

Panel:
Power Consumption Target of
Network Systems in 2030s

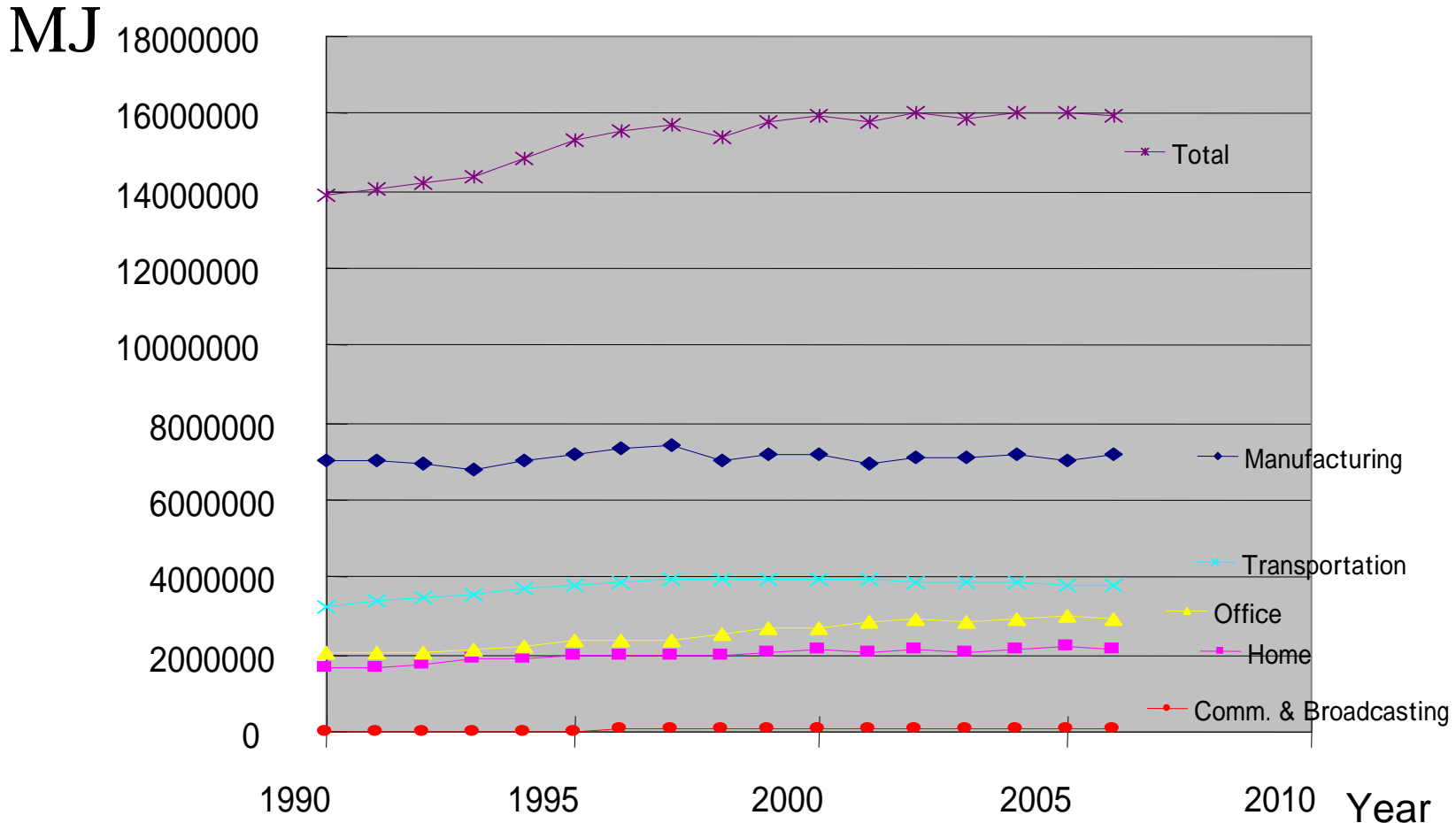
Thursday July 31

Panel Chair: Tohru Asami
The University of Tokyo

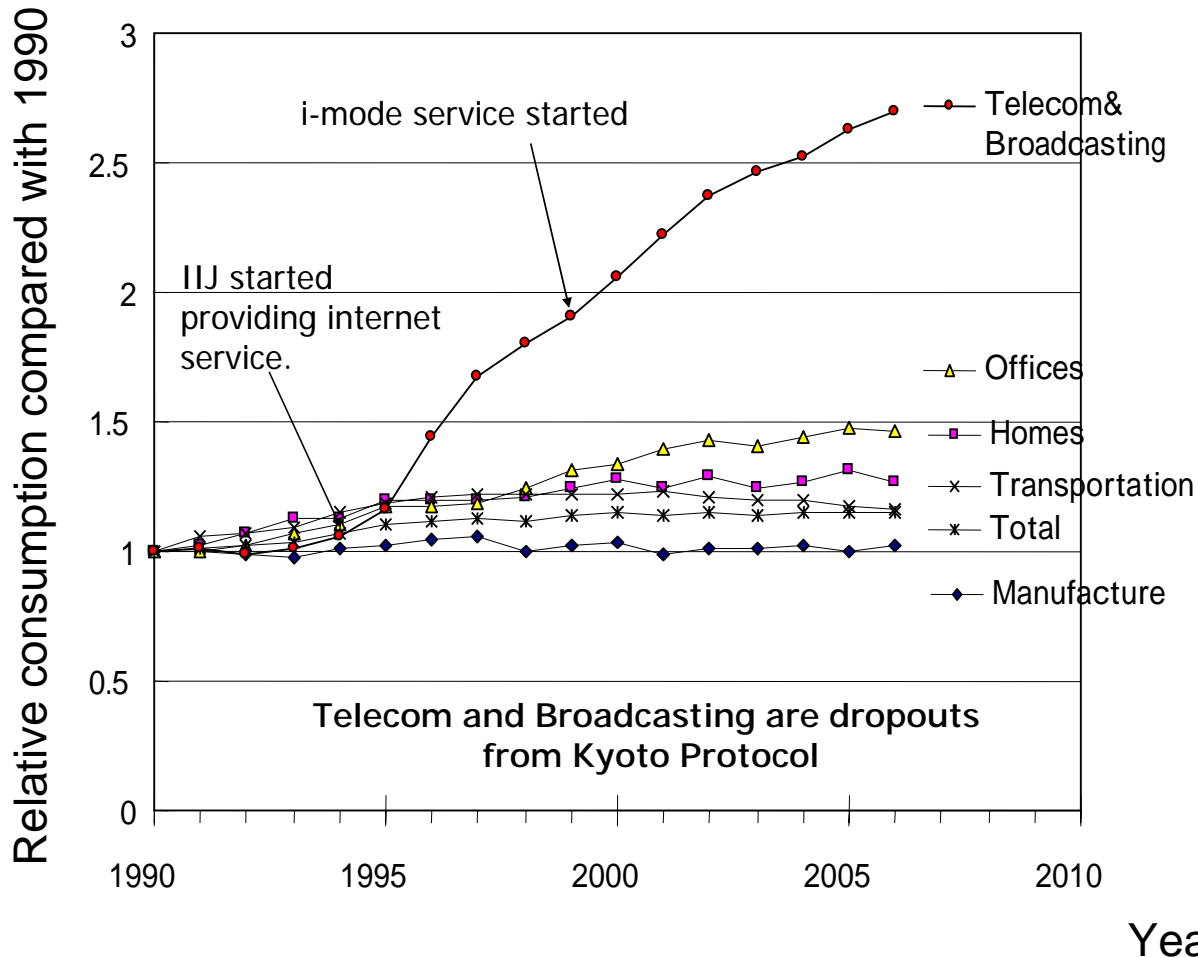
Panelists

- Luc Ceuppens (Routers & Switches)
 - Juniper Networks
- Minoru Etoh (Wireless Network Business)
 - NTT DoCoMo Research Laboratories
- Mutsuo Hidaka (Possible Device Technology)
 - International Superconductivity Technology Center
- Shigeki Aisawa (Photonic Network)
 - NTT Network Innovation Laboratories
- Manos M. Tentzeris (Possible Device Technology)
 - Georgia Institute of Technology
- Yoshio Yasumoto (Information Appliances)
 - Matsushita Electric Industrial Co. Ltd.

Energy Consumption since 1990



Warning by Agency for Natural Resources and Energy, Japan



Schedule

- 15:30-15:35 Introduction
- 15:35-16:30 Short Presentations
 - Yoshio Yasumoto 15min
 - Luc Ceuppens 5min
 - Shigeki Aisawa 15min
 - Minoru Etoh 5min
 - Mutsuo Hidaka 5min
 - Manos M. Tentzeris 5min
- 16:30-17:00 Discussions

Questions

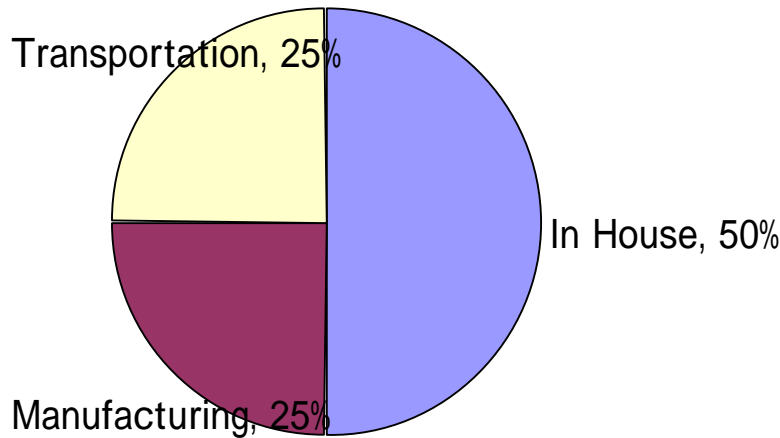
- How much energy do the future network services consume in overall in 2030?
- What should the possible target of energy consumption by networks be in 2030?
- What will be the important technical challenges for that target?
- How about the contribution of photonic or other technologies for power reduction?
- What are energy-saving technologies for information appliances?
- What kind of power reduction methods will be used for commercial wireless networks?
- How about the sensor networks and energy controls?
- To what extent will energy harvesting technologies be successful?

Total Consumption

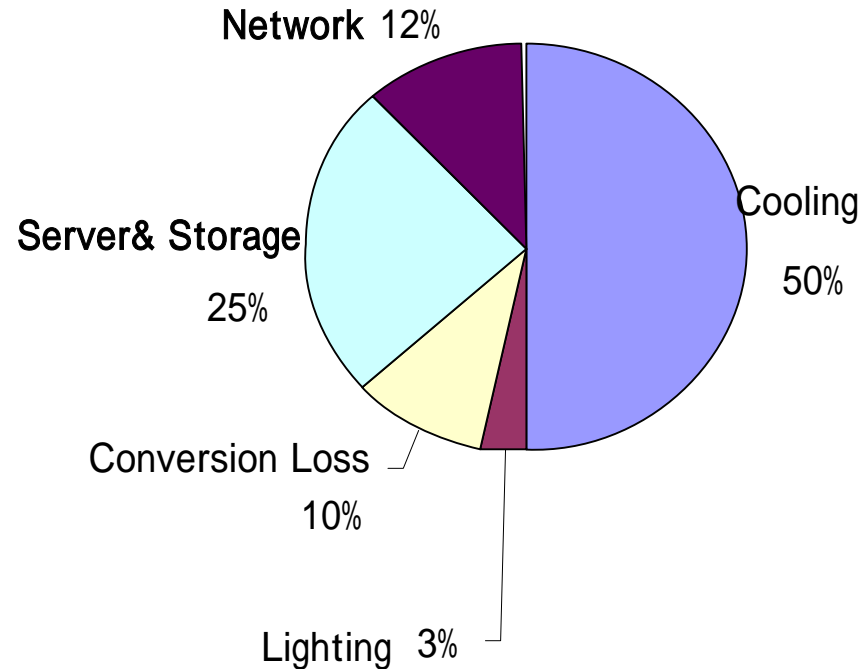
ICT Consumption

ICT = 1/3 of Total

Energy Consuming & Locations



Energy Consumption in Data Center



Ref: BOMA (Building Owner and Managers Association), EIA (Electronic Industries Alliance), AIA (The American Institute of Architects)

Ref: APC (American Power Conversion)

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