

No.D.12/30/2009-SEZ
Government of India
Ministry of Commerce & Industry
Department of Commerce

Udyog Bhawan, New Delhi
Dated the 11th December, 2009

To

1. All Development Commissioners
2. DG, EPCES

Subject: Draft Guidelines for Green SEZs.

Sir/Madam

I am directed to enclose herewith draft guidelines for Green SEZs. You are requested to give wide publicity to the draft guidelines. Comments on the guidelines, if any may please be furnished to DG, EPCES ([<epcesho@hotmail.com>](mailto:epcesho@hotmail.com)) by 31.12.2009.

Yours faithfully

Sd/-

(R.K.Pandey)

Under Secretary to the Government of India

DRAFT GUIDELINES ON GREEN SEZs

SEZs are special enclaves aimed at creating world class infrastructure. Overall, all new & existing SEZs should implement green guidelines mentioned below and go for green certification.

The green guidelines and certification for SEZs is to be implemented as follows:

- Entire SEZ (covering both new & existing) by developer
- Individual buildings by owner/ developer, as applicable

Individual buildings within the SEZ can adopt suitable rating programmes based on the building types:

- Residential (Developer)
- Commercial (Developer/ Owner)
- Factory buildings (Owner)
- Existing buildings (Developer/ Owner)
- Schools (Owner)

Compliance with these guidelines would be certified by organisations like IGBC, TERI, other national & international agencies.

SEZ developers can avail technical services from consultants/ material & equipment suppliers. Information of such consultants/ suppliers can be obtained from IGBC.

(a) Optimization of Use of Energy:

- (i) All new buildings, would have to be energy efficient as per the Energy Conservation Building Code (ECBC). Process loads for industrial buildings are excluded.
 - a. Envelope, Cooling, Heating, Lighting and White goods would comply with the ECBC requirements

- b. For such of those building types (such as factories, homes, existing buildings, etc.,) not addressed by ECBC, projects would comply with requirements of appropriate IGBC rating programme or other equivalent programmes.
- (ii) In developments where the Air-conditioning requirements are equal to and above 1000 TR capacity to be catered through district heating and cooling. This is applicable to projects wherein the air-conditioning systems are installed by the SEZ owner/ developer.
- (iii) Measures to be taken for improving micro climate to avoid heat island effect. This can be achieved by providing 50% of the net roof area covered with vegetated roof or high Solar Reflective Index (SRI) material
- (iv) All existing buildings should have a plan to incorporate the above measures in the next 2-3 years (excluding the building envelope requirements)

(b) Power:

- (i) 100% of organic waste generated within SEZ should be vermi-composted OR used for in-situ power generation. Alternately, this should be appropriately sent to projects which can use them for power generation.
- (ii) Atleast 25% of the installed external lighting load should be solar powered.
- (iii) 100% of internal & external lighting fixtures should be BEE star rated, wherever applicable. The usage of incandescent lamps is not allowed.
- (iv) All common spaces, including street lights (where there is no use of light of light for reading purposes), shall use "LED";

- (v) Solar street light controllers will be used for automatic dusk to dawn operation of street lights;
- (vi) Atleast 50% of installed bill boards lighting loads, should be powered with solar power. Traffic light, blinkers, direction signage, based on LEDs should also be powered by solar.
- (vii) A minimum of 2% of total estimated energy consumption for each zone or 5 kW/ hectare, whichever is lower, must be generated through solar or other forms of renewable energy. Over a period of 10 years, the solar/ other forms of renewable energy must be extended from 2% to a minimum of 20% of total estimated energy consumption or 50 kW/ hectare (staggered in a block of 3 years), whichever is lower. SEZ projects can also enter into Power Purchase Agreements (PPAs) with renewable energy developers to meet this requirement.
 - a. Such facility in SEZ shall be set up along with boundary wall of the processing area as well as along open space/ roof top within the Zone. For this purpose, developers will have flexibility to use 10% of non-processing area for any authorised operation beyond the limits prescribed for it;
- (viii) A minimum of 50% hot water requirement (including residential, institutional and pre-heating for industrial applications) shall be met by solar water heating systems. Solar air heating and steam systems (solar concentrating systems) may also be used for meeting hot air and steam requirement for drying/cooling and other application to the extent possible;
- (ix) Can use wind mills/aero generators where wind speed is permitted to be set up to achieve the above.

(x) Can install in situ power generation facilities like bio mass/bio gas using waste generated within the site.

(c) Water Consumption:

(i) Water harvesting practices shall be used in each Zone such that atleast 30% of the rain water must be harvested in each zone depending on the aquifer characteristics.

(ii) Protect or restore the existing water bodies to promote bio-diversity;

(iii) Install centralized in-situ waste water treatment plant to treat 100% of waste water generated to tertiary standards (Central Pollution Control Board norms).

(iv) Re-use treated waste water for landscaping, flushing and air-conditioning make-up requirements within the site;

(v) Install water efficient plumbing fixtures – such as closets, faucets etc;

(vi) All the SEZs shall strive to achieve “zero process water discharge” (process water means all grey & industrial process discharge and does not include rain water)

(vii) Developer/ Co-Developer shall be responsible for providing water supply and no separate individual borings will be permitted for any use in any processing area;

(d) Waste Management:

(i) Provide common storage area for recyclable waste such as paper, glass, metal, cardboard, plastics & organic would be provided by the Developer. Also, develop local vendors to handle and divert the waste for recycling and reuse.

(ii) All industrial units shall have primary treatment facilities in accordance to local pollution control board.

- (iii) Garbage segregation will be as per Solid Waste Rules of 2000;
- (iv) Have a system in place to segregate waste during construction and subsequent reuse or recycling.

(e) Plantation:

- (i) The Developer for Zones must set up their own nurseries for plantation of saplings.
- (ii) Each allotted piece of land - residential, commercial and industrial, shall have to have plantation in its campus as per the norms fixed by the Approval Committee.

(f) Site preservation and Restoration:

- (i) Prevent construction activity pollution by controlling soil erosion and waterway sedimentation as per National Building Code (NBC) guidelines. Stack the top soil and reuse for landscaping, wherever applicable.
- (ii) Preserve or transplant existing trees, wherever appropriate.
- (iii) Atleast 50% of the open area excluding development areas like roads, pathways, etc., should be landscaped to reduce the heat island effect.
- (iv) Hardscape areas to be shaded by trees or installed with open-grid pavers.
- (v) Provide recreation facilities such as parks to enhance the quality of life of the occupants.

(g) Local Internal Transportation:

- (i) Each Zone shall have its own internal transportation facilities (atleast 25% of vehicles used) by way of electrically driven, vehicles, CNG, Bio-diesel or any other environment friendly fuels. SEZs should have 3 year plan to extend the facility to 100% of the vehicles used.
- (ii) Electric Rickshaw shall be provided in the Zone for internal transportation.
- (iii) Proximity to alternative modes of local mass transportation (rail and/ or bus). In the event of such facilities not being available, provide shuttle services to the nearest rail or bus services;
- (iv) Provide bicycle lanes to encourage occupants in cycling to and from work place;
- (v) Exclusive pedestrian lane for comfortable pedestrian street access;
- (vi) Provide high level of internal connectivity through street network;
- (vii) Projects with residential zones shall be provided with basic amenities like stationary, grocery shops, banks, ATM's, etc.,

(h) Materials:

- (i) Each building in the zone will produce a certificate that design of the building is 'Green' before the Unit Approval Committee and produce it to procure building materials for construction.

(i) Ventilation & Daylighting:

- (i) All the buildings should meet the ventilation & daylighting standards prescribed in National Building Code (NBC).

(j) IT Infrastructure:

- (i) Each Zone shall have Optical Fiber Connectivity (OFC) to provide efficient internet and broad band connectivity to the units;

(k) Certification Process:

- (i) All new buildings in the SEZ should go for certification immediately and existing buildings should be certified by 2010. The certified buildings in the SEZ should renew the certification every 3 years from the date of certification.

Projects by developers can opt for pre-certification. This is an option provided for projects aspiring to get pre-certified at the design stage.

Compliance with the above guidelines would be certified by organisations like IGBC, TERI, other national & international agencies.

- (ii) For support required on process and funding of renewable energy activities, approach MNRE. Applications shall be forwarded by the Zonal DC to Joint Secretary, Ministry of New and Renewable Energy, Govt. of India, block no. 14, CGO complex, Lodi Road, New Delhi 110003 (Tel. No. 11 24361027, fax 011 24367413) who will get them approved and communicate the same to the DC and will also disburse the fund to the developer and the unit.
