International Energy Agency

Demand Side Management and energy efficiency

Technology Collaboration Programme

Rob Kool

Chair Technology Collaboration Programme

Rob.Kool@RVO.NL

IEA DSM TCP

[How to use this presentation]

[This presentation can be used in a modular way to create presentations of different length. For example:

- Presentation of 5 min: slides 1, 3, 5, 6, 7, 12, 20, 22
- Presentation of 10 min: slides 1, 3, 4, 5, 6, 7, 12, 19, 20, 21, 22
- Presentation of 20 min: slides 1, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14, 18, 19, 20, 21, 22
- Presentation of 30 min: all slides except this one

PLEASE REMOVE THIS SLIDE BEFORE USING THE PRESENTATION

What is IEA DSM TCP?

- An International Energy Agency (IEA)
  Technology Collaboration Programme (TCP)
  (formerly called Implementing Agreement)
  on Demand Side Management (DSM) and energy efficiency

- 15 member countries + 3 sponsors

+ USA, India, South Korea, New-Zealand

Mission of the International Energy Agency

Reliable

Sustainable

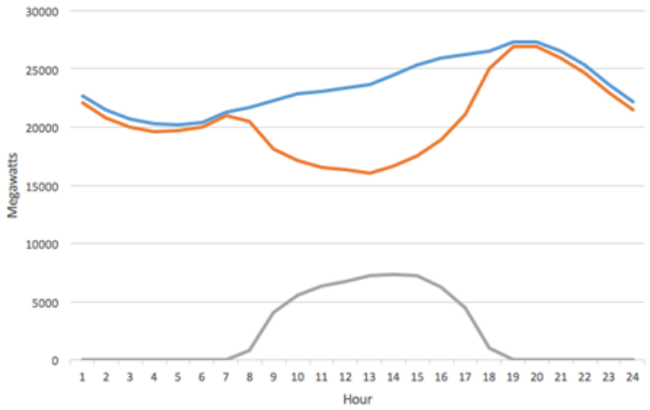
Affordable

Energy

Activity domain of IEA DSM TCP (1)

Demand Side Management (DSM) in the broad sense

Load management



Energy conservation

Energy efficiency

Activity domain of IEA DSM TCP (2)

This includes integration with:

demand side
energy storage

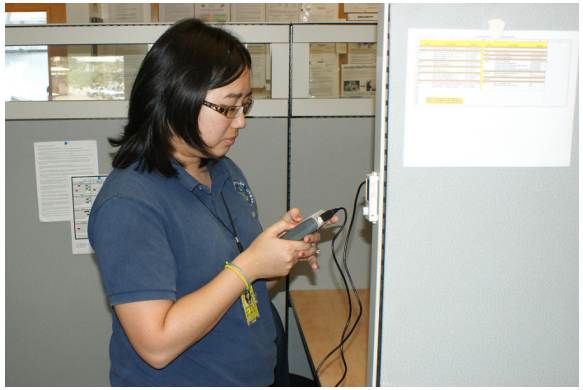
& distributed generation

Activity domain of IEA DSM TCP (3)

Not only a physical side:

energy sources & technology

… but also an important human side:



the user!

Vision of IEA DSM TCP – First choice

DSM and energy efficiency should be

first choice

in all energy policy decisions

designed to create more reliable and sustainable energy systems

Vision of IEA DSM TCP – Why first choice?

Because:

It **reduces GHG emissions** directly (energy savings) and indirectly (RES integration)

DSM enables the integration of variable and distributed energy sources into **reliable** smart grids

Energy conservation and efficiency make the energy transition **affordable**

Vision of IEA DSM TCP – Energy efficiency should be (1)

Energy Efficiency should be:

Visible – market players should see it happening

A priority – for policy makers and industry

Affordable – all stakeholders should benefit

Vision of IEA DSM TCP – Energy efficiency should be (2)

Energy efficiency should be:

Obvious – top of mind

Real – proven by measurements

Realistic – with enough people to make it happen

*Mission and outreach of **IEA DSM TCP***

We want to have **policy relevance**

→ We provide **material** that is readily applicable for crafting and implementing policies and measures

We want to contribute to **technology progress and adoption**

→ We provide **knowledge** about technologies and applications

We want to contribute to **organisational and behavioural changes**

→ We provide **insight** that can make them happen

ieadsm energy efficiency

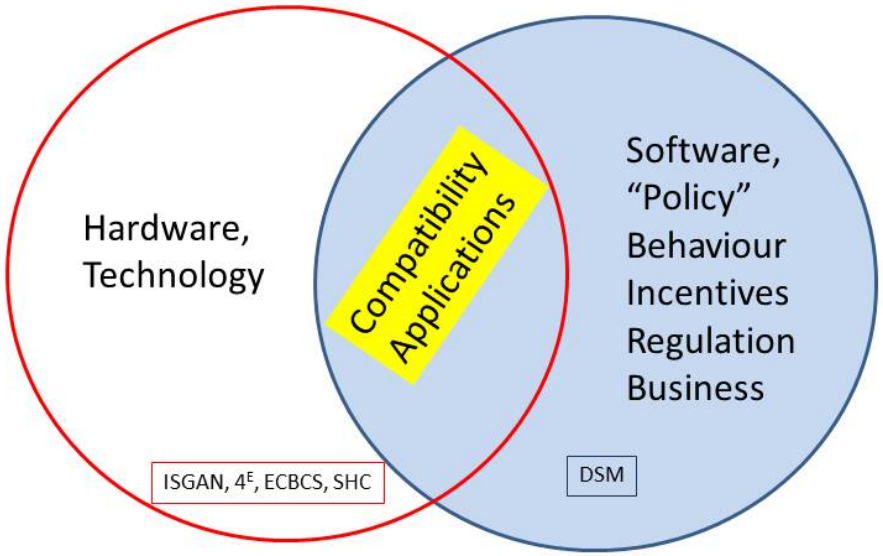
Collaboration within IEA

With the IEA secretariat
(World Energy Outlook, Coordination Groups, Workshops)

With other TCPs:

- 4E (end-use equipment – industrial, commercial and residential)
- ISGAN (smart grid technologies, practices and systems)
- EBC (energy conservation in buildings and community systems)

Within EUWP
(grouping all IEA TCPs on energy end-use)



ieadsm energy efficiency

Ongoing tasks (1)

1) **Innovative Energy Services** (Energy Contracting, ESCo Services)

2) **Integration** of Demand Side Management, Energy Efficiency, Distributed Generation and Renewable Energy Sources

3) **Behaviour change in DSM** – Helping the Behaviour Changers

4) **Business models**

Ongoing Tasks (2)

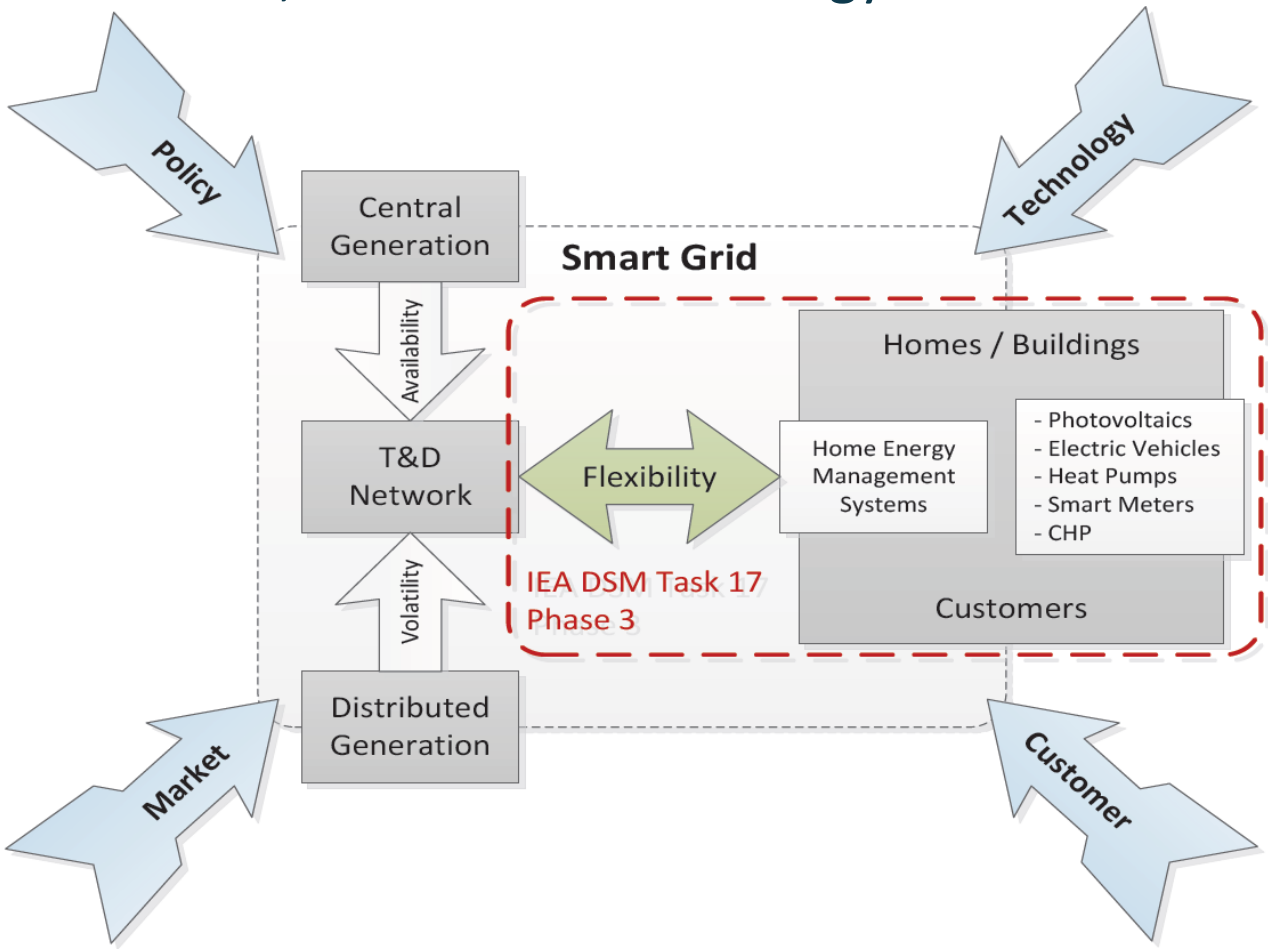
2) **Task 16: Innovative Energy Services** (Energy Contracting, ESCo Services ...)

- Simplified M&V
- Lessons learned for project and market development (e.g. ‘Facilitators’)

ieadsm energy efficiency

Ongoing Tasks (3)

1) **Integration** of Demand Side Management, Energy Efficiency, Distributed Generation, and Renewable Energy Sources

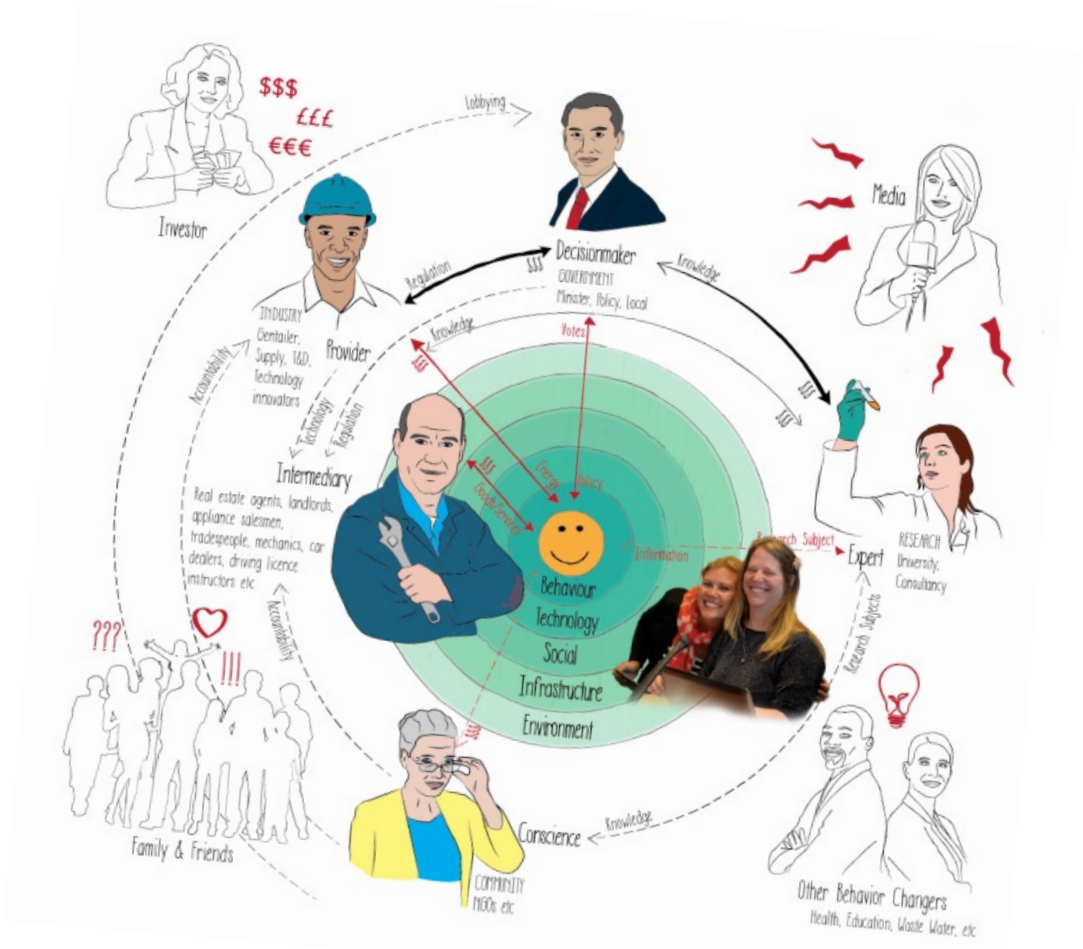


ieadsm energy efficiency

Ongoing tasks (4)

3) Helping agents of **behavior change in DSM**

Foster mutual engagement, collaboration and shared learning amongst agents of behavior change



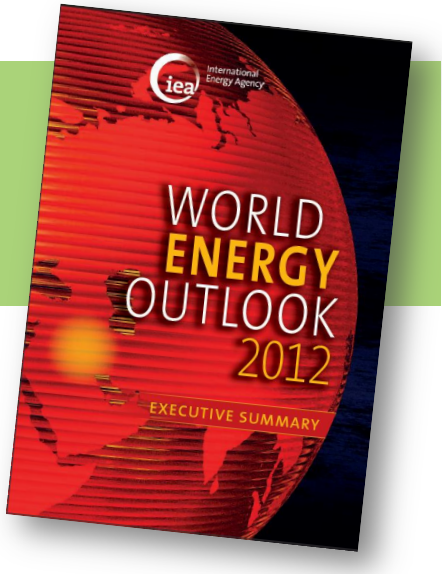
Ongoing Tasks (4)

Business Models for a more effective market uptake of DSM energy services

- Identify proven and potentially successful business models for DSM energy services
- Develop effective policy strategies, stakeholder roadmaps and business models to upscale and spread these energy services

ieadsm energy efficiency

Resulting products (short list)



- **Publications** of results (analyses, overviews, conclusions)
- **Articles** for professional journals (including peer-reviewed academic literature)
- **Workshops** (and presentations at workshops and conferences)
- **Training seminars** and courses

And also

- A growing pool of individuals and organisations that develop expertise in DSM
- Expert platforms
- Discussion forums with potential users, customers, decision-makers, etc.
- Social media presence

All them details…

New website!

www.ieadsm.org

ieadsm energy efficiency

And more details

Newsletter
to members

DSM Spotlight

The Newsletter of the International Energy Agency Demand-Side Management Programme

december 2015

ieadsm energy efficiency

IEA *Energy Efficiency Reducing Energy Bills*

Energy efficiency improvements since 1990 in IEA member countries saved over USD 550 billion in energy expenditure by 2014 – larger than the European Union's annual fuel import bill. In the Energy Efficiency Market Report 2015, the IEA states that over the last 25 years energy efficiency improvements have saved USD 5.7 trillion in energy expenditures in the IEA's 29 member countries. "Energy efficiency is a virtual supply of energy, meeting energy services for business and consumers while reducing their energy costs", notes the IEA.

Energy efficiency is not only reducing energy bills for consumers, it is helping governments improve energy security by reducing imports and lowering exposure to the international energy market. The Energy Efficiency Market Report shows that in 2014, the energy efficiency investments since 1990 have enabled the IEA member countries to avoid USD 80 billion in fossil fuel imports. Germany avoided USD 30 billion in energy imports and boosted its trade surplus by 12% in 2014 while Japan reduced its trade deficit by 8%.

Per capita energy consumption in IEA countries has fallen to levels not seen since the 1980s, yet income per capita has never been higher and access to energy services is continually expanding. The IEA estimates that energy efficiency investments since 1990 have been the most important factor to explain the flattening of

continued on page 2

Member Countries

Austria | Belgium | Finland | India
Italy | Netherlands | New Zealand | Norway | South Korea
Spain | Sweden | Switzerland | United Kingdom | United States

Sponsors

Note from the Chairman

Which Way are We Heading?

Two articles recently caught my attention. The first was an article in the Dutch Volkskrant on October 27th with the heading "Energy Companies Have Become Less Green". This newspaper annually ranks energy companies and has concluded they used 5% more coal than the year before, as this was the cheapest option. The German company, RWE/Essent ended in last place with a 3 out of 10 ranking.

The second article, "The Green Oil Man" was published in Politico on September 30th. This article was about Fatih Birol taking the office of Executive Director of the IEA. He wants to turn the IEA into a hub of clean energy. The article contained the statement:

"If there is any energy company in the world which thinks that climate change policies will not affect their business strategies, they are making a grave mistake."

By the time this column is published, the Paris COP Summit will have been held, and even if there is an agreement, there will be details to be dealt with. And,

continued on page 7

ieadsm energy efficiency

Thanks (& my details…)

ieads energy efficiency