

# Prasad V. Potluri Siddhartha Institute of Technology (Autonomous)

Kanuru, Vijayawada –520007

(Affiliated to JNTUK, Accredited by NBA, ISO9001:2015 Certified Institution)



## Environmental Consciousness and Sustainability

### 7.1.2. Facilities for alternate sources of energy and energy conservation measures

### **7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures**

The institution takes significant strides towards sustainability through its robust facilities for alternate energy sources and energy conservation initiatives.

#### **1. Solar Energy (200 kW Rooftop Installation):**

The institution harnesses the power of solar energy with a substantial 200 kW rooftop installation. This solar capacity not only serves as an alternative and renewable energy source but also underscores the institution's commitment to reducing its carbon footprint. By tapping into solar power, the institution actively contributes to clean energy generation and environmental preservation.



**Solar Plant**

#### **2. Wheeling to the Grid with APCPDCL:**

In a collaborative effort with the APCPDCL (Andhra Pradesh Central Power Distribution Company Limited), the institution participates in wheeling excess energy back to the grid. This initiative not only allows the institution to share surplus electricity but also supports the broader grid's stability and efficiency. The partnership with APCPDCL exemplifies the institution's commitment to fostering sustainable practices at a community level.

<b>Prasad V. Potluri Siddhartha Institute of Technology:: Vijayawada</b>							
<b>200 kW Grid Tied Solar Power Plant Generation Details</b>							
<b>Solar Energy generation and consumption details</b>							
	<b>Bill Month</b>	<b>Units Generated from Solar</b>	<b>Units Consumed on Main</b>	<b>Units Pumped to Grid</b>	<b>Units billed from APSPCDC L</b>	<b>Energy Bill ( Rs )</b>	<b>Wheeling to Grid ( Excess Solar Units Deposited )</b>
<b>2021</b>	<b>Jun</b>	24306	8880	15210.00	4260.00	117549.00	10590.00
	<b>Jul</b>	19477	10256	8486.00	4260.00	117529.00	2490.00
	<b>Aug</b>	19036	13270	5126.00	8144.00	147624.00	0.00
	<b>Sep</b>	20336	15422	4782.00	10640.00	180118.00	0.00
	<b>Oct</b>	20534	14774	4918.00	9856.00	173353.00	0.00
	<b>Nov</b>	21976	16434	7324.00	9110.00	155198.00	0.00
	<b>Dec</b>	17346	19804	3324.00	16480.00	220251.00	0.00
<b>2022</b>	<b>Jan</b>	23500	17664	5574.00	12090.00	178250.00	0.00
	<b>Feb</b>	20661	13512	6424.00	7088.00	139584.00	0.00
	<b>Mar</b>	25289	11144	8042.00	4260.00	117525.00	1158.00
	<b>Apr</b>	25823	29494	3506.00	25988.00	372586.00	0.00
	<b>May</b>	25167	26042	4824.00	21218.00	284373.00	0.00
	<b>Jun</b>	22964.7	34774	3504.00	31270.00	419211.00	0.00
	<b>Jul</b>	19130.2	26632	2384.00	24248.00	303310.00	0.00
	<b>Aug</b>	16116.4	24754	1806.00	22948.00	315565.00	0.00
	<b>Sep</b>	20618	22328	3300.00	19028.00	264835.00	0.00
	<b>Oct</b>	17908.9	33938	2026.00	31912.00	431214.00	0.00
	<b>Nov</b>	20109.1	22990	5500.00	17490.00	284922.00	0.00
	<b>Dec</b>	19025.1	27524	2674.00	24850.00	339330.00	0.00
<b>2023</b>	<b>Jan</b>	19774.8	20102	2820.00	17282.00	256968.00	0.00
	<b>Feb</b>	23281.9	14534	7156.00	7378.00	160192.00	0.00
	<b>Mar</b>	23852.8	16284	4230.00	12054.00	200379.00	0.00
	<b>Apr</b>	24013.9	26900	3292.00	27798.00	339599.00	0.00
	<b>May</b>	24103.8	29898	4836.00	29898.00	432709.00	0.00
	<b>Jun</b>	22112	27650	2896.00	24754.00	414979.00	0.00
	<b>Jul</b>	21598.4	24344	2904.00	21440.0	297811.00	0.00
	<b>Aug</b>	13175.6	28514	1814.00	26700.00	371079.00	0.00
	<b>Sep</b>	21138.2	38590	2484.00	37550.00	468519.00	0.00
	<b>Oct</b>	18623.2	34980	3520.00	31460.00	477275.00	0.00
	<b>Nov</b>	24365	28548	6526.00	22310.00	325528.00	0.00
<b>Total</b>		<b>635363</b>	<b>679980</b>	<b>141212</b>	<b>563764</b>	<b>8307365</b>	<b>14238</b>

### **3. Sensor-Based Energy Conservation: Classroom Automation:**

The institution embraces cutting-edge technology for energy conservation through classroom automation. Sensor-based systems detect occupancy and ambient light levels enabling intelligent control of lighting. This automated approach ensures that energy is used efficiently, responding dynamically to the real-time needs of each classroom. This not only optimizes energy consumption but also enhances the overall learning environment.

### **4. Use of LED Bulbs, BLDC Fans, and Power-Efficient Equipment:**

The institution prioritizes energy-efficient lighting and equipment by adopting LED bulbs, BLDC (Brushless Direct Current) fans, and power-efficient devices. LED bulbs consume less electricity, providing cost savings and longevity. BLDC fans are known for their energy efficiency, reducing power consumption compared to traditional fans. The deployment of power-efficient equipment aligns with the institution's commitment to responsible energy use, contributing to both economic and environmental sustainability.