ITU, ICTS and Climate Change

Arthur Levin, Head, Standardization Policy Division (ITU-T)

Dynamic Coalition on
Internet and Climate Change
(DCICC)
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Why It Matters

- Impact of CC is costly for many countries even though they are not a major source of emissions
  - E.g., total GHG emissions of Pacific Island countries is around **0.03%** of global total Half the population of island countries live with less than a mile of their coastlines; coral atolls no more than 3 meters above sea level
  - Typhoon/hurricane damage will increase by 10-26% for each 1 degree warming of sea
  - Deforestation (17-20% of GHG emissions)
- Global Humanitarian Forum estimates CC already killing 300,000 people annually

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Toward a New Global Framework

2007 **COP-13 in Bali launched process for negotiation of new Agreement**

- established **AWGLCA** (Ad Hoc Working Group on Long Term Cooperative Action) to develop work program

2008 **AWGLCA meetings**

- **Bangkok (31 March–4 April)**
- **Bonn (2-13 June)**
- **Accra (21-27 August)**

2009 **Meeting of COP-14**

- **Poznan, Poland (1-12 December)**

2009 **COP-15 meets and expected to conclude Agreement**

- **Bonn (29 March-8 April)**
- **Bonn (1-12 June)**
- **Three further sessions will be held prior to Copenhagen: 10-14 August in Bonn (informal meeting); 28 September-9 October in Bangkok and 2-6 November in Barcelona.**
- **Copenhagen (7-18 December)**

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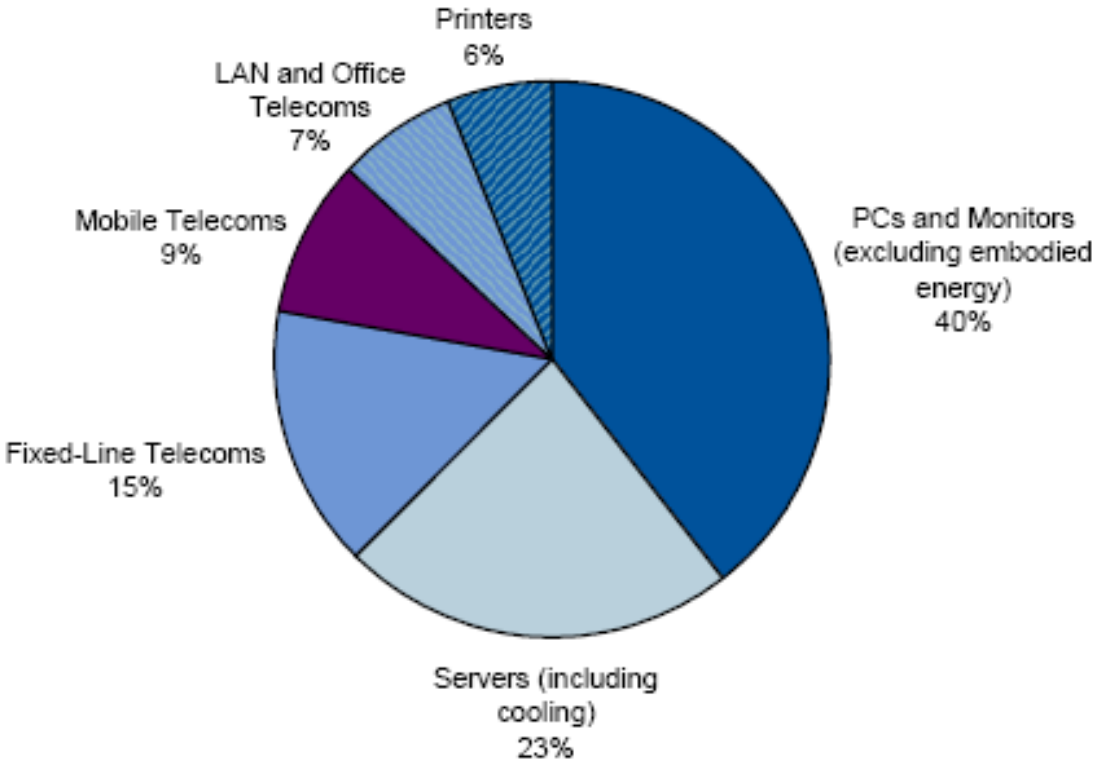
ITU Council 2009

RESOLUTION 1307

- ICTS are important to combat CC
- Endorses ITU role in developing wired and wireless standards for green ICT
- Send message to COP-15 on important role of ICTs and encourage governments to include them in new agreement

Why ICTs Matter



Source: Gartner Group

- ICTs (excluding broadcasting) contribute an estimated 2-3% of global Greenhouse Gas emissions
- Around 0.9 tonnes GtCO2e in 2007
- Telecoms contributed around one quarter of this total
- Air planes and shipping about 3% each

What Trends do ICTs Have at the Device Level?

- Market doubles every 5 years
  - E.g. Broadband expanding to more users
  - Then upgrades replace 'obsolete' devices
- New devices become a 'must have'
  - E.g. HDTV
- 4 billion+ mobile subscribers
- ICTs: 830m tons of CO2 in 2007; expected to rise to 1.4 billion tons by 2020

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Myths and Facts

- ***MYTH*** – Unplugging cell phone chargers can save the planet

- **FACT** – over one year (8670 hours) charger consumes 2.3 kWh of electricity
  - equivalent to electricity needed for ONE hot bath

- ***Myth*** – NY to LA flight emits from 1,924 to 6,732 pounds of CO_2 depending on calculation methodology used

- ***FACT*** – today's refrigerators are 70% more energy efficient than 20 years ago

- ***SO*** we need standards to measure ICT impact on climate

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Role of Standards: ITU

- Develop a methodology to measure impact of ICTs as part of national GHG reduction programs
- Identify priority sectors where ICTs can reduce emissions (e.g. smart buildings
- Grow the ICT industry in an environmentally friendly manner
- Lifecycle Analysis and Disposal of ICTs

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Deliverables: FG on ICT & CC

- Deliverable 1: Definition
  - Defines the terms needed to analyze the major relationships between ICTs and Climate Change
- Deliverable 2: Gap analysis and standards roadmap
  - Shows ongoing work (done by ITU, other standard bodies, universities, etc.) and future study issues
- Deliverable 3: Methodologies
  - Covers the assessment of ICT sector's emission over the entire life cycle of ICT devices
  - Also covers reducing other sector's emission by the use of ICT
- Deliverable 4: Direct and Indirect Impact of ITU Standards
  - Provides tools and guidelines to evaluate the reduction of emission of ICT sector and of other sector by the use of ICT

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ITU-T and Climate Change: Setting the Standard

- Mandate of SG5 was expanded at the last TSAG (28-30 April 2009)
  - New SG5 title: Environment and climate change
- SG5 created a new WP 3/5
- All SGs examining impact of recommendations on climate change
- SGs developing standards for new energy efficient technologies
  - E.g. SG-13 on Next Generation Networks
  - NGN estimated to be 40% more energy efficient

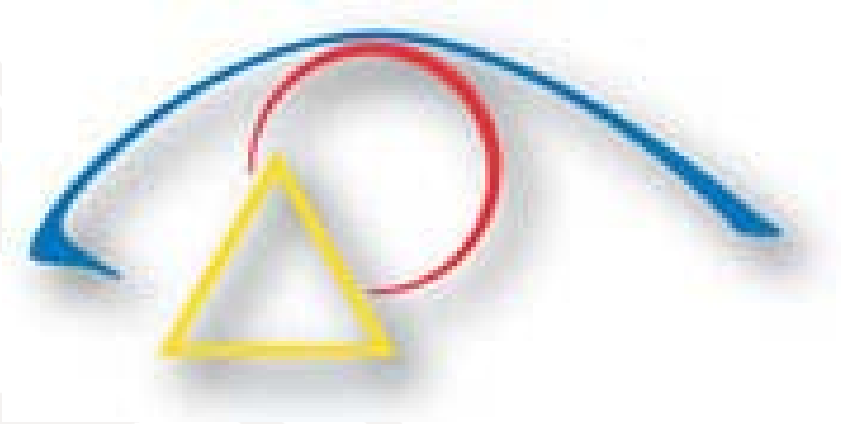
Universal Charger for Mobile

- Approval process for new Recommendation L.1000 – "Universal power adapter and charger solution for mobile terminals and other ICT devices" was initiated in October
- This Recommendation
  - Specifies general requirements
  - Introduces existing implementations (e.g., GSMA/OMTP, CCSA, TTA)
  - Current version covers charger for mobile terminals but will cover other ICT devices in future
  - Ref: TD 237rev4 of SG5
- Potential Savings of 14 million tons of GHG and energy reduction of 50% in standby mode

ITU-T: Building Knowledge on Climate Change

- ITU-T issued TECHWATCH Reports on CC and positive impact of new technologies
  - Next Generation Networks, Intelligent Transport Systems, etc.
- Organizing Major Symposia on ICT and CC
  - 2009: Quito and Seoul (virtual event)
- ITU-T pioneering energy efficient work methods
  - Paperless meetings, on-line work tools, etc.

Some Background Materials



- ITU Climate Change site
  - www.itu.int/climate
- Climate Change symposia website
  - www.itu.int/ITU-T/climatechange
- Technology Watch Briefing Reports
  - www.itu.int/ITU-T/techwatch/reports.html