

Proceeding of the Public Hearing conducted on 04.02.2009 for grant of environmental clearance to M/s Green Planet Energy Pvt. Ltd. for setting up of 10 MW capacity Bio-mass based power plant at Village Bir Pind, Teh. Nakodar, Distt. Jalandhar (Punjab).

The following were present to supervise the proceedings:-

1. Sh. Pritam Singh, PCS
Sub Divisional Magistrate,
Nakodar, Distt. Jalandhar
2. Sh. Sukhwinder Singh,
District Manager,
Punjab Energy Development Agency,
Jalandhar.
3. Er. Harbir Singh,
Environmental Engineer,
Punjab Pollution Control Board,
Regional Office, Jalandhar.
4. Er. Rajiv Garg,
Environmental Engineer,
Punjab Pollution Control Board,
Head office, Patiala

Sh. Narinder Singh Thethi, Project Director, M/s Green Planet Energy Pvt. Ltd. welcome the panel members and people from adjoining Towns/Villages who came for the public hearing of 10 MW capacity power plant proposed to be established by M/s Green Planet Energy Pvt. Ltd. at Village Bir Pind, Teh. Nakodar, Distt. Jalandhar. Thereafter, Sh. Rajiv Garg, Environmental Engineer, Punjab Pollution Control Board apprised the public about the requirement of conducting the public hearing before grant of environmental clearance as per the provisions of EIA notification no. 1533 (E) dated 14.09.2006 issued by the Ministry of Environment and Forests, Govt. of India, New Delhi. Then, he requested the representative of the industry to elaborate the main features of the project and the EIA study report.

The Project Director of the company brought out the details of the project before the public as under:-

REQUIREMENT OF THE PROJECT

- The power plant project will be set up in an area of 30 acres.
- The industry will provide 30 TPH capacity boiler using agro waste as fuel.
- The major fuel/raw material required for the proposed power plant is paddy straw, cotton / mustard stalks, sugar cane trash, rice husk, cattle dung, vegetable and fruit mandi waste etc. Total annual consumption of bio-mass for the project will be approx. 1,50,000/- MT, which is available in plenty in the nearby area.
- The total water requirement of the project is estimated to be 1142 KL/day, which will be drawn from Bore wells for which the company has already obtained approval from Central Ground Water Authority.

TECHNOLOGY OF POWER GENERATION

- **Rankine Cycle**:- Steam will be raised by burning agro-waste in the boiler which will be used to drive the turbo-generator to produce electricity. The flue gases will be passed through ESP to remove the ash and vented through a 50m tall chimney.
- **Otto Cycle**:- Cow dung and bio-mass will be digested in a digester to produce bio-gas, which will be used to drive a gas engine to generate electricity. The digester waste will be used as organic manure for agriculture.

METHODOLOGY FOR PREPARATION OF EIA STUDY:-

- A map of the area around the proposed project for 10 km radius was prepared and the location of various towns, villages and other important places was marked on the same.
- The prospective problems likely to be caused due to installation of the project were identified.
- Ambient air quality monitoring of the impact area was carried out at different locations to adjudge the level of air quality of the area and the likely impact from the project.
- Water samples and soil samples were also collected from various points in the area for analysis.
- Impact assessment were carried out indicating various sources of air pollution, water pollution, noise pollution etc. likely to be caused by the proposed project and environmental management plan has been prepared accordingly.

ENVIRONMENTAL IMPACTS AND MANGEMENT PLAN:-

AIR ENVIRONMENT

The emissions of concern from the power plant are particulate matter (SPM), SO₂ and insignificant NO_x. The industry has proposed to provide Electro-Static Precipitator as air pollution control device to bring down the particulate matter level in the flue gases less than 100 mg/Nm³, which will be below the statutory norms for emission discharge. The industry has proposed adequate stack height of 50 metres for proper dispersion of flue gases.

NOISE ENVIRONMENT

The major noise generating source is turbine-generator. The steam turbine would be housed in a closed building, which considerably reduces the noise levels.

The green belt provided along the periphery of the industry will act as noise barrier.

The ambient noise level at the boundary wall of the proposed plant will be well within the National Ambient Noise Standards.

WATER ENVIRONMENT

The total water requirement of 1142 KL/day is estimated which will be met from own bore wells. This raw water is used as a make-up of the losses in the boiler blow down, cooling tower evaporation, service water etc. The wastewater will be reused in various processes after treatment and the surplus treated wastewater will be used for irrigation/plantation purpose.

SOLID WASTE MANAGEMENT

The fly ash to be produced from the boiler furnace will be mixed with digester residue to make organic manure, which will be sold to the farmers on reasonable rates.

SOCIO-ECONOMIC BENEFITS

- The harm caused to the health of residents due to the air pollution created by the uncontrolled burning of paddy /wheat stubbles by the farmers in the fields will be avoided.
- The damage caused to the fertility of soil due to the uncontrolled burning of paddy/wheat stubbles in the fields will be avoided.
- Electricity will be generated by burning agro-waste in the boiler without doing any harm to the environment. The generation of electricity will help the state to overcome electricity shortage.
- The remaining part of paddy /wheat straw post harvest combine operation will be cut and collected with reapers. The fields will be cleared in minimum possible time for sowing of next crop.
- Purchase of agro-waste/bio-mass from the farmers will add to their income.
- Establishment of project in the area will generate direct/indirect employment avenues in the villages surrounding the project.
- Good quality organic manure will be prepared in the plant and given to the farmers. It will increase soil fertility/agriculture produce in the area and reduce the consumption of chemical fertilizers.
- Dense forestation around the project will improve the environment in the villages surrounding the project.
- Generation of electricity in the rural area will improve the quality (voltage level) of electricity in the surrounding villages.
- The agriculture machines such as tractors and trolleys of the farmers when lying idle will be hired by the company, which will add to the income of the farmers.

Sh. Sukhwinder Singh, District Manager, Punjab Energy Development Agency, Jalandhar apprised the public about the policies of PEDDA to encourage the use of non-conventional sources of energy. He informed that as per study conducted by PEDDA sufficient agro waste is available in the state to produce electricity to the tune of 1000 MW and the PEDDA has sanctioned 14 Bio-mass based power projects to M/s Green Planet Energy Pvt. Ltd. at various places in the State with total production capacity of 147 MW.

Thereafter, Er. Rajiv Garg, Environmental Engineer, requested the public present in the hearing to give their comments/views / suggestions/objections on the proposed project one by one:-

Following are the queries/views/suggestions/objections of the people and replies given by the representative of the company:-

S. N	Name of the Person	Question/query/statements of the person	Reply/ clarification given by Mr Thethi, Project Director of the company.
1	S. Kulbir Singh, Member Panchayat. Village Chukmuglani, Teh. Nakodar, Distt. Jalandhar	<p>1. Whether any other plant like this is working at some other place.</p> <p>2. If the existing chimney will be damaged with time, whether the new chimney to be installed will fulfill the norms of the emissions as prescribed by the competent authority?</p>	<p>A similar plant of 4.5 MW installed by this company is functioning in Massoore (Karnataka), which is awarded Gold Carbon Credit award by UNO. Due to this experience the Punjab Govt. has given the projects to the company in the State.</p> <p>The company will provide a 50 metres height concrete chimney. The emissions from this chimney will be less than the limits prescribed by Punjab Pollution Control Board. In future if this chimney will require replacement, the new chimney will be provided as per the standards of Punjab Pollution Control Board applicable at that time.</p>
2	Dr. Sampooran Singh, village Chanian, Teh. Nakodar, Distt. Jalandhar	<p>Whether this type of plant has been established in Punjab, which can be seen by us.</p> <p>If the paddy/wheat stubble and other agricultural waste will be used in this plant then more such projects should be provided. This will solve the problem of electricity and the degradation of environment due to burning of agricultural waste will also be avoided.</p>	<p>One such project named as Malwa Power plant has been established near Muktsar by a private party. Earlier the PSEB also established a similar project at Jalkheri but the same is not working properly due to some reasons. Our company will install a better plant.</p> <p>As per study conducted by PEDDA sufficient Bio-mass is available in the state to generate 1000 MW electricity and our company has been permitted to install 14 such plants in the State with total capacity of 147 MW.</p>

3	Smt. Inderjit Kaur Mann, Sarpanch Village Bir Pind, Teh. Nakodar, Distt. Jalandhar.	The land for this plant is given by village Bir Pind after consultation with all the senior people of the village. This project will improve the quality of electricity in the area and it will be very useful for the nearby farmers. The land where this project is being established is non-fertile and earlier there was negligible income from this land. But now this land has been given to the company on lease @ Rs.22,000/- per acres per year, which will be a source of regular income for the village.	No, reply required.
4	Sh. Surinder Singh, Ex-Sarpanch, Village Husainabad, Teh. Nakodar, Distt. Jalandhar.	This plant will use the agricultural waste of the farmers and will reduce the pollution problem. He requested that as there will be increase in traffic due to this plant, therefore proper phatak shall be provided on the railway crossing located nearby.	The representative of the company requested the SDM to do the needful in this regard.

Sh. Pritam Singh, Sub Divisional Magistrate, Nakodar, Distt. Jalandhar shared his views with the people regarding benefits of the project and about the indiscriminate burning of agricultural residue/stubble in the fields.

Sh. Rajiv Garg, Environmental Engineer, Punjab Pollution Control Board asked the public if any one else want to ask any question but no one came forward. Thereafter, he requested the public present in the hearing to confirm by raising their hands as to whether they approve the establishment of proposed power plant project at this site. In response to this, more than 90% of the people present in the public hearing raised their hands and gave their consent for the establishment of the project.

The panel members observed that the participants of the public hearing have no objection from environmental angle for setting up of the project at the proposed site provided the company will comply with the provisions of the law for control of environmental pollution.

The hearing ended with vote of thanks to the panel members and all the public present in the hearing.

**Sh. Pritam Singh, PCS
Sub Divisional Magistrate,
Nakodar, Distt. Jalandhar.**