



## Task XIX 'Micro Demand Response & Energy Saving'

Linda Hull October 2010





### Task XIX - An Overview



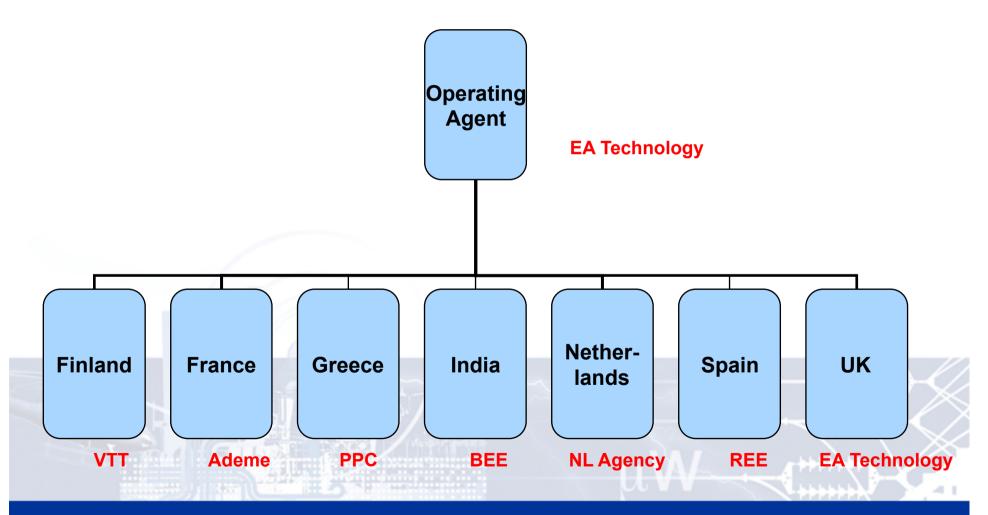
#### Task XIX Micro Demand Response and Energy Savings

- Scope of project
- •What have we done?
- •What have we learnt?



# Task XIX Project Participants







### Scope



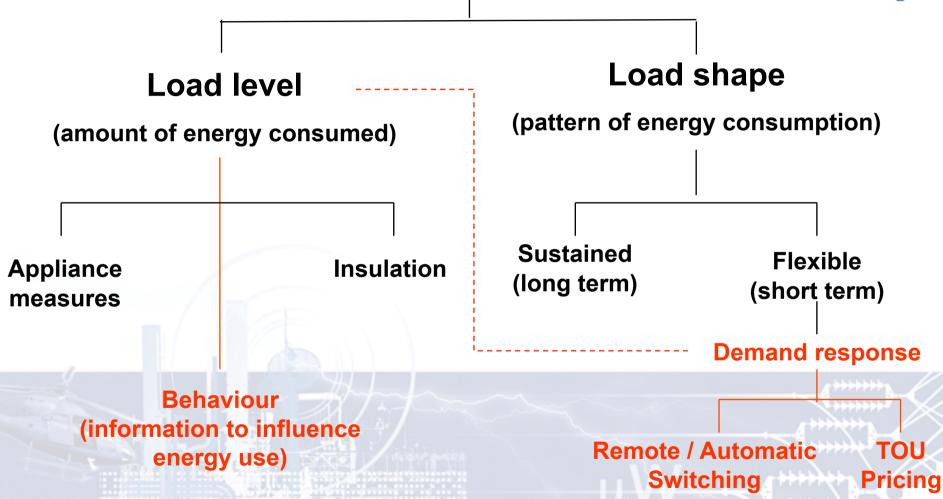
- Demand response and energy saving products
  - via provision of information & remote / automatic switching
    - End-use monitoring and feedback, Time of use pricing, remote / auto switching
- Customer types
  - Residential
  - Small and medium enterprises
    - Commercial and / or industrial sites < 100kW (generally no interval meters)</li>
- Fuel type
  - Electricity only

The project examined the business case for delivering demand response and energy savings from the perspective of the aggregator – is there a viable business opportunity?



#### **Demand Side Management**







# Two International Reports Produced



- Micro Demand Response and Energy Saving Products: Definition of the Requirements and the Options for Effective Delivery
- Evaluating the Business Case for Micro Demand Response and Energy Saving



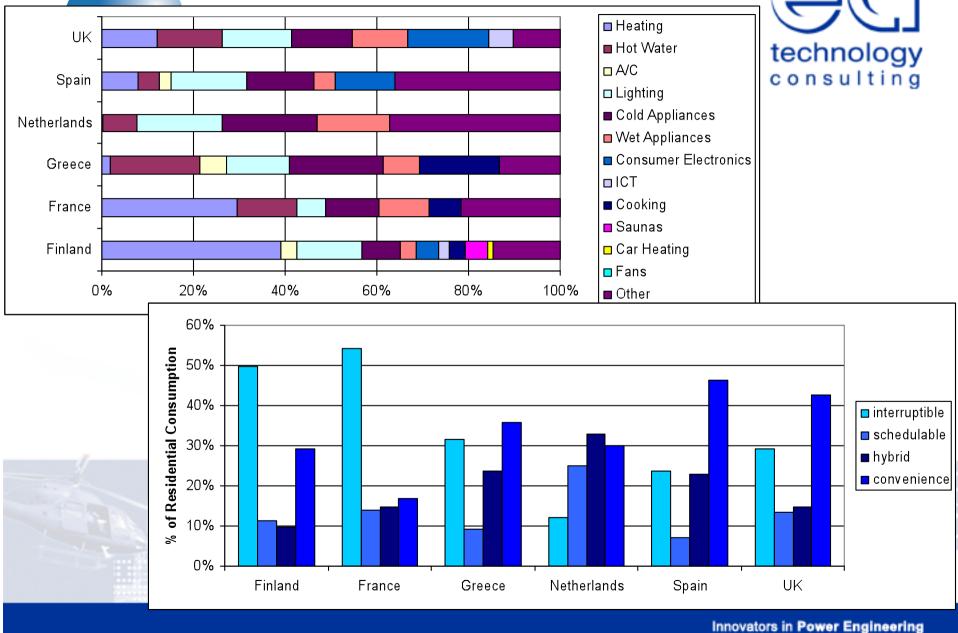
## Report 1: Requirements & Options for Effective Delivery



- Overview of electricity system and trading arrangements
- Demand Response Requirements
- Review of Case Studies and Pilots
- End Use Demand Changes
- Delivery Mechanisms
- Technical Architecture Components



#### Residential Loads in Participating Countries

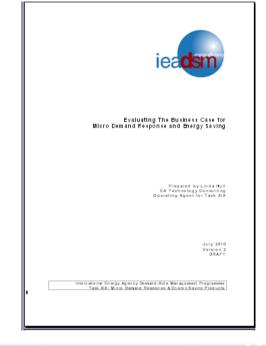


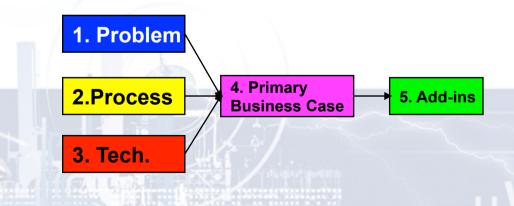


### **Report 2: Evaluating the** ieadsm Business Case



- Five Country Specific Case Studies:
  - Dynamic control of electric heater loads, Finland
  - Dynamic response of residential heating, France
  - Energy efficient air-conditioning equipment, Greece
  - Mass installation of energy efficient lighting, India
  - Direct load control of commercial air conditioning, UK

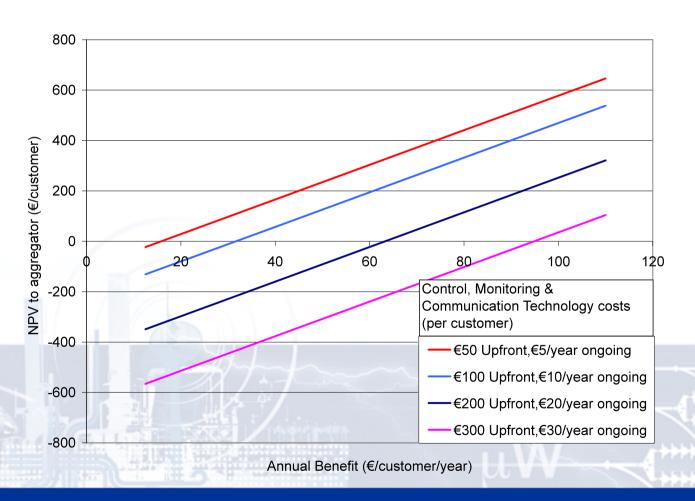






## Direct load control of commercial a/c, UK









- Electricity markets are complex, with a diverse range of stakeholders that is likely to increase
- There are information gaps
  - Lack of information on the consumption habits of commercial, particularly SME, consumers
  - Lack of information on when different end uses occur, for both domestic and SME consumers
- Technologies are rapidly evolving in this area but few are mass market



### What have we learnt? (2)



- Tariff-based interventions are likely to be the easiest to implement in current market arrangements, particularly for domestic consumers
- New and evolving loads, especially Air Conditioning, Electric
   Vehicles and Heat Pumps, present interesting opportunities for load shifting
- The degree to which consumers will be willing to engage with programmes is currently unknown





### Thank you for listening!

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