



SUPEREFFICIENT.ORG

IEA/4E/SEAD Network Standby Workshop
16-17 September 2013

Beyond Network Standby

Further energy implications & challenges that
need to be addressed

Moderator: Melissa Damnics - Maia Consulting
4E Standby Power Annex Operating Agent

- Network standby policies are only part of the solution
- Efficiency can be maximised by targeting ICT systems

Products

Network
Equipment

Servers

Connection
Medium

Data
Storage

Making Sure Smart is Efficient

- ❖ Network Standby is one part in a bigger system
- ❖ To maximise efficiency the whole system needs to be considered
- ❖ To avoid energy shifting need to consider other parts of the system

What is Beyond Network Standby?

What are the priority areas?

- ❖ Efficient Network Services
- ❖ Smart Meters & Energy Monitoring Systems
- ❖ Demand Response Enabled Products
- ❖ Smart homes
- ❖ Others?

What is Beyond Network Standby?

- ❖ Approaches for promoting efficiency in the priority areas
- ❖ Who will / should lead this work?
- ❖ How can you support this work?

Efficient delivery of network services

Effective energy management needs to:

- ❖ Consider the complexity and interdependency of multiple devices and products on a network
- ❖ Appreciate the relationships between all connected products
- ❖ Understand to gain savings in one part of the system may require action in another
- ❖ Power scaling or adjusting energy use to work required

Efficient delivery of network services

- ❖ Software
- ❖ Network design
- ❖ Network architecture
- ❖ Communication protocols
- ❖ Technical standardisation processes
- ❖ Service providers
- ❖ Product & component manufacturers

“Smart” meters and energy monitoring systems

- ❖ Installation of these systems are increasing globally
- ❖ Have potential to control and reduce energy use of equipment
- ❖ What is the energy consumption of these products?
- ❖ Are there energy savings over the whole system?

Demand response enabled products

- ❖ “Smart” appliances – interactive with the Grid
- ❖ Control power use to reduce peak power consumption
- ❖ Gives more flexibility to electricity supply
- ❖ Technology available – systems for implementation need development

“Smart” or Automated Homes

- ❖ Appliances are connected to a home gateway
- ❖ A home gateway connects its local area networks to the Internet or other wide-area networks.
- ❖ Home gateways allow automated or remote control of appliances
- ❖ Potential to incorporate automated energy efficiency

What is Beyond Network Standby?