From :
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To,
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Subject: Consultation Paper on Green Telecommunications Dated 3rd Feb 2011

Sir

I am carrying out research in the area of energy conservation and opportunities of carbon trading in Indian telecom sector. To my knowledge following concerns on the subject may be considered:-

Response to Consultation Paper
On
Green Telecommunications
Consultation Paper No 3/2011

Carbon Footprint

3.1 The carbon footprint of indian telecom industry can be estimated in accordance with ISO 14065, PAS 2050 & GHG Protocol for carbon accounting. As a first step, all Telecommunication service operators should be asked to disclose their carbon emissionunder the Green House Gases (GHG) protocol of the World Resource Institutes(WRI).(http://www.ghgprotocol.org/,http://www.wristore.com, http://www.wbcsd.org) .This framework is widely used in Industrial sector for carbon emission accounting.

The second step should be verification and assurance of "carbon emission figures" by a third party i.e. an accredited Energy accounting agency under United Nations Framework Convention on Climate Change (UNFCCC) (http://unfccc.int/2860.php).

TRAI should constitute a special wing for implementation of Green Telecom policies and put all the verified carbon disclosures in the public domain.

3.2 &3.3

There is no specific data available at present regarding total energy consumption / carbon emission of Indian telecom sector. However the mobile segment alone is estimated to be responsible for 7 million tonnes carbon emission considering 2,50,000 telecom towers. This is likely to increase with 3G and 4G technology.

Carbon Credit Policy

3.4 At present renewable energy technology are being used at pilot basis by telcos. Considering the huge environmental impact of the telecom sector there is urgent need for carbon credit policy for telecom sector .The policy should be evolved and declared as soon as possible (Preferably before 30 th June 2011) as its implementation should be ensured by end of financial year 2011-12.

3.5&3.6 Policy should cover the renewable energy projects and other projects to offset the carbon of Indian telecom sector. Metric may be developed in consultation with all stake holders.

Availability of Power

3.7 According to industry sources approx. 2/3rd of total towers are in power starved areas .New expansion are also targeting rural hinterland and off grid areas.

3.8 The carbon foot print reduction by active sharing should be quantified by TRAI to encourage telecom operators for active sharing.

Domestic effort for reduction of carbon foot print

3.9&3.11 Pakistan and several other countries have made renewable energy mandatory for towers in rural areas. In India also no new tower in rural part should be allowed to be run on fossil fuel. Time frame should be fixed for conversion of existing towers.

3.10 Saving can be calculated based on power generated, cost of diesel saved and further CER generated on account of use of renewable energy sources. BSNL has reported saving of Rs. 42158/ per year with use of 3.3KWp solar system at BTS site in Laling (Maharashtra). TRAI can collect all such case studies and share on public domain.

Methods for Reducing Carbon Footprint

Metrics for certification

3.13&3.14 It may be developed by BEE, Telecom Engg Centre MOEF , in consultation with all stake holders .

3.16 Techno economic analysis based on pay back should be used along with carbon foot print reduction on life cycle basis.

Use of Renewable Energy Technologies

3.17 Various sources of renewable energy that can power the cell sites are:
a) Solar Energy: Hybrid Systems
i. Solar– DG Hybrid
ii. Solar - Wind Hybrid
b) Wind – DG Hybrid
c) Biomass Gasifier
d) Bio fuel blending with diesel
e) Fuel Cell

The need of the hour is regulatory mechanism, fiscal incentives to encourage production of renewable energy sources for powering telecom towers . Tax benefits , policies from TRAI , financial support , technological support and subsidy from MNRE can act as booster in this regard.

Waste Management

3.20The rules E waste disposal framed by MOEF should be followed for making waste management green.

3.21&3.22 International standards should be followed for reducing carbon foot print. International telecom union ITU and GSMA have been working on it.

3.23 Telecom Engg. Centre of DOT should handle testing and certification or TRAI should have its own unit for the job.

3.24 Manufacturers can help in reducing GHG by R&D in energy efficient products providing information about power consumption of their products. *(Refer:www.polisave.polito.it/greennet/docs/TLC**PowerConsumption**Ericsson.ppt)*

3.25 Rating standards should be in accordance with international norms and ISO 14065.Carbon emission may be declared either in terms of per unit of revenue earned or per subscriber.

3.26 Energy audit of all telecom installations/ telecom buildings should be made compulsory.

3.27&3.28 There should be a separate monitoring wing under TRAI for implementation of green telecom.

3.29 The report on the lines of the energy use report under energy conservation act 2001 may be used. The frequency of report should be on quarterly basis.

3.30 Subsidy from USO fund and MNRE should be extended to service providers for reducing the carbon footprint in their networks. Similarly the tax benefits should be extended to the manufacturers for reducing carbon foot print

Promoting R& D for Green Telecom

3.31 International Telecom Union ITU has been working on the subject . A study ITU-T 5 group constituted for R&D on the subject (http://www.itu.int/ITU-T/climatechange/).The GSMA (Global System for Mobile Communications Association) and the IFC (International Finance Corporation) announced their partnership in a program called "Green Power for Mobile" (in short, GPM). The objective of this program is to support investments on research and development of clean power sources for base stations and mobile phones. Telecom equipment manufacturers, infrastructure providers are working overtime on Green telecom solutions.

3.32 The need of the hour is regulatory mechanism, fiscal incentives to kick start the domestic R&D in green telecom . TRAI / USO /MNRE should sponsor researches for domestic R&D.

CSR and Community Services

3.33 TRAI should evolve a best practices document for CSR and community services. The telecom installations in off grid area should extend phone charging as well as solar lanterns charging facilities. (http://labl.teriin.org/)

The Cellular Operators Association of India (COAI) and other telecom associations should follow the example set by the GSMA (Global System for Mobile Communications Association) for clean power.

Dated 7th March 2011.