Mr. S K Gupta
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Dear Mr. Gupta

Thanks for providing this opportunity to share our views on the "Pre Consultation Paper on - Green Telecom". Enclosed are our views*

Sincerely,

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*I am grateful to my mentor, Prof Rekha Jain (Executive Chair, IIMA IDEA Telecom Centre of Excellence, www.iitcoe.in) for her support and guidance. Views here are personnel

Comments on the Pre Consultation Paper on "Green Telecom" dated 7th May 2010.

India is ranked fifth globally in terms of greenhouse gas emissions. Indian government has recently announced plan to reduce the growth of GHG by 25% by 2020 using 2005 as a baseline. The information and communication industry is responsible for 2-3% of the global carbon footprint. There is a need to further improve ICT environment performance as ICT applications have large potential to enhance performance across the economy and society (remaining 97-98%). Therefore, we welcome the initiative that regulatory body has taken to address the challenges of energy efficiency and increasing foot carbon footprint. We believe authority should seek view of all stakeholders on the following issues:

- What is the industry framework/norms for defining any equipment/services green?

- How do we define green telecom? What are the minimum criteria for a product to qualify as Green?

- How do we develop a standard process to measure net effect of various telecom products and solutions on environment?

- What metrics should be used to quantify overall environment efforts by various telecom enterprises? How do we standardize these metrics?

- How is green house gas emission levels, products energy usage, within telecom enterprises in India compared with the rest of the world? What measures can be taken to encourage telecom companies to develop greener products in India?

- What are the caps/penalties that can be imposed on energy usage and GHG emission for various equipment manufacturers and services providers in India?

- Telecom solutions can enable many industries to save energy and also reduce carbon foot print. How do we quantify enabling effect of telecom solutions on other industries? How are the same being measured in other countries (both public and private projects)

- How do we encourage sharing of active telecom infrastructure like data centre's to ensure better utilization and efficiency of the infrastructure?

- What instruments (like tax exemption) should we use to promote R&D in green technology within telecom domain?

- Given the high cost of product development in green technology, what support should we provide to telecom operators to deploy energy efficient solution in rural markets? (Given that the cost of green technology may not make viable business case for deployment in rural markets).

- Products that use alternate sources of energy (like solar) can be used to manage erratic or no electricity supply in rural India, but high initial cost and low access to

credits makes such solution unviable to deploy in rural markets, how do we manage such situation?

- What specific support, can we provide to telecom enterprise for developing environment friendly services and products during the entire product life cycle:

    - Idea generation

    - Developing prototypes

    - Proof of concept in the live environment.

    - Testing (Provide access to national and international test beds)

    - Certification as green product.

    - IPR regime

    - Deployment and commercialization

    - Disposal (As many of these equipments possess serious health risks because of range of component material that includes lead, cadmium, mercury, and arsenic)

- How do we create greater awareness in telecom enterprises and their employees on the long as well as short term benefits of green technology?

- How can we create a framework for startups to patent their product internationally (as patents need to filed in different countries)?

- How do we create a lab, which can certify products/services as green?

- How do we develop human capital that is required for creating and sustaining R&D in environment friendly product and services?