

### **7.1.2 The Institution has facilities for Alternate sources of Energy and Energy Conservation measures**

#### **Solar Energy:**

Energy conservation refers to the methods of reduction in energy consumption by way of elimination of wastage and promotion of efficiency. The Energy saving initiatives can be reduced expenditure over the whole organization with very low capital investment and requirements and can continue to do so over a very long period. Our college also taking measures to conserve energy by utilizing solar energy installed 4 solar panels on roof top of the college. The power generated through the solar panels is utilized for running commerce computer Lab. In near future we are planning to extend the solar system utilization throughout the college needs.

#### **LED Bulbs/Power Efficient equipment:**

Tube lights are replaced with LED bulbs in the entire college, with this we are saving lot of electric energy.

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TIRUMALA TIRUPATI DEVASTHANAMS

**S.G.S. ARTS COLLEGE**

**Tiruchanur Road, TIRUPATI-517501**

**Prof N. VENUGOPAL REDDY**, M.Sc., M.Phil., Ph.D  
PRINCIPAL (FAC)

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**7.1.2 Institutional facilities for alternate sources of energy and energy conservation measures  
Academic Year 2020-21**

<b>Lighting through Fluorescent Bulbs(Tube Lights)</b>	<b>Numbers</b>	<b>Watts</b>	<b>Utilization of Hours</b>	<b>Days per Month</b>	<b>Total Watts</b>
Ground floor	280	40	2	25	560000
First floor	320	40	2	25	640000
Second floor	220	40	2	25	440000
Open area	16	84	10	30	403200
Total Watts	836	--	--	--	2043200

<b>Lighting through LED Bulbs</b>	<b>Numbers</b>	<b>Watts</b>	<b>Utilization of Hours</b>	<b>Days per Month</b>	<b>Total Watts</b>
Ground floor	209	18	2	25	188100
First floor	243	18	2	25	218700
Second floor	184	18	2	25	165600
Open area	0	0	0	0	0
Total Watts	636	--	--	--	572400

**Consumption of Power by Fluorescent Bulbs(Tube Lights) VS  
LED Bulbs(KWH)/Per Month**

<b>Fluorescent Bulbs(KWH)</b>	<b>LED Bulbs(KWH)</b>	<b>Difference of Power Consumption(KWH)</b>
2043200	572400	1470800



# TIRUMALA TIRUPATI DEVASTHANAMS

## S.G.S. ARTS COLLEGE

Tiruchanur Road, TIRUPATI-517501

### 7.1.2 Statement regarding Lighting Resources Academic Year 2019-20

Lighting through Fluorescent Bulbs(Tube Lights)	Numbers	Watts	Utilization of Hours	Days per Month	Total Watts
Ground floor	280	40	5	25	1400000
First floor	320	40	5	25	1600000
Second floor	220	40	5	25	1100000
Open area	16	84	10	30	403200
Total Watts	836	--	--	--	4503200

Lighting through LED Bulbs	Numbers	Watts	Utilization of Hours	Days per Month	Total Watts
Ground floor	209	18	5	25	470250
First floor	243	18	5	25	546750
Second floor	184	18	5	25	414000
Open area	0	0	0	0	0
Total Watts	636	--	--	--	1431000

### Consumption of Power by Fluorescent Bulbs(Tube Lights) VS LED Bulbs(KWH)/Per Month

Fluorescent Bulbs(KWH)	LED Bulbs(KWH)	Difference of Power Consumption(KWH)
4503200	1431000	3069200

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TIRUMALA TIRUPATI DEVASTHANAMS



# S.G.S. ARTS COLLEGE

Tiruchanur Road, TIRUPATI-517501

**7.1.2 Statement regarding Lighting Resources  
Academic Year 2018-19**

Lighting through Fluorescent Bulbs(Tube Lights)	Numbers	Watts	Utilization of Hours	Days per Month	Total Watts
Ground floor	310	40	5	25	1550000
First floor	350	40	5	25	1750000
Second floor	270	40	5	25	1350000
Open area	16	84	10	30	403200
Total Watts	946	--	--	--	5053200

Lighting through LED Bulbs	Numbers	Watts	Utilization of Hours	Days per Month	Total Watts
Ground floor	175	18	5	25	393750
First floor	220	18	5	25	495000
Second floor	160	18	5	25	36000
Open area	0	0	0	0	0
Total Watts	555	--	--	--	1248750

**Consumption of Power by Fluorescent Bulbs(Tube Lights) VS  
LED Bulbs(KWH)/Per Month**

Fluorescent Bulbs(KWH)	LED Bulbs(KWH)	Difference of Power Consumption(KWH)
5053200	1248750	3804450

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TIRUMALA TIRUPATI DEVASTHANAMS

# S.G.S. ARTS COLLEGE

Tiruchanur Road, TIRUPATI-517501

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**7.1.2 Statement regarding Lighting Resources**  
**Academic Year 2017-18**

Lighting through Fluorescent Bulbs(Tube Lights)	Numbers	Watts	Utilization of Hours	Days per Month	Total Watts
Ground floor	310	40	5	25	1550000
First floor	350	40	5	25	1750000
Second floor	270	40	5	25	1350000
Open area	16	84	10	30	403200
Total Watts	946	--	--	--	5053200

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TIRUMALA TIRUPATI DEVASTHANAMS

# S.G.S. ARTS COLLEGE

Tiruchanur Road, TIRUPATI-517501

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## 7.1.2 Statement regarding Lighting Resources Academic Year 2016-17

Lighting through Fluorescent Bulbs(Tube Lights)	Numbers	Watts	Utilization of Hours	Days per Month	Total Watts
Ground floor	310	40	5	25	1550000
First floor	350	40	5	25	1750000
Second floor	270	40	5	25	1350000
Open area	16	84	10	30	403200
Total Watts	946	--	--	--	5053200



# TIRUMALA TIRUPATI DEVASTHANAMS

## S.G.S. ARTS COLLEGE

Tiruchanur Road, TIRUPATI-517501

Statement of Electrical Works of S.G.S.ARTS COLLEGE, TTD, Tirupati		
S.No.	Name of Work	Estimate Amount (Rs.in Lakhs)

### Year 2018-19

#### MAINTENANCE

- |   |   |      |
|---|---|------|
| 1 | AME for IEI/ EEI works to street / Road/ yard light temporary illuminations, Transformer S/s etc in 2nd NC, 3rd NC, GNB Quarters, SGS Arts college in ESD-West, Tpt for the year 2018-19<br>(D.R.No. 66/DE-II/ Tpt/18-19)   | 4.60 |
| 2 | AME for servicing AMF/APFC Panels and UPS Systems available at AE-Choultry section in ESD-West, Tpt for the year 2018-19<br>(D.R.No. 67/DE-II/ Tpt/18-19)   | 2.04 |
| 3 | AME for providing Temp. illuminations (on hire basis) to 2nd NC Metlostavams, SGS Arts College & its Hostels and Sri Venkateswara swamy Temple, Thondamanadu fairs & festivals etc., pertaining to AE (Choultry section) in ESD-West, Tpt during Fairs & Festivals of TTDs for the year 2018-19<br>(D.R.No. 124/DE-II/ Tpt/18-19) | 4.00 |
| 4 | AME for providing Power mains and Additional Fixtures to various locations in AE-Choultry section in ESD-West, Tpt<br>(D.R.No. 146/DE-II/ Tpt/18-19)  | 5.00 |

#### CAPITAL

- |   |  |       |
|---|--|-------|
| 1 | Replacement of existing conventional type street light fixtures with LED street light fixtures in ESD-west, Tpt 2018-19<br>(CR.No.49/SE/Elec/18-19)  | 10.65 |
| 2 | Replacement of 4/2 feet, 40w PL/TL/BC fittings with LED fittings at SGS Arts college, old & new hostels, 2nd & 3rd NC, Thondamanadu TTD KM & TTD I/c, Renigunta in ESD-West, Tpt<br>(D.R.No. 120/DE-II/ Tpt/18-19) | 7.60  |

**Total                      33.89**

*K. Venkataramana*  
K. VENKATARAMANA  
Asst. Executive Engineer (Elec.)  
T.T. Devasthanams, Tirupati

*P. G. Reddy*  
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# TIRUMALA TIRUPATI DEVASTHANAMS

## S.G.S. ARTS COLLEGE

Tiruchanur Road, TIRUPATI-517501

LED Replaced in the year 2019

4' Feet LED Fittings - 675 Nos.

5522100033542

S.G.S. Arts College

Month	2015-16			2016-17			2017-18			2018-19			2019-20			2020-21		
	Units	Tariff	Amount	Units	Tariff	Amount	Units	Tariff	Amount	Units	Tariff	Amount	Units	Tariff	Amount	Units	Tariff	Amount
April	11507	6.86	78938.02	9801	7.00	68607	14583	7.28	106164.24	13248	7.28	96445.44	7310	7.25	52997.5	12671	7.00	88697
May	6225	6.86	42703.5	8124	7.00	56868	11709	7.28	85241.52	13265	7.28	96569.2	4973	7.25	36054.25	11070	7.00	77490
June	5825	6.86	39959.5	5996	7.00	41972	9998	7.28	72785.44	13042	7.28	94945.76	7785	7.25	56441.25	3097	7.00	21679
July	7627	6.86	52321.22	5943	7.00	41601	7882	7.28	57380.96	10506	7.28	76483.68	10891	7.25	78959.75	3506	7.00	24542
August	11686	6.86	80165.96	9578	7.00	67046	12429	7.28	90483.12	14517	7.28	105683.76	12358	7.25	89595.5	2730	7.00	19110
September	11536	6.86	79136.96	9419	7.00	65933	11098	7.28	80793.44	15122	7.28	110088.16	9952	7.25	72152	2738	7.00	19166
October	9377	6.86	64326.22	9758	7.00	68306	9532	7.28	69392.96	12608	7.28	91786.24	9916	7.25	71891	6756	7.00	47292
November	9361	6.86	64216.46	9880	7.00	69160	11908	7.28	86690.24	10022	7.28	72960.16	8143	7.25	59036.75	5442	7.00	38094
December	6707	6.86	46010.02	10428	7.00	72996	12057	7.28	87774.96	8239	7.28	59979.92	9971	7.25	72289.75	7808	7.00	54656
January	10819	6.86	74218.34	4360	7.00	30520	8384	7.28	61035.52	9229	7.28	67187.12	9849	7.25	71405.25	5272	7.00	36904
February	9192	6.86	63057.12	8425	7.00	58975	7309	7.28	53209.52	6794	7.28	49460.32	9414	7.25	68251.5	5112	7.00	35784
March	9240	6.86	63386.4	10406	7.00	72842	11941	7.28	86930.48	6853	7.28	49889.84	12671	7.25	91864.75	6541	7.00	45787
TOTAL	109102		748439.72	102118		714826	128830		937882.4	133445		971479.6	113233		820939.25	72743		509201

K. VENKATARAMANA  
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