

**PBCOE Nagpur** 

#### Lokmanya Tilak Jankalyan Shikshan Sanstha's PRIYADARSHINI BHAGWATI COLLEGE OF ENGINEERING

Harpur Nagar, Umred Road (Near Bada Tajbagh), Nagpur-24 (Approved by AICTE, New Delhi, Govt. of Maharashtra and affiliated to Rashtrasant Tukdoji Maharaj Nagpur University) Email: principalpbcoe@gmail.com, Website: www.pbcoe.edu.in



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### **Key Indicator - 7.1 Institutional Values and Social Responsibilities**

### Metric No: 7.1.2 The Institution has facilities and initiatives for

- 1. Alternate sources of energy and energy conservation measures
- 2. Management of the various types of degradable and nondegradable waste
- 3. Water conservation
- 4. Green campus initiatives
- 5. Disabled-friendly, barrier free environment

### 1. Alternate sources of energy and energy conservation measures

Sr No	Parameter	Page No
1.	PBCOE Commitment to renewable energy.	2
2.	Policy Document of Energy Saving Policy	3
3.	Solar Purchase Bill Document	4
4.	Solar panels mounted at buildings of PBCOE	5
5.	Net Metering Electricity Bill Wheeling to Grid	8
6.	LED lighting in college premises	9

### **Certified documents Page 1-9**

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Harpur Nagar, Umred Road (Near Bada Tajbagh), Nagpur-24 (Approved by AICTE, New Delhi, Govt. of Maharashtra and affiliated to Rashtrasant Tukdoji Maharaj Nagpur University) Email: principalpbcoe@gmail.com, Website: www.pbcoe.edu.in



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## 1. Alternate sources of energy and energy conservation measures



LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S

## PRIYADARSHINI BHAGWATI COLLEGE OF ENGINEERING

(NAAC ACCREDITED)

Harpur Nagar, Umred Road, Nagpur - 440 024 (India) Tel.: +91-712-2710281, Fax: +91-712-2710283 E-mail: principalpbcoe@gmail.com Website: www.pbcoe.edu.in



PBCOE's commitment to Renewable Energy The PBCOE has started solar initiative in the year 2016 with a final year project on solar energy. The project is a hybrid power generation plant of 84KW capacity. It incorporates a three- - tier hybrid power generation system with solar updraft tower technology. The system is fully functional & operates throughout the year irrespective of the seasons. The system is installed in the campus of PBCOE.

During the year 2020-21 the entire PBCOE campus went green as its maximum energy requirements were met by its in house 84 KW solar power system. The system is grid active with net metering system, giving practically 60% reduction in electricity bill.

Dr. N.K.Choudhari Principal C194 Privadarshini Bhagwati Gollege et 2009. Umred Span, Nagoer

19.

Policy Document of Renewable Source Energy



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### 2. Policy Document of Energy Saving Policy



#### LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S

### PRIYADARSHINI BHAGWATI COLLEGE OF ENGINEERING

(NAAC ACCREDITED)

Harpur Nagar, Umred Road, Nagpur - 440 024 (India) Tel.: +91-712-2710281, Fax: +91-712-2710283 E-mail: principalphocologmail.com Website: www.pbcoc.edu.in



The policies laid down for green audit aims to analyze environmental practices within and outside the college campus, leading to an eco-friendly atmosphere. Management and staff of Priyadarshini Bhagwati college of Engineering is committed to carry out Eco Friendly activity and use natural resources to promote sustainability.

#### a) SOLID WASTE POLICY

- Least amount of paper should be used for administrative and academic work. The college prefers ERP software for most of the official work. Other waste papers should be collected from academic buildings & sent to waste paper management centers.
- 2. Use of a dustbin should be encouraged. There are large & small size dustbins placed on all the floors in all the buildings in the campus.
- Food waste generated in the canteens of the college campus should be diverted to the compost pits in the campus.
- 4. To address the issue of plastic pollution causing environmental hazards, the use of one-time-use plastic bottles, cups, folders, pens, & decorative items should be prohibited on the campus.

#### b) ENERGY SAVING POLICY

- Buildings inside the campus in PBCOE are designed in such a way so as to use maximum sunlight during the day which will eventually reduce the use of artificial lights. PBCOE is committed to shift to maximum utilization of solar Energy.
- 2. Use of natural lights through a single south-facing window can illuminate the entire room.
- 3. To save electricity, teaching & non-teaching staff & students should be encouraged to switch off the electricity source while not in use.
- 4. Optimum usage of LED lighting is encouraged, should be replaced with CFL tubes with electronic chokes and LEDs.
- 5. By unplugging unused electronics also we can save unwanted use of electricity.

#### c) WATER CONSERVATION POLICY

- 1. To strengthen Rainwater harvesting practices, rainwater must be collected from rooftops to recharge the groundwater level table.
- Everyone in the campus should contribute to the cause of saving water by closing the taps properly after using.
- 3. The administrative authorities should immediately repair leaking taps,





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## 3. Solar Purchase Bill Document

Galaxy Solar Energy Pvt Ltd : Apr-20	018 Ir	nvoice	No.		Dated			
Plot No. 6A Crown Society, Jagannath Na		Sep/015/19-20		6-Sep-2	6-Sep-2019			
Besa Road, Purti Super Bazar,Nagr GST No. 27AAGCG9851L1ZY GSTIN/UIN: 27AAGCG9851L1ZY State Name: Maharashtra, Code: E-Mail: galaxysolarenergypvtltd@gmail.consignee		gpur Delivery Note		Mode/Terms of Payment				
				Other R	Other Reference(s)			
		Buyer's Order No.			. Dated	Dated		
Priyadarshini Bhagwati College of Engineering Harpur Nagar, Umared Road, Nagpur-44009			V			27-Feb-2019 Delivery Note Date Office of the Principa Destination BCCE		
AN/IT No : Maharashtra, Code : 27		Despatched through			Destina			
over (if other than consignee)	- 1	Tarm	o of Dolin	von/	In	ward	No. 10 DI. 1418	
auyer (if other than consignee) Lokmanya Tilak Jankalyan Shikshan Sanstha Harpur Nagar, Umared Road, Laxminagar, Nagpur-440022			Terms of Delivery			Initial		
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AN/IT No :								
tate Name : Maharashtra, Code : 27 lace of Supply : Maharashtra								
	HSN/	CAC	GST	Quantity	Rate	per	Amount	
Description of Goods	HSN/	SAC	Rate	Quantity	1		/	
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### 4. Solar panels mounted at buildings of PBCOE (Total Capacity 84KW)

PBCOE uses renewable source of energy in the form of installation of solar panel on the rooftop of buildings. The total capacity of solar panel is 84kw. This can decrease the load of electric energy.





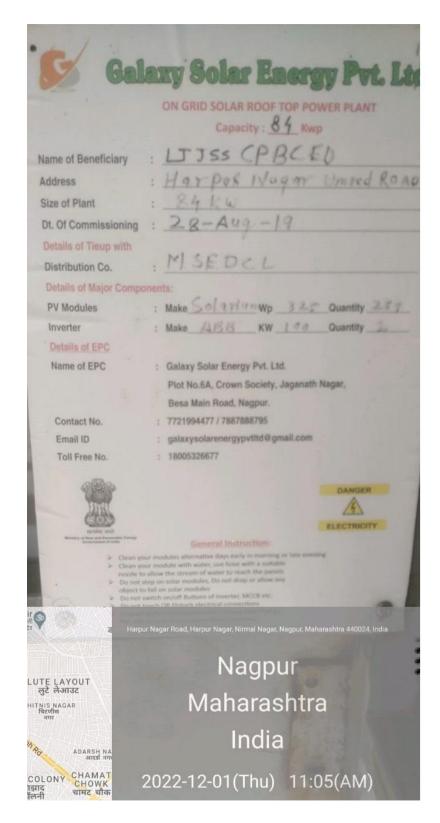
**Solar Panels** 





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Solar Panel Document (Wheeling to grid)



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Net Metering (Wheeling to grid)

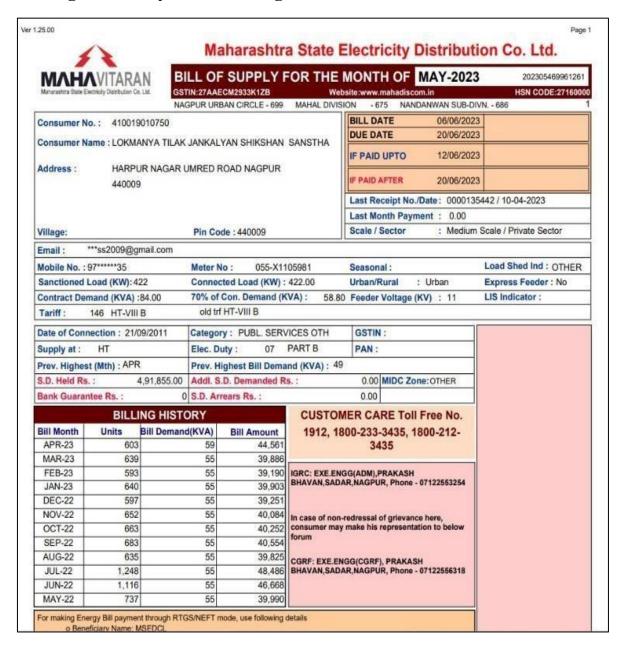




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### 5. Net Metering Electricity Bill Wheeling to Grid





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## **6.LED Light in college Premises**

The light-emitting diode (LED) is today's most energy-efficient and rapidly-developing lighting technology. Quality LED light bulbs last longer, are more durable, and offer comparable or better light quality than other types of lighting.



