

## ANNEXURE 21.2(A)

### SALIENT FEATURES OF INCENTIVES GIVEN BY MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES

#### FUEL/ENERGY RECOVERY FROM URBAN/MUNICIPAL AND INDUSTRIAL WASTE

##### 1.0 DETAILS OF THE SCHEME

*The details of the scheme is described in brief as under:*

##### 1.1 ELIGIBLE TECHNOLOGY

- Biomethanation	- Gasification/Pyrolysis
- Pelletisation	- Incineration
- Sanitary Landfilling with gas/energy recovery	- Mix of above technologies

##### 1.2 CAPACITY

Projects with following minimum capacities shall qualify for consideration

Waste to energy (Solid fuel)	:	15 TPD
Waste to energy (Gaseous fuel)	:	50m/hr
Waste to energy (Electricity)	:	100 KW
Waste to energy (Combined form)	:	100 Kwe

##### 1.3 ELIGIBLE AGENCIES

Following agencies are eligible as promoter for fuel/energy recovery projects

- Private and Public Sector	- ULBs/Municipal Bodies
- Entrepreneurs/Investors capable of Making promoters equity	- Registered companies/Industries etc. Govt. Department/Undertakings
- Community based organisation/NGOs	-

Scheme is open for operation on **BOO, BOOT, BOT** and **BOLT** mechanism.

##### 1.4 INCENTIVES AVAILABLE FROM MNES

For the purpose of development, Fuel/Energy recovery projects have been divided in the following categories.

**Commercial Projects** : Schemes based on proven/established technology. Two types of schemes are eligible under this categories of schemes:

- a) Power generation projects
- b) Waste to fuel projects

**Demonstration Projects** : Projects/Schemes based on emerging technology

**Energy Recovery at STPs** : For mounting of energy recovery system on STPs.

### 1.5 FINANCIAL INCENTIVES

Commercial Schemes	Demonstration Project	Energy Recovery at STPs
<p><b>Investment Subsidy:</b></p> <p><b>A) Power Generation Projects :</b> Equivalent to 50% of equity stake of the promoters in the project limited to Rs.1 Crore/M We.</p> <p><b>B) Waste to fuel Projects :</b> Equivalent to 50% of equity stake of the promoters in the project limited to Rs.50 lakhs/Mwe where wastes are converted to biogas, pellets etc.</p> <p>Investment Subsidy is payable through lead FIs in the instalment linked with the progress.</p> <p>Interest Subsidy : Equivalent to 10% of the loan amount subject to maximum of Rs.1 crore/Mwe. Interest Subsidy is payable through lead Fis. The capitalisation of interest subsidy will be worked out with an annual discount rate of 12%. Interest subsidy is payable through lead FIs in the instalments linked with the progress.</p>	<p><b>Investment Subsidy :</b> Equivalent to 50% of the project cost limited to Rs.3 crore/Mwe. Investment Subsidy is payable through lead Fis in the instalments linked with the progress.</p>	<p><b>Investment Subsidy :</b> Equivalent to 50% of the incremental capital cost of biogas generation equipment for mounting energy recovery system on existing Plant.</p>

## **SALE OF POWER**

Following options are available to promoters of fuel/energy recovery projects for sale of electricity:

- Wheeling, banking of power using SEBs grid for third party sale is permitted.
- Alternatively, SEBs will purchase electricity at a minimum recommended rate.

*Note : The guidelines for National Programme for Energy Recovery from Urban/Municipal/Industrial waste may be referred for further details.*

## **BAGASSE BASED CO-GENERATION**

### **2.0 FINANCIAL INCENTIVES**

#### **A. Demonstration Scheme :**

##### **Co-operative/Public/Joint Sector Sugar Mill**

**Govt. Grant :** Equivalent to 50% of total project cost or up to Rs.2 crores/MW of surplus power whichever is lower.

- Govt. grant will be utilised by the FIs to provide the existing co-operative/public sector sugar mills a capital subsidy of Rs.70 lakhs/MW surplus power, subject to a maximum of Rs.6 crores per project and a long term soft loan of Rs.1.30 crores/MW of surplus power at an interest rate of 9% beside their own loan at commercial terms.
- For new sugar mills of both the categories subsidies will be half of the level mentioned above.
- State Govt. will also have to provide a fresh equity of Rs.25 lakhs/Mwe of surplus power to avail benefit of Central Govt. incentives.
- Independent Power Producers(IPP) will also be eligible for financial incentives. However, in such cases MNES grants will be on par with private sector projects.

#### **B. Interest Subsidy Scheme**

##### **1. Projects generating 4MW or more Surplus power involving change of boiler & turbine**

**Interest Subsidy :** Equivalent to Rs.35 lakhs/MW to the promoters payable through FIs in the form of subsidized loan provided loan component of the project is at least 60% of the project cost and project cost of Rs. 4 crores/MW.

##### **2. Projects using their existing facilities with minor modification for generating 1-4 MW of surplus power**

**Interest Subsidy :** Equivalent to Rs.15 lakhs/MW to the promoters payable through FIs in form of subsidized loan provided loan component of the project is at least 60% of the project cost and project cost of Rs.1.5 crores/MW.

## SALE OF POWER

Following options are available to promoters of Bagasse based co-generation projects for sale of electricity:

- Wheeling, banking of power using SEBs grid for third party sale is permitted.
- Alternatively, SEBs will purchase electricity at a minimum recommended rate

*Note : The guidelines for “National Programme for Bagasse based Co-generation Power projects” may be referred for further details.*

## ANNEXURE – 21.2(B)

### SALIENT FEATURES OF MINISTRY OF AGRICULTURE GUIDELINES FOR RECOVERY OF COMPOST FROM URBAN/MUNICIPAL WASTE

Type of Scheme	Centrally Sponsored
Extent of Grant	1/3 <sup>rd</sup> of Project Cost subject to a maximum of Rs.50 lakhs per project. Grant to be provided for building, plant & machinery only. Consultancy fee not included in grant.
Capacity of Plants to be taken up	50-100 TPD
Nos. of Projects to be taken up	36 Nos.
Total Central Assistance proposed during IXth Plan period	18 crores
Procedure for release of Central grant	Through State Govts.
Availability of land	State Govt./Civic body to make available land Agency managing/running to bear other costs such as staff salary etc.
Operation and Maintenance of Compost Plants	State Govt. has complete flexibility to obtain viable technology from any source. State Govt. may involve Local Bodies/Agriculture deptts./Agro industry/Private entrepreneurs/NGOs in managing/running plant
Evaluation of proposal	Expert Committee with representatives from ICAR/Engg. Institutions/Concerned Ministries

*Note : This is an ongoing scheme since VIIIth Plan. Similar scheme proposed for the IXth Plan is under consideration by the Central Govt.*

## **ANNEXURE – 21.2( C )**

### **HUDCO's FINANCING**

The waste management components which could be considered for HUDCO financing are:-

- Overall streamlined management of **municipal waste (solid and liquid)** comprising storage, collection, treatment/resource recovery and ultimate disposal components
- **Hazardous waste** like hospital waste, industrial waste generated within municipal/urban/semi-urban areas.
- Resource Recovery e.g. Compost, fuel, energy etc.
- Recycling which forms part of an integrated waste management project

### **ELIGIBLE AGENCIES**

- Urban Local Bodies	- Development Authorities
- Private Companies (registered)	- Health Care Establishments in the public/private sector
- Non Governmental Organizations (registered)	- Co-operative/Joint sector/Public sector companies

### **FINANCING PATTERN**

HUDCO's financing pattern for waste management schemes is given below:

#### **INTEREST RATE \***

**Govt. guarantee Schemes** 14.0%/14.5% for 10/15 years

**Non-Govt. Guarantee Schemes** 14.5%/15.0% for 10/15 years

**DOCUMENTATION CHARGES** Rs/10,000 (FLAT RATE)

**FRONT END FEE** 1.25% ON LOAN AMOUNT.#

**EXTENT OF FINANCING**

**UP TO 70%**

**SECURITY (An appropriate package with one or more of the given components)**

**BANK GUARANTEE  
GOVT. GUARANTEE  
MORTGAGE  
HYPOTHECATION  
COLLATERAL SECURITY  
/ Corporate Guarantee  
/ Personal Guarantee  
/ Escrow Accounts  
/ Post dated cheques**

**NOTE :**

1. \* *The interest rate is net and is to be increased by 0.5% for gross- to be allowed as rebate for prompt payment*
2. \* *For Bagasse based Co-generation projects which are considered under Demonstration programme of Ministry of Non-Conventional Energy Sources, the interest rate may be reduced by 2% subject to approval by the MNES.*
3. # *Rebate of 0.25% if legal documentation is completed within 4 months (6 months in respect of schemes of North East Region, Andaman, Nicobar Islands & Lakshadweep.*

## **AN EXAMPLE : FINANCING HOSPITAL WASTE MANAGEMENT SCHEMES BY HUDCO**

HUDCO, under its Urban Infrastructure Financing Schemes finances hospitals and other health care establishments (Social Infrastructure category). It also finances a wide range of waste management schemes.

### **Eligible Agencies**

- ⇒ Development Authorities
- ⇒ Municipal Corporations/Councils
- ⇒ Health Care Establishments (public / private sectors)
- ⇒ Private Companies/Agencies, NGOs etc.

### **Financing Pattern**

Rate of interest : Schemes having Govt. Guarantee --14.0 / 14.5 % for 10/15 years  
(net)                      Sch. Not having Govt. Guarantee – 14.5 / 15.0 % for 10/15 years

Extent of financing : Up to 70% of the project cost

Front end fee : 1.25%,              Documentation charges : Rs. 10,000 (at a flat rate)

Security for the loan : An appropriate package with one or more of the following

#### Components

- Bank Guarantee
- Govt. Guarantee
- Mortgage
- Hypothecation
- Collateral security :
  1. Corporate Guarantee
  2. Personal Guarantee



3. Escrow Accounts
4. Post dated Cheques

### **Eligible Components**

Under this guideline only those schemes would be considered which strictly conform to / comply with the requirements of the Bio-medical Waste (Management and Handling) Rules, 1998 of the Ministry of Environment and Forests, Government of India, because of the highly infectious and hazardous nature of the waste and specialized management system required.

HUDCO gives priority to integrated hospital waste management projects for cities / towns including their suburbs so that the benefits are optimal. These may also be hospital based provided favourable / appropriate conditions are available. However, individual components of integrated hospital waste management projects may also be considered for financing on a case to case basis.

HUDCO would also prefer to have a proper waste management system incorporated at the planning stage of a hospital / any other health care establishment so that proper segregated storage area, separate waste movement corridors, collection area, treatment facility (in case treatment is planned to be done within the hospital premises) etc. can be effectively planned.

### **The waste management components which could be considered for HUDCO financing are:**

- Overall streamlined management of hospital waste (solid and liquid) comprising storage, collection, treatment and disposal components within a hospital.

- Storage bins(preferably with color coding), special boxes for storing used sharps, specialized trolleys for carrying medical waste, covered vehicles for transport of medical waste within the hospital premises, any specialized equipment necessary for safe and hygienic containment, safe sealing of packages containing hazardous material etc.
- Treatment facility such as incinerator, micro-wave equipment, autoclave etc. Essential accessories, such as boiler for autoclave may be included. The specifications have to be strictly in accordance with the rules cited above. The health care establishment has also to ensure that the use of any particular treatment option would also be according to the above rules and that any piece of equipment would not be used for treatment of a type of waste for which it is not recommended.
- Common treatment and / or disposal facility for the whole or part of a city / town. This may include the treatment plant (strictly according to the above rules), its equipment, essential accessories (e.g., boiler), infrastructure (essential for the treatment), development of secured landfill for the ultimate disposal of the treated waste, such as, ash from incinerator, treated waste from microwave / autoclave facility etc. Administrative building or any other building (except the plant) will not be financed under this scheme. Such buildings may be considered under HUDCO's Social Infrastructure of Commercial Schemes as the case may be.
- Specialized covered vehicles for transport of hazardous bio-medical waste to the common facilities / designated disposal areas (such as secured landfill meant for the specific purpose).

**The following aspects would be given special consideration:**

- Complete systematic planning of hospital waste management incorporating measures to consciously reduce waste, segregation of hazardous and non-hazardous categories of hospital waste and their storage in colour coded bags / containers, separate storage of sharps in specialized containers, proper movement routes for the waste etc.
- Beneficial environmental impact including pollution control measures
- Use of standard equipment and field tested technology
- Proper institutional arrangement, allocation of specific duties and accountability.
- Regular training of personnel at different levels (administrative, medical, para-medical, cleaning staff etc.)
- Monitoring of waste management services
- The proposed system should preferably be the best possible option for the particular situation and site condition.