Report on Energy, Green Audit And 'E' Waste management of Shri Shivaji Maratha Society's Institute of Management & Research, Pune



Shri Shivaji Maratha Society's
Institute of Management & Research, Pune-9.
Inwara No. 679 | 2019 - 19
Date 23 - 02 - 2019
File No.

Prepared by

Ecosun Energy Company,

S No: 50+52+53, Plot No-2, Snehalkunj Society, Santnagar, off Pune Satara Road, , Pune 411009 Phone: 020-24231915 email: ecosunenergy@yahoo.com

MAHARASHTRA ENERGY DEVELOPMENT AGENC



Maharashtra Energy Development Agency

(A Government of Maharashtra undertaking)

2nd Floor, MHADA Commercial Complex, Opp. Tridal Nagar, Yerwada, Pune 411 006 Ph No: 020-26614393/266144403

Email: ece@mahaurja.com. Web: www.mahaurja.com

ECN/2018-19/CR-05/4591

26th October, 2018

CERTIFICATE OF REGISTRATION FOR CLASS 'A'

We hereby certify that, the firm having following particulars is registered with MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA) under given category as "Energy Planner & Energy Auditor" in Maharashtra for Energy Conservation Programme of MEDA.

Name and Address of the firm

Ecosun Energy Company

S.No. 50+52+53 A. Plot No. 2. Snehalkunj Society. Santnagar, Off, Pune Satara Road, Pune - 411009

Registration Category:

Empanelled Consultant for Energy Conservation

Programme

Registration Number

MEDA/ECN/CR-05/2018-19/EA-08

- · Energy Conservation Programme intends to identify areas where wasteful use of energy occurs and to evaluate the scope for Energy Conservation and take concrete steps to achieve the evaluated energy savings.
- MEDA reserves the right to visit the firm at any time without giving any prior information and canceling the registration, if the information is found incorrect.
- This empanelment is valid till 31st March 2021 from the date of registration, to earry out energy audits under the Energy Conservation Programme
- The Director General, MEDA reserves the right to cancel the registration at any time without assigning any reasons thereof.

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INDEX

Sr. No	Particulars	Page No
1	Acknowledgement	3
II	Executive Summary	4
III	Abbreviations	6
1	Introduction	7
2	Study of Connected Load	9
3	Study of Electrical Energy Consumption	11
4	Carbon Foot printing	13
5	Study of Usage of Alternate Energy Sources	15
6	Study of Usage of LED Lights	16
7	Study of Waste Management	17
8	Study of Rain Water Harvesting	18
9	Energy Conservation Proposals	19



ACKNOWLEDGEMENT

We at Ecosun Energy Company, Pune, express our sincere gratitude to the management of Shri Shivaji Maratha Society's Institute of Management & Research, Aranyeshwar, Pune for awarding us the assignment of Energy & Green Audit of their Campus

We are thankful to:

- Prof Dr Tushar V Dagade, Director
- Prof Rajesh Hukre, Assistant Professor, IT

We are also thankful to various Head of Departments & other Staff members for helping us during the field measurements.



EXECUTIVE SUMMARY

- 1. Shri Shivaji Maratha Society's Institute of Management & Research, Pune consumes Energy in the form of Electrical Energy used for various gadgets, Office & other facilities.
- 2. Present Level of Energy Consumption:

No	Value	Energy Consumed, kWh	CO ₂ emissions, MT
1	Maximum	4900	3.92
2	Minimum	1993	1.59
3	Average	3639.67	2.91

3. Various Majors Adopted for Energy Conservation:

The various projects already implemented by the College are

- Usage of Energy Efficient LED Tubes
- Usage of BEE STAR Rated ACs
- Usage Solar Thermal Water System at Hostel block
- 4. Usage of Alternate Energy Source:

As college got sanctioned for the installation of solar PV system from Pune University. We proposed to install 10kWp solar PV rooftop system, On installation of the roof top Solar PV Project, the percentage of usage of Renewable Energy to the total Power demand would be 27.48 %.

5. Percentage of Lighting Power Requirements met by LED bulbs:

No	Parameter	Value	Unit
1	Total Lighting Load of the campus	23364	kWh/Annum
2	Total LED Lighting Load	1260	kWh/Annum
3	% of LEDs to total Lighting Load	5.39	%

- 6. Waste Management:
- 6.1 Solid Waste Management:

The College has a Bio Composting Pit, wherein the bio-degradable waste is collected & the fertilizer on composting of the same is used for the own Garden in the College premises.



6.2 Liquid Waste Management:

The liquid waste pipe is connected to main Municipal drainage line for further disposal.

6.3 E-Waste Management:

The College authorities have contracted **Hi-tech Recycling India Pvt Ltd**. Authorized e-Waste management vendor having its office at Bhukum Pune to dispose off any wastage generated during the day-to-day operations.

7. Rain Water Harvesting:

The College has already installed Rainwater Harvesting System to collect the Rain Water collected at the Terrace which in turn is used to enrich the bore well water source.

8. Recommendations:

No	Recommendation	Energy Saving, kWh/Annum	CO ₂ reduction, MT/Annum	Monetary Saving, Rs	Investment, Rs	Payback period, Months
1	Replacement of 188 Nos T-8 FTL fittings by 20 W LEDs	6768	5.4	61589	75200	15
2	Installation of 10 kWp Solar PV Plant	12000	9.6	109200	500000	55
3	Total	18768	15	170789	575200	40

9. Notes & Assumptions:

- 1. 1 Unit of Electrical Energy releases 0.8 Kg of CO2 into atmosphere
- 2. 1 kWp Solar PV system generates 4 Units (kWh) of Electrical Energy per Day
- 3. Daily working hours-10 Nos
- 4. Annual working Days-300 Nos
- 5. Average Rate of Electrical Energy: Rs 9.10/- per kWh



ABBREVIATIONS

AC : Air conditioner

BEE : Bureau of energy Efficiency
CFL : Compact Fluorescent Lamp

LED : Light Emitting Diode

kWh : kilo-Watt Hour

Qty : Quantity
W : Watt
kW : Kilo Watt

M No : Meter Number

PC : Personal Computer

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CHAPTER-I INTRODUCTION

1.1 Objectives:

- 1. To study present level of Energy Consumption
- 2. To Study the present CO2 emissions
- 3. To assess the various equipment/facilities from Energy efficiency aspect
- 4. To study Scope for usage of Renewable Energy
- 5. To study various measures to reduce the Energy Consumption

1.2 Audit Methodology:

- 1. Study of connected load
- 2. Study of Electrical Energy Consumption pattern
- 3. Study usage of Renewable Energy Usage
- 4. Study of Lighting Load and Usage of LED Lights
- 5. Study of Rain water harvesting, Waste management
- 6. To prepare the Report with various Energy conservation measures

1.3 Table No-1: General Details of College:

No	Head	Particulars
1	Name	Shri Shivaji Maratha Society's Institute of Management 7 Research
2	Address	Aranyeshwar, Pune
3	Courses Offered	MBA

CHAPTER-II STUDY OF CONNECTED LOAD

In this chapter, we present the details of various Electrical loads as under

2.1 Table No-2: Details of Overall Connected Load:

Sr. No	Location	FTL- 40W	LED- 18 W	CFL- 20W	Halogen (60 watt)	CFL- 2*18W	Fan	AC	PC
	Ground Floor								
1	Seminar Hall	18	0	0	3	0	18	0	0
2	Syndicate	4	0	0	0	0	6	0	0
3	corridor	4	0	0	0	0	0	0	0
4	Class room -3 &	13	0	0	0	0	75	0	0
5	washroom	7	0	0	0	0	0	0	0
6	Principal Office	0	2	0	0	94	15	4	5
7	staffroom	5	0	0	0	0	4	0	3
8	canteen	0	10	0	0	0	0	0	0
9	Parking / Garden	0	0	0	0	0	0	0	0
	1st Floor								
1	Principal Office	0	9	0	0	18	1	2	1
2	classroom	3	0	0	0	0	3	0	0
3	Studio	5	0	0	0	0	4	0	0
4	Common room	6	0	0	0	0	3	0	1
5	Corridor	2	5	1	0	0	0	0	0
6	library	25	0	0	0	0	22	0	10
7	washroom	7	0	0	0	0	0	0	0
	2nd Floor								
1	Corridor	0	8	1	0	0	0	0	0
2	Computer lab-1	11	0	0	0	0	10	4	64
3	Computer Lab-2	.9	0	0	0	0	9	2	60
4	Syndicate	8	0	0	0	0	6	0	0

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Page 9

	Total	188	39	2	3	112	229	12	156
9	staircase	0	5	0	0	0	0	0	
8	washroom	5	0	0	0	0		0	0
7	creative learning	8	0	0	0	0	7	0	0
6	Library	8	0	0	0	0	7	0	0
5	Class room-2	5	0	0	0	0	6	0	0
4	faculty room	4	0	0	0	0	4	0	1
3	Class room-1	4	0	0	0	0	5	0	1
2	Admin Room	5	0	0	0	0	5	0	9
1	Board room	6	0	0	0	0	2	0	0
	3rd Floor								
6	Architect studio	12	0	0	0	0	12	0	0
5	class room-1	4	0	0	0	0	5	0	1

Now we present the connected load- Equipment wise in the following Table. Table No-3: Study of Equipment wise Connected Load:

No	Equipment	Qty	W/Unit	Load, kW
1	FTL-40W	188	40	7.52
2	LED-18 W	39	18	0.70
3	CFL-20W	2	24	0.05
4	Halogen (60 watt)	3	75	0.23
5	CFL-2*18W	112	40	4.48
6	Fan	229	65	14.89
7	AC	12	2025	24.3
8	PC	156	100	15.6
9	Others	12	100	1.2
10	Total			69.0

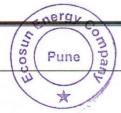
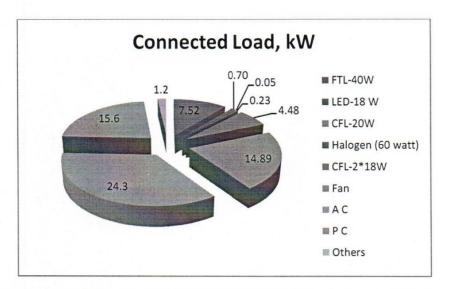


Chart No-1: Details of Connected Load:



Note: From the above Table, we observe that out of Total Connected Load of **69 kW**, the load due to ACs is **24.3 kW** & of Lighting is about **8.5 kW**.

Pane Day

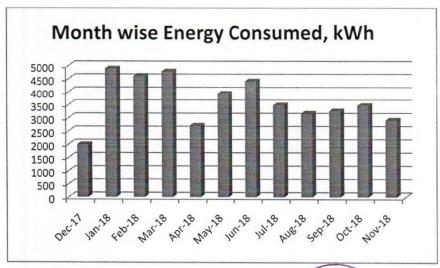
CHAPTER-III STUDY OF ELECTRICAL ENERGY CONSUMPTION

In this chapter, we present the analysis of last year Electricity Bills

Table No 4: Electrical Bill Analysis- 2017-18:

No	Month	Energy Consumed, kWh
1	Dec-17	1993
2	Jan-18	4900
3	Feb-18	4612
4	Mar-18	4785
5	Apr-18	2708
6	May-18	3940
7	Jun-18	4419
8	Jul-18	3494
9	Aug-18	3170
10	Sep-18	3264
11	Oct-18	3473
12	Nov-18	2918
13	Maximum	4900
14	Minimum	1993
15	Average	3639.67

3.1.1 To study the variation of Monthly Maximum Demand, kVA:



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Page 12

Table No 5: Key observations:

No	Value	Energy Consumed, kWh
1	Maximum	4900
2	Minimum	1993
3	Average	3639.67

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CHAPTER-IV CARBON FOOTPRINTING

4.1 A Carbon Foot print is defined as the Total Greenhouse Gas emissions, emitted due to various activities.

In this we compute the emissions of Carbon-Di-Oxide, by usage of the various forms of Energy used by the College for performing its day to day activities

The College uses Electrical Energy for various Electrical gadgets.

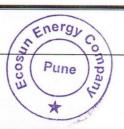
4.2 Basis for computation of CO₂ Emissions:

The basis of Calculation for CO₂ emissions due to Electrical Energy are: 1 Unit (kWh) of Electrical Energy releases **0.8 Kg of CO₂** into atmosphere

Based on the above Data we compute the CO₂ emissions which are being released in to the atmosphere by the College due to its Day to Day operations

4.3 Table No 6: Month wise CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO2 emissions, MT
1	Dec-17	1993	1.59
2	Jan-18	4900	3.92
3	Feb-18	4612	3.69
4	Mar-18	4785	3.83
5	Apr-18	2708	2.17
6	May-18	3940	3.15
7	Jun-18	4419	3.54
8	Jul-18	3494	2.80
9	Aug-18	3170	2.54
10	Sep-18	3264	2.61
11	Oct-18	3473	2.78
12	Nov-18	2918	2.33
13	Maximum	4900	3.92
14	Minimum	1993	1.59
15	Average	3639.67	2.91



4.4 Representation of Month wise CO₂ emissions:

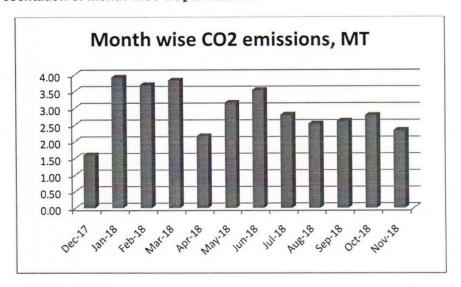


Table No 7: Key observations:

No	Value	CO2 emissions, MT
1	Maximum	3.92
2	Minimum	1.59
3	Average	2.91



CHAPTER-V STUDY OF USAGE OF ALTERNATE ENERGY SOURCES

5.1 Roof Top Solar PV Plant:

The College has decided to install a 10 kWp Roof top Solar PV Plant. We present the Annual Energy generated by 10 kWp Solar PV plant as under.

Table No 8: Computation of Annual Energy generated by 10 kWp Solar PV Plant:

No	Particulars	Value	Unit
1	Solar PV Plant Capacity	10	kWp
2	Average Energy Generated by 1 kWp Solar PV Plant	4	kWh/kWp
3	Energy Generated by 10 kWp Plant per Day	40	kWh/Day
4	Annual Operating Days	300	Days/Annum
5	Annual Energy Generated = (3) * (4)	12000	kWh/Annum

5.2 Computation of Percentage of Power Requirement met by the Renewable Energy Source: On installation of Roof top Solar PV Plant:

In the following Table, we present the Percentage of Power Requirement met by the Renewable Energy Source, as under:

Table No 9:

No	Particulars	Value	Unit
1	Annual Electrical Energy Demand of Institute	43676	kWh/Annum
2	Energy Generated by 10 kWp Solar PV Plant	12000	kWh/Annum
3	% of Total Power met by Renewable Energy = (2) * 100 / (1)	27.48	%

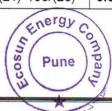
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CHAPTER-VI STUDY OF USAGE OF LED LIGHTS

In the following Table, we present the Percentage of Lighting Power Requirement met by the LED fittings:

Table No 10: Computation of % of total Lighting Power met by LED Lighting:

No	Equipment	Value	Unit
1	No of 40 W FTLs	188	Nos
2	Consumption of 40 W FTL fitting	40	W/Unit
3	Total Electrical Load of 40 W FTL Fittings	7.52	kW
4	No of 18 W LED Tubes	39	Nos
5	Consumption of 20 W LED fitting	18	W/Uni
6	Total Electrical Load of 18 W Fittings	0.70	kW
7	No of 20 W CFL Fittings	2	Nos
8	Consumption of 20W CFL fitting	24	W/Uni
9	Total Electrical Load of 20W CFL Fittings	0.05	kW
10	No of 2*18 W CFL fittings	112	Nos
11	Consumption of 2*18 W CFL fitting	40	W/Uni
12	Total Electrical Load of 2*18 W CFL Fittings	4.48	kW
13	No of 60 W Halogen fittings	2	Nos
14	Consumption of 60 W Halogen fitting	75	W/Uni
15	Total Electrical Load of 60 W Halogen Fittings	0.23	kW
16	Total LED Lighting Load = (6)	0.70	kW
17	Total Lighting Load = (3)+(6)+(9)+(12)	12.98	kW
18	Daily Operating period	6	Nos
19	Annual Operating Days	300	Nos
20	Total Annual Lighting Load= (17)*(18)*(19)	23364	kWh
21	Total Annual LED Lighting Load =(16)*(18)*(19)	1260	kWh
22	Percent of Total Lighting Load met by LED =(21)*100/(20)	5.39	%



CHAPTER VII STUDY OF WASTE MANAGEMENT

In this Chapter, we study the Waste management systems of the College.

7.1 Solid Waste Management:

The College has one mess and one canteen. During the day to day operation, a good quantity of Bio degradable waste is generated. The Institute has opted route of Bio-composting. The waste is collected in a Pit and with the help of bio-culture, it is converted in to a Bio- fertilizer, which in turn is used for own garden.

Photograph of Bio-Composting Pit:



7.2 e-Waste Management:

The internal communication of the College is through Internet within the staff members. There are hardly any floppies or CDs used for day to day operations. Hence as far as the e-waste is concerned hardly any waste is generated during the day to day operations. In addition to this the College authorities have already finalized Authorized e-Waste management agency to dispose of the old equipment. The Agency is on the panel of Maharashtra Pollution Control Board.



CHAPTER-VIII STUDY OF RAIN WATER HARVESTING

The College has already implemented the Rain Water Harvesting Project. The College has installed Pipes from the terrace and the Rain water falling on the terrace is gathered and is fed to the Main Water Storage Tank.

Photograph of Rain water Harvesting project:





CHAPTER- IX ENERGY CONSERVATIN PROPOSALS

ECP-1: Installation of 10 KW Solar PV Plant:

It is recommended to install 10 KW Roof top Solar PV Plant. In the following Table, we present the saving potential.

No	Particulars	Value	Unit
1	Design Load	10	kW
2	Avg Units Gen/kWp of Solar PV Plant	4	kWh/Day
3	Daily Average Units generated	40	kWh/Day
4	Annual units generated	12000	kWh/Annum
5	Annual reduction in CO2 emissions	9.6	MT/Annum
6	Rate of Electrical Energy	9.1	Rs/kWh
7	Annual Saving potential	109200	Rs lump sum
8	Cost of Solar PV Plant	0.5	Lakh/kW
9	Investment Required	500000	Rs lump sum
10	Simple Payback period	55	Months



ECP-2: Replacement of 188 Nos T-8 Fittings with 20 W LED Fittings:

In the College, there are about 188 Old, T-8 fittings. It is recommended to replace all the T-8 fittings with 20 W LED fittings, in a phased manner.

In the following Table, we present the saving potential on replacement of 188 Ns FTLs

No	Particulars	Value	Unit
1	No of Old T-12 fittings	188	Nos
2	Load of an individual T-12 fitting	40	W/Unit
3	Load of a 20 W LED fitting	20	W/Unit
4	Saving achievable on replacement	20	W/Unit
5	Daily usage period	6	Hrs/Day
6	Daily Energy saved	22.56	kWh/Day
7	Annual Working Days	300	Days/Annum
8	Annual Energy Saved	6768	kWh/Annum
9	Annual reduction in CO2 emissions	5.4	MT/Annum
10	Rate of Electrical Energy	9.1	Rs/kWh
11	Annual Monetary Saving	61589	Rs lumpsum
12	Investment required	75200	Rs lumpsum
13	Simple Payback period	15	Months

Summary of Recommendations:

No	Recommendation	Energy Saving, kWh/Annum	CO ₂ reduction, MT/Annum	Monetary Saving, Rs	Investment, Rs	Payback period, Months
1	Replacement of 188 Nos T-8 FTL fittings by 20 W LEDs	6768	5.4	61589	75200	15
2	Installation of 10 kWp Solar PV Plant	12000	9.6	109200	500000	55
3	Total	18768	15	170789	575200	40

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Page 21

Shri Shivaji Maratha Society's

INSTITUTE OF MANAGEMENT & RESEARCH

AN ISO 9001: 2008 CERTIFIED INSTITUTE

(AFFILIATED TO SAVITRIBAI PHULE PUNE UNIVERSITY, APPROVED BY AICTE, NEW DELHI)

S. No. 74/1A/1B, Parvati, Taljai Hill Road, Aranyeshwar, Pune - 411 009.

Phone: 020-24222612, Direct line: 020 - 24214310

e-mail: director@imrpune.in Website: www.imrpune.in

Dr. Sangeeta Birjepatil Director

Ref. No. 742/2017-18

Date: 15-3-2018

प्रति, नियोजन व विकास विभाग, सावित्रीबाई फुले पुणे विद्यापीठ गणेशखिंड, पुणे ४११००७

विषय :- शैक्षणिक वर्ष २०१७-१८ साठी गुणवत्ता सुधार (QIP) योजने अंतर्गत सोलर सिस्टीम संदर्भात विद्यापीठाची इनस्पेक्शन कमिटी मिळणेबाबत...

मा . महोदय.

वरील विषयास अनुसरून आमच्या इन्स्टिटयूटला शैक्षणिक वर्ष २०१७-१८ साठी (QIP) योजने अंतर्गत सोलर सिस्टीम खरेदी करण्यासंदर्भात विद्यापीठाने रक्कम रू.५,00,000/- इतकी रक्कम मंजूर केलेली आहे . त्यानुसार आपल्या नियमाप्रमाणे इन्स्टिटयूटला सौर उर्जा उपकरणे बसविण्याकरिता विद्यापीठाची इनस्पेक्शन कमिटी भेटीसाठी प्रत्यक्ष पाहणी अहवाल पडताळणीसाठी रक्कम रू.५,000/- इतके मा. वित्त व लेखाधिकारी, सावित्रीीबाई फुले पुणे विद्यापीठ, पुणे ०७ यांचे नावाने एम एल सी . कोड नं ११०३७ (Charges for Proposal of solar Energy Equipment) कोड नं. ९४ चलन नंबर ५४ या चलना द्वारे दि. १५.३.२०१८ रोजी बॅक ऑफ महाराष्ट्र, सहकार नगर पुणे ०९ या शाखेत जमा केलेले आहे.

तरी सौर उर्जा उपकरणे बसविण्याकरिता विद्यापीठाची कमिटी भेटीसाठी प्रत्यक्ष पाहणी करण्यासाठी मिळावी हि विनंती.

कळावे.

सोबत : १) विद्यापीठाची सोलर सिस्टीम खरेदीसाठी रक्कम रू.५,00,000/- इतकी मंजूरीची प्रत

२) विद्यापीठाचे चलन

आपली विश्वास .

Shri Shivaji Maratha Society's Institute of Management & Research

Pune-411009.

Shri Shivaji Maratha Society's stitute of Management & Research Pune-411009.





Savitribai Phule Pune University

Planning And Development

Applications for financial assistance for Rooftop Solar System during the financial year 2017-18

l.(a)	Name of the College/ Institute		Institute of Management And		
(b)	Address in Details	:	Survey No 74/1 A B Parvati, Aranyeshwar Pune Ta: Pune (corporation Area) Dist: PunePincode: 411009		
(c)	Telephone No.	:	02024222612		
(d)	Email	:	director@imrpune.in		
(e)	District	:	PUNE		
2.	Affiliated to Savitribai Phule Pune University	:	Yes	(Please attac Copy)	ch Affiliation letter
3.	Name of the Principal/Director		Sangeeta Ajay Birjepatil	il	
	Mobile No:	:	9822446506		
	Principal/Director Approved?	:	Yes-Acting	Copy)	ase attach approval
4.	Whether accredited by NAAC/NBA	:		(If Yes, Plea	ase attach Copy)
5.	Whether AISHE DCF-II & M.I.S Information Uploaded :		Yes-C-41544-2016-2016	(If 'Yes', P	lease attach Copy)
6.	Annual Report Information Given to University (Pervious Academic Year 2016-17)	:	Yes	(If Yes, atta	
7.	Last Year Q.I.P. Sanctioned Grant Utilized	:	Yes	(If ,'No' Ple Clarificatio	ase attach Letter of
8.	University All types of contribution i.e. Student Welfare Fund, Sports, Admission Section Prorata, Affiliation fee, etc. paid by college/Institutes		Yes	(If Yes, Ple	ase attach Copy)
9.	Is the College/Institute in Tribal Area?	:	No .		ease attach Copy of a college certificate of thority)
10.	Proposed Rooftop Area (Sq.Ft)	:	800SQFT/9KVA		
(a)	P V Type of system & kw	:	Grid-Tided		
(b)	Estimated Cost Rs.	:	628650.00		
(c)	Net amount required Rs.	;	500000.0000		
11.	Is the College declared fit to receive grants under section 12(B) of UGC Act.	:	No . (If Yes, Please attach Copy)		ease attach Copy)
12.	Details of Pervious sanctioned grant attach Copy of Sanction Letter)	by	University for Construction/	Civil work (Plea	se
	Year of Sanction (Date & Letter No.)		Name of Constru	ction	Amount
Die Te	Nil		Nil		0
13.	Any other information	T	Nil 1	(annex sep	arate sheet, if any)

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Shri Shivaji Maratha Society's hatitute of Management & Research Punc-411009.







Annexure-2

Savitribai Phule Pune University

Planning And Development

(महाविद्यालय / संस्थेच्या लेटरहेडवर) हमीपत्र

या हमिपत्राद्वारे लिहून देतो की महाविद्यालये/संस्थेने गुणवत्ता सुधार योजनेअंतर्गत सौर ऊर्जा उपकरणे बसविण्याकरिता सावित्रीबाई फुले पुणे विद्यापीठाव्यतिरिक्त अन्य कोणत्याही वित्तीय संस्था अथवा देणगीदारांकडून आर्थिक सहाय्य घेतलेले नाही व सौर ऊर्जा उपकरणे बसविण्याकरिता असलेली जागा/इमारत ही संस्थेच्या/महाविद्यालयाच्या मालकीची आहे/ सौर ऊर्जा उपकरणे बसविण्याकरिता असलेली जागा/इमारत ही संस्थेने/महाविद्यालयाने दीर्घ मुदतीच्या...... वर्षाच्या भाडेकरारावर सन या सालापासून घेतलेली आहे.

तसेच महाविद्यालये/संस्थेने गुणवत्ता सुधार योजनेअंतर्गत आर्थिक वर्ष 2017-2018 पूर्वी घेतलेल्या उचल रकमेअंतर्गत कोणतेही बांधकाम अपूर्ण नाही.

> सेक्रेटरी किंवा अध्यक्ष स्वाक्षरी व सील

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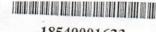
प्राचार्य/संचालक स्वाक्षरी व सील

In-Charge Director
Shri Shivaji Maratha Society's
Institute of Management & Research
Pune-411 009.

Director

Shri Shivaji Maratha Society's Institute of Management & Research Pune-411009.





18540001623

SAVITRIBAI PHULE PUNE UNIVERSITY

Challan for Charges to Proposal of Solar Energy Equipment



University Copy

Print Time: 14/Mar/2018 16:53:48

Bank Name: BANK OF MAHARASHTRA

Fee Type Amount (Rs.) Solar Visit Charges (111037) 5000.00

This receipt is valid subject to realization of the payment instrument.

Name of College and Challan Number:

Shri Shivaji Maratha Society Institute of Management And

Addr: Survey No 74/1 A B Parvati Aranyeshwar Pune Tal: Pune (corporation Area) Dist: Pune [18540001623]

Total Amount : Rs. 5000.00

Rs.(In words) : Five Thousand rupees only

SAVITRIBAI PHULE PUNE UNIVERSITY



dlan No.: 18540001623

Name of College and Challan Number:

Shri Shivaji Maratha Society Institute of Management And research

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Total Amount : Rs. 5000.00

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Mode of i syment: CASH

Details: 15-3-2018

Bank Copy

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Bank Name: BANK OF MAHARASHTRA

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Name of A/C Holder: Finance & Accounts Officer, Savitribai Phule Pune University, Pune-

Total Amount Rs.

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This Challan is Valid Upto 02 April 2018.

Director

Shri Shivaji Maratha Society's Institute of Management & Research

Pune-411009.

Shri Shivaji Maratha Society's Institute of Management & Research Pune-411009.







SAVITRIBAI PHULE PUNE UNIVERSITY

Challan for Charges to Proposal of Solar Energy Equipment

SAVITRIBAI PHULE PUNE
UNIVERSITY
Generalshing Pune-411 007



18540001623

Name of College and Challan Number:

Shri Shivaji Maratha Society Institute of Management And

Addr: Survey No 74/1 A B Parvati Aranyeshwar Pune Tal: Pune (corporation Area) Dist: Pune [18540001623]

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: Five Thousand rupees only

CASH RECEIVED

Out house

Director

Institute of Management & Research Shri Shivaji Maratha Society's Pune 411009.



Institute of Management & Research Shri Shivaji Maratha Society's Pune-411009.





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Name of College and Challan Number.

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SAVITABAI PHOLE PUNE UNIVERSITY

Mrector

Shri Shivaji Maratha Society's

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