 13369(upto 500Ah) –28 Days	10,000/-
A.i v			Endurance Test As per IS 13369(upto 500Ah) –120 Days	80,000/-
			Total Testing Time : 90 Days	Rs.1,25,000/-
B.i			Capacity Test As per IS 15549(upto 500Ah) –2 Days	20,000/-
B.II			Efficiency Test(Ah & Wh) As per IS 15549(upto 500Ah) –2 Days	10,000/-
B.II I			Self Discharge Test/Charge retention Test As per IS 15549(upto 500Ah) –28 Days	10,000/-
B.I V			Endurance Test As per IS 115549(upto 500Ah) –90 Days	80,000/-
			Total Testing Time : 90 Days	Rs.1,20,000/-

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
3.	Electronics Test and Development Centre(ETDC)	100 Feet Road ,Peenya Industrial Estate Bengaluru-560058	1. Battery 2. Solar Lanterns 3. Home Lights 4. Street Lights	Mr. B. Satish Rao/ Mr. S.R. Vijaya Kumar Phone:080 2839 1804

S. No.	Component	Capacity	Time required for testing	Test Charges
1.	Batteries as per IS 1651 & IS 13369	C10 Upto 100A	One Week	Rs. 50,500/+service tax
2.	Solar Lanterns	As per MNRE	One Week	Rs.30,000/+service tax
3.	Home Lights	As per MNRE	One Week	Rs.30,000/+service tax
4.	Street Lights	As per MNRE	One Week	Rs.30,000/+service tax

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
4.	The Energy and Resources Institute (TERI), New Delhi	SOLAR LIGHTING LABORATORY The Energy and Resources Institute (TERI), TERI University, 10 Institutional Area, Vasant Kunj, New Delhi - 110 070, India	1. Solar Lanterns	Mr. Arvind Sharma, Fellow and Area Convenor, The Energy and Resources Institute, IHC Complex! Lodhi Road, New Delhi - 110 003, Email: asharma@teri.res.in, Mb-9818-963-708
S. No.	Component	Capacity	Time required for testing	Test charges
1.	Solar Lantern	As per above	45 days	INR 40,000 + S.T

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
5.	UL India Pvt. Ltd.	M/s UL Block 1, 3rd Floor Kalyani Platina, 24,EPIP Zone Whitefield, Bengaluru 560066 (Karnataka)	<ol style="list-style-type: none"> 1. PV Modules 2. Inverters 3. Solar Pumps 4. Solar Lanterns 5. Solar Street Lights 6. Solar Home Lightings 	Gmail: cec.in@ul.com Tel: +91.80.4138.4400

S. No.	Component	Capacity /Annum	Time required for testing	Test Charges
1.	P V M O D U L E IEC 61215 /61646 /61730 350 Wp	48	10 weeks	15,00,000
	IEC 61701 Ed 2 SL1 350 Wp	24	4 weeks	3,50,000
2.	P V I N V E R T E R S IEC / IS 61683 50 KVA	50	1 week	50,000
	IEC 60068 250 KVA	24	4 weeks	1,75,000
	IEC 62116 50 KVA	50	2 weeks	4,25,000
	IEC 61000 1 MW	50	1 week	3,00,000 to 5,00,000
3.	Solar Pumps 10 HP	200	2 days	75,000

4.	Solar Lanterns	50	2 weeks	1,50,000
5.	Solar Street Lights	50	2 weeks	1,50,000
6.	Solar Home Lighting	50	2 weeks	1,50,000

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
6.	Scientific and Industrial Testing and Research Centre (SiTarc)	83&84 Avarampalayam Road K R Puram Post COIMBATORE - 641006	1. SPV Pumping System - Submersible Pump (AC, DC) 2. SPV Pumping System - Surface Pump (AC, DC)	A.M.Selvaraj, Joint Director

S. No.	Component	Capacity	Time required in Days		Test Charges
			For testing	For Installation	
1.	<u>Pumps</u> SPV Pumping System - Submersible Pump (AC, DC)	0.75kW/1.0HP	4	1	23,150.00
		1.50kW/2.0HP	4	1	26,350.00
		2.20kW/3.0HP	4	1	28,500.00
		3.70kW/5.0HP	4	1	36,550.00
		5.50kW/7.50HP	4	1	42,500.00
		7.50kW/10.0HP	4	1	53,250.00
2.	SPV Pumping System - Surface Pump (AC, DC)	0.75kW/1.0HP	4	1	23,150.00
		1.50kW/2.0HP	4	1	26,350.00
		2.20kW/3.0HP	4	1	28,500.00
		3.70kW/5.0HP	4	1	36,550.00
		5.50kW/7.50HP	4	1	42,500.00
		7.50kW/10.0HP	4	1	53,250.00

Note: Service Tax as applicable

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
7.	TUV Rheinland (India) Pvt. Ltd	17-B, Industrial Area, Electronics City Phase-II, Bangalore-56010	1. PV Modules 2. Solar Home Lightings 3. Solar Pumps 4. Solar Inverters 5. Controllers	Rajesh Gupta/Ganga Charan Sharma/

S. No.	Component	Capacity of Tests per Month	Time required for testing	Test Charges
1.	Solar PV Modules (IEC 61215 & IEC 61730-1&2)	10 projects	2 Months	Rs.20,00,000 / Project
2.	Solar Pumping System	60 projects	24Hrs. / 1 day	Rs.65,000 / combination/Head
3.	Solar Modules(Pumping System)- IEC 61215(IV Curve)		One Day	Rs.5,000 Per Module
4.	Solar Modules with report- IEC 61215(IV Curve with its report)		One Day	Rs.7,500 Per Module
5.	Inverter- Efficiency as per IEC 61683(up to 20KV)- 3 Nos. sample per model	20 projects	6 Days	Rs.2,10,000 Per Model
6.	Inverter-Environmental as per IEC 60068-1,2,14&30-1 No. sample per model	20 projects	12 days	Rs.90,000 Per Model
7.	Inverter-Ingress Protection IP21/IP54/IP65	10 projects	4 Days	Rs.25,000/35,000/45,000 Per Sample
8.	Salt Mist corrosion test as per IEC 61701:2011,sev-1	05 projects	30 Days	Rs.2,55,000/Set of components
9.	PID resistance test as per IEC TS 62804	12 projects	5 Days	Rs.2,55,000 per polarity
10.	Ammonia Corrosion test as per IEC 62716(TUVR Germany)	05 projects	8 Weeks	Rs.7,50,000/Set of components
11.	Fire test MST-23 as per IEC 61730-2(TUVR Germany, USA)	10 projects	3-4 Weeks	Rs.3,75,000/Set of components
12.	IEC 61853-1- PV Module Performance and Energy rating- Irradiance Vs Temp performance measurement and power rating	4 projects	10 Days	Rs.7,50,000/Module type
13.	IEC 61345- PV Module UV Exposure Test	2 projects	3 Months	Rs.5,80,000/Set of components
14.	White LED(W-Led) Based Solar Lantern	15 projects	1 Month	Model-I & Model-IA Rs.50,000/- Considering Battery and PV Module

				already tested.
15.	White LED(W-Led) Based Solar Home lighting Systems	15 projects	1 Month	Model-I & Model-IA Rs.50,000/- Model-II Rs.60,000/- Model-III Rs.65,000/- Model-IV Rs.80,000/- Model-V Rs.65,000/- Considering Battery and PV Module already tested.
16.	White LED(W-Led) Based Solar Street lighting Systems	15 projects	1 Month	Model-I Rs.70,000/- Model-II Rs.85,000/- Considering Battery and PV Module already tested.
17.	Solar Home System (Solar Power Pack) DC Models 1. Solar Power Pack: 75Wp 2. Solar Power Pack: 100Wp 3. Solar Power Pack: 150Wp AC Models 1. Solar Power Pack: 200Wp 2. Solar Power Pack: 250Wp 3. Solar Power Pack: 300Wp	10 projects	1 Month	Rs.1,60,000/- Rs.1,60,000/- Rs.1,60,000/- Rs.2,15,000/- Rs.2,15,000/- Rs.2,15,000/- Considering Battery and PV Module already tested

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
8.	National Institute of Solar Energy (NISE)	19th Milestone Gwal- Pahari, Gurgaon-Faridabad Road, Gurgaon (Haryana) -122003	<ol style="list-style-type: none"> 1. Inverters 2. Batteries 3. PV Module 4. Solar Water Pump 5. LED Home lighting System 	Dr. Rajesh Kumar (DDG, CSC In-charge)

SL No	Components	Capacity of Test per months	Time required for test
1.	Inverters	10	20 working days

Power Converter Range		Fee (₹) (Excluding Service Tax)
Off-grid	On-grid	
upto 1KVA inverters	upto 3KVA inverters	25,000/-
more than 1KVA to 5KVA (48V)	more than 3KVA to 5KVA	35,000/-
more than 5KVA to 10KVA (96V)	more than 5KVA to 10KVA	40,000/-
more than 10KVA to 20KVA	more than 10KVA to 20KVA	50,000/-
more than 20KVA to 50KVA	more than 20KVA to 50KVA	75,000/-

SL No	Components	Capacity of Test per months	Time required for test	Fee (₹) (Excluding Service Tax)	
				Up to 100Ah Capacity	Above 100Ah Capacity
2.	Batteries	--			
	Capacity Test IS13369, IS15549 and IS 1651	50	5 working days	8,400	9,800
	Efficiency Test (Ah & Wh)			16,800	19,600
	Self-discharge Test			16,800	19,600

For all the above three testing minimum 90 working days are required.

SL No	Components	Capacity of Test per months	Time required for test
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3.	PV Module	--	
	STC	150	7 working days
	IEC 61215	3 per year	4 months
	Self-discharge Test	2 per year	2 months

Qualification testing of crystalline silicon/thin film photovoltaic modules as per **IEC61215/IEC61646** specifications (individual tests)*

S.No.	Description	Fee (₹) (Excluding Service Tax)
1.	Visual Inspection	3,500.00
2.	Insulation Test	3,500.00
3.	STC Performance cell / module	3,500.00
4.	Temperature Coefficient	16,800.00
5.	NOCT Measurement	16,800.00
6.	Performance at NOCT	6,300.00
7.	Performance at low irradiance	12,600.00
8.	Outdoor Exposure (60 kWh/m2)	25,900.00
9.	Hot Spot Endurance	17,500.00
10.	UV Exposure	17,500.00
11.	Thermal Cycle	1,96,000.00
12.	Damp Heat Test	2,10,000.00
13.	Humidity Freeze Test	1,05,000.00
14.	Robustness of terminations	3,500.00
15.	Mechanical load (static)	10,500.00
16.	Wet leakage test	3,500.00
17.	Hail Test	3,500.00

SL No	Components	Capacity of Test per months	Time required for test	Fee (₹) (Excluding Service Tax)
4.	Solar Water Pump	15	5 working days	14,000/-

SL No	Components	Capacity of Test per months	Time required for test
5.	LED Home lighting System	20	20 working days

S. No.	Testing Sample	Test Description	Fee per sample (₹.) (Excluding Service Tax)
1.	Solar lantern	Light output and input power measurement	7,000
		Light output & compatibility testing of module battery and load for meeting the duty cycle and autonomy.	14,000
		Full testing as per MNRE / other specs.	28,000
2.	Solar Street Lighting systems	Light output and input power measurement	7,000
		Light output & compatibility testing of module battery and load for meeting the duty cycle and autonomy.	14,000
		Full testing as per MNRE / other specs.	28,000
3.	Solar Home lighting systems	Light output and input power measurement	9,800
		Light output & compatibility testing of module battery and load for meeting the duty cycle and autonomy.	19,600
		Full testing as per MNRE / other specs.	39,200
4.	Charge Controller	Performance evaluation of Charge Controller for Lighting Systems	14,000

S. No.	Test Center	Address	Test Facilities Available for	Contact Person
9.	Electrical Research & Development Association (ERDA)	ERDA, GIDC ROAD, Makarpura, Vadodara, Gujarat -390010	<ol style="list-style-type: none"> Solar Lantern Solar Home Lighting System Solar Street Lighting System 	Mr. Nitin Patel (Head of Section) Email: nitin.patel@erda.org Contact No: 9978940934

S. No.	Components	Capacity of Test per months	Time required for test	Test Charges
1.	White LED (W-LED) based Solar Lantern(Complete PV lighting system including the PV module, Storage battery in full Charge condition, Electronics & Load) as per latest MNRE Specifications/ user specification.	10 Nos.	8 days per sample	Rs. 55,500/-
2.	White LED (W-LED) based Solar home Lighting System (Complete PV lighting system including the PV module, Storage battery in full Charge condition, Electronics & Load) as per latest MNRE Specifications/user specification	10 Nos.	8 days per sample	Rs. 63,500/-
3.	White LED (W-LED) based Solar Street Lighting System (Complete PV lighting system including the PV module, Storage battery in full Charge condition, Electronics & Load) as per latest MNRE Specifications/ user specification	10 Nos.	8 days per sample	Rs. 63,500/-
4.	PV Module as per MNRE specifications(STC Test)	50 Nos.	4 hrs. per module	Rs. 4,500/-
5.	Light Sources as per MNRE specifications (Lux level & color characteristics)	25Nos.	3 days per sample	Rs. 32,000/-
6.	Storage Battery as per MNRE specifications (Capacity Test)	20 Nos.	3 days per sample	Rs. 15,000/-
7.	Electronics as per MNRE specifications(Checking of electronics efficiency)	25 Nos.	3 days per sample	Rs. 6,000/-
8.	Electronics protection as per MNRE specifications(Checking of protection provided)	20 Nos.	3 days per sample	Rs. 6,000/-