

## Workshop on Renewable Energy Sources

### PROGRAMME SCHEDULE

Date: 21.12.2004

Venue: Kesosram Rayon  
P.O. Nayasarai,  
Dist. Hooghly  
West Bengal  
Pin – 712 513

1. 10.10 a.m. to 12.30 p.m : Plant visit, by Guest Lecturer.
2. 1.30 p.m to 1.45 p.m : Inaugural speech by Mr. S. C. Tripathy.
3. 1.45 p.m. to 2.45 p.m : Utilisation of Solar Energy – by Mr. Muralidhar Pilai – Emmvee Solar.
4. 2.45 p.m to 3.00 p.m : Tea & Snacks.
5. 3.00 p.m to 4.30 p.m : How to save Electrical Energy – by Mr. Dhruv Agiwal.
6. 4.30 p.m. : Vote of Thanks.

## **A Brief Report on “Workshop on Renewable Energy Source” at Kesoram Rayon Factory, P.O. Nayasarai, Hooghly (W. B.)**

Date: 21.12.2004

Venue: Kesoram Rayon  
Conference Hall

### **1. Workshop Conducted By:**

- Mr. Muralidhar Pillai (A.G.M., Design & Development) – Emmvee Solar
- Mr. Dhruv Agiwal – GP Sales (Solarizer)

### **2. Members Present:**

- Mr. S. C. Tripathy
- Mr. S. S. Singhania
- Mr. C. R. Das
- Mr. A. K. Khannah
- Mr. T. K. Sinha Roy
- Mr. Ashok Kr. Singh
- Mr. B. Sengupta
- Mr. Swapan Kr. Das
- Mr. Alope Tewari
- Mr. D. Seth
- Mr. M. Sinha
- Mr. A. Chakraborty
- Mr. Abhay Kr. Singh
- Mr. N. Bhattacharya
- Mr. Sunil Kr. Das
- Mr. G. Das
- Mr. A. Sharma
- Mr. B. B. Sar
- Mr. M. Jain
- Mr. S. Biswas
- Mr. T. Chatterjee

## Inaugural Speech

Mr. S. C. Tripathy – Vice President, Kesoram Rayon, narrated in brief the necessity of renewal energy source. Cumulative rise of energy demand and scarcity of energy resources forced us to think of renewable energy. Following figures indicate how we are running with energy crisis.

### Global Scenario

Coal reserve	:	984453 million tons, lasts for 200 years.
Oil reserve	:	1047 billion barrels, lasts for 45 years.
Gas reserve	:	156 trillion m <sup>3</sup> , lasts for 65 years.

### Indian Scenario

Coal reserve	:	84396 million tons lasts for 204 years.
Oil reserve	:	5.4 billion barrels, daily production : 7,93,000 barrels, consumption : 70% higher than production, oil import : 1.2 million barrels per day, annual oil import bill is Rs. 80,000 crores.
Gas	:	Per day gas consumption : 96 million m <sup>3</sup> , whereas availability is 67 million m <sup>3</sup> .

It is therefore high time for us to go for renewable energy. Our honourable guests have enormous experience in utilization of solar energy in domestic as well as industrial level. We are very much eager to know how solar energy can be utilised.

**Mr. Muralidhar Pillai of Emmvee Solar** presented a very interesting scheme, how solar energy can be utilised.

Solar energy can be utilised in two ways –

1. **Generating power from solar energy**
2. **Generating heat from solar energy**

#### 1. **Generation of Power**

Initially photo voltaic cells are used for individual street lights only. It was specially used in remote places where electricity was not easily available such as hill top. Desert, highways, etc. It was costly enough. Now, solar power pack has developed in different module ranges from 150 VA to 1000 VA. With combination of this power pack, existing electrical system can be charged with auto change – over facility. This power pack can satisfactorily meet electricity demand of any area even a township. Solar cells and batteries can be installed in

a remote place. Thus meets the electricity demand without consuming any fuel, hence, pollution free also.

## **2. Generation of Heat Energy**

Initially solar heating plates were used to replace geyser only. Now, solar plates are developed in such fashion that it can replace use of steam in factory. In your Aftertreatment Plant, 15 to 20 tons steam per day is used just to generate hot water for cake washing which can easily be done by installing solar heating plate at Rayon Building roof top.

Mr. Pillai specifically shown the feasibility of use of solar heater in our process heating. As a result, use of coal in Boiler can be reduced drastically.

**Mr. Dhruv Agiwal** next showed us different energy efficient products which can be extensively used in our factory. As a result, power bill can be drastically reduced.

### **I. Welding Set Energy Saver**

Extensive welding takes place in our factory, average 2000 KWH power consumed per day towards welding and 30% of which can be saved.

### **II. Air Conditioner Energy Saver**

In hot humid day of summer about 1000 KWH power is consumed in our factory. By use of such type of equipment, about 20% power can be saved.

Apart from above, lots of the equipment had been demonstrated like energy saver for mix load, conquest AC energy saver, water cooler energy saver, Eco – AC energy saver etc.

## **Vote of Thanks**

In conclusion, our Energy Manager, Mr. B. Sengupta said, such conference definitely an eye opener to us. The knowledge imparted by our honourable guests – Mr. Pillai, Mr. Agiwal and Mr. Tripathy should not be confined in this hall. It is to be practiced. We specially convey our thanks to our guests and seniors for such valued conference.