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October 19, 2010

Wendy Cleland-Hamnett
Director, Office of Pollution Prevention and Toxics
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail code: 7101M
Washington, DC 20460-0001

**Re: Comments in EPA's Role in Advancing Sustainable Products
EPA-HQ-OPPT-2010-0768**

Dear Ms. Cleland-Hamnett:

The Alliance for Telecommunications Industry Solutions (ATIS) appreciates the opportunity to offer comments in response to the above-referenced *Public Notice* seeking comment on the Environmental Protection Agency's (Agency) role in advancing sustainable products.¹ While ATIS believes that the Agency has a significant role in this area, it urges the Agency to work collaboratively with the industry and to recognize the work that has been completed and is currently underway. ATIS also believes that the Agency should support the industry by: making available its technical data, collaborating with industry groups such as ATIS, and by accrediting third party certification organizations capable of evaluating sustainability.

A. Background

ATIS is a global standards development and technical planning organization that is committed to providing leadership for, and the rapid development and promotion of, worldwide technical and operations standards for information, entertainment and communications technologies using a pragmatic, flexible and open approach. As an American National Standards Institute (ANSI) accredited standards development organization, ATIS has been serving the evolving needs of the telecommunications industry for over 25 years.

One of ATIS' key resources is its Board of Directors, which is comprised of chief technology officers and the senior-most executives from leading Information and Communications Technology (ICT) companies. This Board provides strategic guidance that allows the organization to prioritize the ICT industry's most

¹ Public Notice, 75 Fed Reg 56528 (Sept 16, 2010)

pressing, technical and operational issues, and creating interoperable, implementable end-to-end solutions and standards. These solutions support the rollout of innovative products and services into the information, entertainment and communications marketplace.

ATIS' membership is diverse, including all stakeholders from the ICT industry – wireline and wireless service providers, equipment manufacturers, competitive local exchange carriers, data local exchange carriers, providers of commercial mobile radio services, broadband providers, software developers, consumer electronics companies, digital rights management companies, and internet service providers. Nearly 600 industry subject matter experts from more than 250 ICT companies work collaboratively in ATIS' 18 open industry committees and forums.

B. The Role of the Agency

In the *Public Notice*, the Agency asks for input regarding its overall role in addressing challenges, opportunities and trends impacting the development and manufacture, designation and use of sustainable products. ATIS believes that one key role of the Agency should be to support the industry's "Green-" and sustainability-focused work programs and urges the Agency to collaborate with industry groups, such as ATIS, that are developing standards and specifications regarding environmental sustainability.

ATIS notes that a significant amount of work on environmental sustainability has already been completed or is underway with organizations. ATIS's work on "Green," for instance, began in earnest with the formation by the ATIS Board of the Exploratory Group on Green (EGG) to holistically assess environmental sustainability for the ICT sector and to set a foundation for an industry roadmap to prioritize and advance issues associated with ICT sustainability, such as energy efficiency and management. ATIS' EGG members, who included the senior executives from the leading telecommunications, information and technology firms, examined the ICT industry's existing green initiatives and potential ways the sector can further reduce its energy consumption.

The EGG released its *Report on Environmental Sustainability*,² which contains the ICT sector's definition of sustainability and examines the energy efficiency practices of the ICT sector and alternate energy sources. The report also outlined the business drivers behind the ICT sector's sustainability efforts and demonstrates that the ICT sector can be an enabler of applications and services that improve energy efficiency in other sectors, such as transportation, finance, and health care. The report included a number of considerations and recommendations to enable the ICT community to achieve greater sustainability and found that the ICT industry is well positioned to help develop and advance solutions for reducing greenhouse gases, while protecting and promoting economic opportunities.

In addition to the Board-level study, ATIS is actively working environmental issues at a technical level through its committees. Most of this work is done through the ATIS Sustainability in Telecom: Energy and Protection (STEP) Committee, which develops standards and technical

² For more information on this report and other information, please see the ATIS Green Initiative website at: www.atis.org/Green/index.asp.

reports for telecommunications equipment and environments in the areas of energy efficiency, environmental impacts, power and protection. More information pertaining to specific work projects being completed by STEP is provided below in response to specific questions asked in the *Public Notice*.

Collaboration and cooperation between the Agency and organizations such as ATIS, will allow the industry to better define both its challenges and potential solutions. ATIS encourages the participation of subject matter experts from the government within its committees and would welcome Agency participation within its STEP committee.

1. The Role of the Agency in Defining Criteria and Generating EcoLabels/Standards for More Sustainable Products

In the *Public Notice*, two different but related questions are asked pertaining to the possible role of the Agency. The first is what the Agency's role should be in defining criteria for more sustainable products. The second is what role the Agency should have in developing EcoLabels and/or standards. ATIS does not believe that there is a specific role for the Agency in either of these areas and instead urges the Agency to look to industry work in this area.

ATIS has already developed standards that permit the evaluation of energy efficiency of ICT equipment. ATIS STEP's Telecommunications Energy Efficiency (TEE) subcommittee developed the Telecommunications Energy Efficiency Ratio or TEER, as a measure of network-element efficiency and provides ICT equipment manufacturers and service providers with a methodology to calculate the TEER of an individual piece of ICT equipment or network configuration. This standard enables fair, consistent and repeatable evaluations of vendors' products and drives radio networks towards sustainable, low-cost energy efficient solutions.

TEER provides a comprehensive methodology for measuring and reporting energy consumption, and uniformly quantifies network components' ratio of "work performed" to energy consumed. The resulting efficiency standards are specific to equipment type, network location and classification. Normalizing these ratings by functionality enables "apples-to-apples" equipment comparison and results in repeatable and comparable measurements. Since the TEER's creation, the TEE subcommittee has published multiple standards determining myriad network elements' energy efficiency.

TEER standards published to date focus on:

- Base Standard/General Requirements;³
- Server Requirements;⁴
- Transport Requirements;⁵

³ ATIS-06000015.2009, Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting – Base Standard/General Requirements.

⁴ ATIS-06000015.01.2009, Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting – Server Requirements.

⁵ ATIS-06000015.02.2009, Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting – Transport Requirements.

- Router & Ethernet Switch Products Requirements;⁶
- Rectifier Requirements;⁷ and
- Facility Energy Efficiency.⁸

These standards are publically available and can be found at the ATIS Document Store at:
<http://www.atis.org/docstore/default.aspx>.

Work is underway to apply TEER to other areas of the ICT ecosystem. For instance, the subcommittee is currently completing its Methodology for Measurement and Reporting of Wireless Base Station Standard. This standard will provide a set of definitions, requirements and guidelines for calculating the appropriate radio base station metrics for wireless access network configuration products. Other future areas of consideration include:

- Power Plant Inverters, Converters, Uninterruptable Power Supplies;
- General Customer Premises Equipment;
- Gateways;
- Set Top Boxes;
- Home Routers;
- Storage Devices;
- IPTV;
- Multi-Vendor Modular Products; and
- Firewalls.

STEP is also working sustainability issues through its Network Physical Protection (NPP) subcommittee, which proposes, develops and recommends standards and technical reports relating to the physical protection and physical design of telecommunications network equipment and the facilities in which they are housed. One of NPP's work products addresses the Restriction of Hazardous Substances (RoHS), including a RoHS-compliant standard for structural metals, bus bars and fasteners.⁹ The standard provides physical technical requirements for telecommunications equipment systems and assemblies intended for installation in network equipment buildings and electronic equipment enclosures, including the design and construction of mechanical hardware, cable assemblies and printed wiring boards. The standard also addresses material and finish specifications that are affected by eco-environmental legislation, specifically the European Union RoHS Directive (2002/95/EC), which restricts the use of certain hazardous substances in electrical and electronic equipment.

⁶ ATIS-06000015.03.2009, Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting – Router & Ethernet Switch Products Requirements.

⁷ ATIS-06000015.04.2009, Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting – Rectifier Requirements.

⁸ ATIS-06000015.05.2009, Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting -- Facility Energy Efficiency.

⁹ ATIS- 0600009.2007, RoHS-Compliant Plating Standard for Structural Metal, Bus Bars and Fasteners.

Other issues that the STEP NPP has completed and/or is currently addressing include:

- Accelerated Stress Testing for Pb-Free Assemblies in Telecommunications Network Equipment. This specification defines accelerated stress testing for products with lead-free solder and includes a rapid test that is complementary to the longer-duration acceptance criteria proposed for small modules and larger assemblies.¹⁰
- Test Requirements for Pb-Free Circuit Packs. This document specifies acceptance and testing requirements for lead-free circuit packs, focusing on those issues specific to lead-free assembly and the introduction of lead-free components into circuit packs.¹¹
- Heat Dissipation/Power Consumption Requirements for Network Telecommunications Equipment Utilized in Central Office and Outside Plant Environments. NPP is also working to develop a standard that will provide evaluation criteria to the industry to ensure heat dissipation/power consumption effects on network telecommunications equipment are minimized.

As noted above, there is significant industry work to develop standards that will permit the identification of sustainable products. Therefore, ATIS does not believe that the Agency should create separate criteria or establish its own labeling requirements.

2. The Role of the Agency in Developing End-of-Life Management Systems

Another question posed in the *Public Notice* is what role the Agency should have in developing end-of life management systems. Again, ATIS notes that work is being accomplished by the industry on this issue and recommends that the Agency not seek to duplicate such work. STEP has begun an evaluation of the LCA (life cycle assessment) of telecommunications equipment as a proposed new work topic to address both wireless and wireline product life cycle and its impacts on the environment and on product design and operation.

3. The Role of the Agency in Assembling Information and Databases

The *Public Notice* seeks information on the role of the Agency in assembling information and databases. ATIS believes that Agency has a significant role in this area and makes two recommendations pertaining to the assembly of information.

First, ATIS recommends that the Agency make available its technical data to the industry. ATIS recognizes that the Agency has significant technical expertise in this area and has collected significant data pertaining to sustainability. Such data would be extremely useful in assisting individual ICT companies in improving the sustainability of their products and would also be useful in helping industry organizations such as ATIS in developing technical specifications and standards.

¹⁰ ATIS-0600019.2009, Test Requirements for Pb-free Subassembly Modules.

¹¹ ATIS-0600020.2010[pre-pub], Test Requirements for Pb-Free Circuit Packs.

Second, ATIS believes that the Agency has a significant role in education of the industry and of the public. The Agency should consider collaborating with industry groups such as ATIS on educational events and tools focused on promoting industry work on sustainability.

4. The Role of the Agency in Verifying that Products Meet Standards

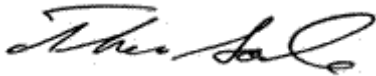
Finally, ATIS notes that the *Public Notice* seeks input pertaining to the Agency's role in verifying that products meet standards. ATIS believes that the Agency's role in this area should be limited to accrediting third party certification organizations capable of evaluating sustainability.

C. Conclusion

ATIS has taken a lead role in developing standards and specifications pertaining to sustainability, environmental stewardship and energy efficiency for the ICT industry. ATIS urges the Agency to work collaboratively with the industry by participating in industry organizations and making available its technical data to the industry. ATIS also recommends that the Agency consider collaborating with industry groups such as ATIS on educational events. Finally, ATIS recommends that the Agency have a role in accrediting third party certification organizations capable of evaluating sustainability.

If you have any questions regarding this matter, please do not hesitate to contact the undersigned.

Respectfully submitted,



Thomas Goode
General Counsel