Proceeding of the Public Hearing conducted on 20.01.09 for grant of environmental clearance to M/s Green Planet Energy Private Limited for setting up of 9 MW capacity Bio-mass based power plant at Village Deepsingh Wala, Tehsil & District Faridkot.

The following were present to supervise the proceedings:-

1. Sh. Harcharan Singh Sandhu,
   Sub Divisional Magistrate,
   Faridkot.
2. Sh. Amarjeet Singh Aulakh,
   Chairman, Market Committee,
   Sadiq, Distt. Faridkot.
3. Sh. Randhir Singh, Project Manager
   Punjab Energy Development Agency,
   Chandigarh
4. Sh. Baljinder Singh,
   Block Level Extension Officer,
   District Industries Centre,
   Faridkot.
5. Er. Rajiv Garg,
   Environmental Engineer,
   Punjab Pollution Control Board,
   Head Office, Patiala.
6. Er. Jagdish Lal,
   Assistant Environmental Engineer,
   Punjab Pollution Control Board,
   Regional Office, Faridkot.

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 9 MW capacity power plant proposed to be established by M/s Green Planet Energy Pvt. Ltd. at Village Deepsingh Wala, Teh. & Distt. Faridkot. 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. 1,40,000/- MT, which is available in plenty in the nearby area.
- The total water requirement of the project is estimated to be 1072 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), SO_2 and insignificant NOx. 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/Nm^3, 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 1072 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. Randhir Singh, Project Manager, Punjab Energy Development Agency, Chandigarh apprised the public about the policies of PEDA to encourage the use of non-conventional sources of energy. He informed that as per study conducted by PEDA sufficient agro waste is available in the state to produce electricity to the tune of 1000 MW and the PEDA 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 given 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.	Sh. Jagsir Singh Mohi, Village Deep Singh Wala, Distt. Faridkot.	He shared his views regarding importance of tree plantation and other pollution problems with the public. He also presented a song regarding pollution problem of Mother Earth titled as "Dharti Maa De Pukar'.	No reply required.
2.	Sh. Nar Singh, Vill. Kanian wali, Distt. Faridkot.	Whether there will be any foul smell and wastewater discharge from the process/industry?	There will be no foul smell generated from the industry. APCD will be provided for control of air pollution. No wastewater will be discharged outside the premises of the industry and all the wastewater will be re-used after proper treatment.
3.	Sh. Kulwant Singh, Ex-Lambardar Village Deep Singh Wala, Distt. Faridkot.	The project will be very useful for the nearby residents. The parali (Wheat/paddy stuble) of the farmer, which is otherwise burnt will be useful in this project?	No reply required
4.	Sh. Sham Lal, Sarpanch, Deep Singh Wala, Distt. Faridkot.	Whether any ash will be discharged from the chimney causing damage to the nearby area?	The company will provide ESP to control the pollution from the emissions and the flue gases will be

			discharged through a chimney of 50 metres height. The emissions will be within the permissible limit prescribed by the Punjab Pollution Control Board.
5.	Sh. Gurwinder Singh, Sarpanch, Vill. Chak Jumit Singh Wala, Distt. Faridkot.	Whether the problem of electric cuts will be solved with this project?	The 9 MW power generated from this plant will be sold to the PSEB authorities and the company has no authority to supply the electricity to the people. However, the quality (Voltage level) of the power will be improved in the nearby area.

Sh. Harcharan Singh Sandhu, Sub Divisional Magistrate, Faridkot shared is views with the people regarding benefits of the project and about some social problems of the society.

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. Harcharan Singh Sandhu,
Sub Divisional Magistrate,
Faridkot.