



**Speech**

**by**

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**at**

**DENEFF conference**

**“NEXT GENERATION! Quantum leaps of energy efficiency –  
people, technologies, business models”**

**24 February 2016**

**Title:** **Energy efficiency: the fuel for sustainable development**

**Audience:** Around 300 decision makers from the energy efficiency sector including businesses, associations, politics, NGOs and sciences.

Your Excellency Minister Hendricks  
Mr. Müller  
Distinguished Guests  
Ladies and Gentlemen

Last year

But energy not only there in 7 and 13 - SDGs – energy throughout – health, education,

SDGs 7 and 13

– COP21 and

What happened since Copenhagen – turned upside down – SE4ALL

**7.1** By 2030, ensure universal access to affordable, reliable and modern energy services

**7.2** By 2030, increase substantially the share of renewable energy in the global energy mix

**7.3** By 2030, double the global rate of improvement in energy efficiency

Investments, innovation, jobs, growth green growth.

**Energy efficiency key** – to achieve this – redoubling. Energy efficient cookstoves for women in Africa to insulation of houses in Germany. From efficient power plants to efficient light bulbs.

Globally, there is a steady improvement of energy efficiency (EE) uptake, yet, its impact is largely unnoticed. The scope and impact of the EE market is significant but far from sufficient. We need more: More investment. More political will. More leadership. More voices to raise awareness about EE.

It is about economic growth. It is about energy security.

It is faster, easier and in most cases much cheaper to save a KWH than to produce one. EE investments across the 29 countries of the International Energy Agency since 1990 helped them save USD 5.7 trillion of energy expenditure and 10.2 billion tons of CO<sub>2</sub> emissions.<sup>1</sup>

Uncoupling energy consumption from economic growth has been possible only due to EE investments over the last 25 years. Energy consumption in OECD countries is now as low as it was in 2000, while GDP has expanded by USD 8.5 trillion, an increase of 26%. If this were known to many, EE should surely be better implemented??

However, recent scenarios show that only 40% of the emission reductions required for a 2°C increase by 2050 will come from EE.<sup>2</sup> Collectively, the world is not on the right path when it comes to EE. Clearly not in the 56 countries of the UNECE. EE remains a largely untapped energy resource in most of this region. What makes me say this?

A recent UNECE report (with REN21 and the International Energy Agency) about the Status of Renewable Energy in 17 countries (home to 300 million people) showed that less than 1% of investments were in renewable energy. We lack numbers for the same region on EE, but this is still a good pointer to where investors' appetites lie.

EEFIG estimates that there is a need for a five fold increase in energy efficiency investments in European buildings before 2030.

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<sup>1</sup> Figures from the IEA EE Market Report 2015

<sup>2</sup> Figures from the IEA World Energy Outlook and others

The lower prices on oil, gas, gas and the very low carbon prices can affect the viability of these investments but can also free large investment capacity to investment in energy efficiency.

- I am here because I would like to make EE the “first fuel” not only on paper but in practice. Let’s be honest: it is not happening yet to the extent needed.

### **Need new ways of organizing energy markets – services**

- Achieving the SDGs and climate goals is not possible without radically changing the way energy systems work globally. Energy is the golden thread connecting all SDGs. In reality, it is EE that connects all: not an add-on but an integrated way of living and doing business.
- Improving EE allows for producing more and better goods and services with fewer resources. Introduce sufficient EE measures and you may not need an additional power plant.
- Pathways to future energy systems must be built on a different agenda: not kWh but services, similar to the IT revolution. Witnessing a transition to new business models, new ways of doing business. Maybe not about EE at all... but about energy markets. Energy intensity and innovation. This is why it is exciting...in Denmark, we have seen the impact of successful EE integration into business practices.

Imagine if you in the future do not buy a certain amount of electricity or amount of district heating for your house from an energy company but that you instead bought a certain amount of light and a certain temperature. Then your energy company would team up with construction companies and become a key driver of energy efficiency in buildings. Imagine if you when you went to the gas station with your vehicle could not buy a certain amount of gas or petrol but that you instead bought a certain distance in kilometers that you would like to drive. Then the gas station and the car producers would team up to make the most energy efficient cars. We must change our energy markets from focusing on products to a focus on services.

Danish ESCO model - Energy Saving Company – where private companies carry out energy efficiency investments in buildings but can then finance the investments by the savings and the CO2 emissions reductions achieved. Very successful in public buildings.... It is a good deal for local authorities and a good deal for private companies who can keep the profit if the energy savings are larger than what was agreed.

### **New ways of sharing and implementing best practices – german example and standards – vehicles. VVW**

Germany is a world leader in EE and actively promotes EE throughout the UNECE region. Please use UNECE platform more for such exchange and to share what works and what does not and why.

Our recent publication *Best Policy Practices for Promoting EE* contains a lot of examples from Germany.

Learning EE Networks (LEEN) support innovative companies to increase EE and improve their competitive position. By learning from each other, a multitude of companies cooperate to save energy in the most cost-effective way. Main starting points of the cooperation in

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networks are efficiency improvements (cross-cutting technologies) (e.g. compressed air systems, combined heat and power systems, electrical drives). Evaluation of 30 networks in Germany showed 4,000 profitable measures with an average internal rate of return of **35%**. Companies cooperating in LEEN networks increase their efficiency twice as fast as the German industrial average.

Interaction between the business community and policy makers extremely important. Governments need to know what are the needs of companies, what works and what does not and why.

**Standards** – now how to invest, know how to innovate, know what to buy...  
UNECE standards organization... Minimum performance standards linked to building certification methodologies.

**Need new innovative funding mechanisms – bundling investments, incentives, Danske model i offentlige sector. Develop models throughout...**

We need to scale up financing and create innovate. Global EE investment in buildings (30% of global energy demand) is estimated to be USD 90 billion in 2014. It is good but far from enough. In the EU alone must increase by 5. The savings from energy efficiency improvements can be counted in the trillions. Encouraging that more than 100 financial institutions – from banks to large charities – have committed to scale up their investments in energy efficiency.

ESCO

Climate Investment Fund

FEEI project. The problem with energy efficiency is that many investments are small and dispersed. New insulation, windows, houses. So to achieve big scale results we need bundling – project intermediaries or mechanisms that can bundle energy efficiency investments. Need targeted fiscal instruments to motivate building owners and companies.

**Need new ways of raising awareness.... Video.**

**What is the role of EE for a sustainable economic development?**

**What is the UNECE / UN agenda to accelerate the pace of EE gains (COP, SDGs)?**

- UNECE is neutral platform for exchange of know-how. Honest debate. Difficult questions. Countries can learn from each other. We can help to find best solutions for very diverse conditions
  - EE features in the SDGs, but not enough in COP where renewable energy has obtained greater focus. We need to bring EE to the fore: UNECE Committee on Sustainable Energy, Group of Experts on EE have an EE focus: have worked with other four UN Regional Commissions on a regional agenda for SE4All and the SDGs.
  - In 2014, I signed the *Joint Statement of the Executive Secretaries of the UN Regional Commissions (Hammamet Declaration)*: a roadmap linking EE, renewable energy uptake and access to modern energy services. This roadmap is a perfect example for synergies between the public and private sector: public sector can decrease burden of conventional
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energy subsidies; private sector can reduce energy bills and seek new investment opportunities, practical recommendations about EE, but also: Energy market reform, renewable energy, energy access, energy security, finance and investment, technology, energy data and analysis.

- There was follow-up last year in the 2015 *Yerevan Statement of Common Action*, again EE features. However, the view on EE has evolved to something more holistic. We need also:
  - National sustainable energy action plans
  - Improved national energy statistics programmes and tracking
  - Capacity building and information exchange in a number of areas including EE
  - More international dialogue for technical and knowledge exchange from best practices and
  - Internationally recognized minimum energy performance standards in all sectors
- All are invited to come to the 7th International Forum on Energy for Sustainable Development in Baku, Azerbaijan in October 2016 to implement this agenda further

### **Why does the collaboration between Germany and other countries governments and businesses matter?**

- Works better if best practice attributes are used in a *framework* process to identify best practices. We need to balance selected policies in a strategic approach:
  - Focus on priority EE potential where tangible economic gains can be made
  - Ensure balance of effort and actions over all sectors in the society
  - Ensure an effective mix of resource (financing), delivery capability (EE operations agencies, utilities, ESCOs) and market motivators (labelling, regulations)
  - Ensure a critical mass of efforts
- Governments, through policy making and implementation, through developing right incentives, can and should create an environment conducive to making real difference in EE throughout the whole value chain from source to use.
- Business (you) must make its voice heard so it is going into the right direction.

### **Key message to participants (business leaders and Germany policy makers)**

- Recent dramatic falls in global oil prices and regional gas prices have reduced the financial attractiveness of investing in EE. The market in general still functions. In some countries there are favorable conditions to reduce end-use fossil fuel subsidies.
  - Summary: EE has multiple benefits – economic, social and environmental. Sustainability. Everybody benefits (society, individual companies, households).
  - Most needed: increased political will and awareness of the multiple benefits of EE.
  - Standards, regulations, and guidelines carry a critical role. Specific country conditions may differ but finding a common ground is beneficial for all.
  - EE in buildings standards is important: We recently established a Task Force on the
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subject (co-chaired by Germany and Finland); welcome cooperation. UNECE already has experience in promoting EE in various sectors. In the framework of the World Forum for Harmonisation of Vehicle Regulations (WP.29), it develops regulations increasing vehicles' energy efficiency and lowering emissions. Emission limits for gaseous pollutants have been reduced in the last decades by more than 95 per cent compared to the values established in 1970. Regarding particulate emissions, the levels are now much lower than those initially set up in 1990. We are keen to replicate this success we had with vehicles in buildings.

- Favorite EE policy recommendations:
    - More holistic view on EE as part of energy system, underpinning all policies; informed and integrated regulation
    - Energy prices to reflect real costs
    - More innovative financing tools, access for all
    - Quality of and access to energy-efficient equipment and services increased
    - Behavior should be addressed as much as technologies
    - Achievements must be tracked
    - International regional cooperation is key (see our UNECE Platform)
    - Consumers must be better informed
  
  - On this last point: Innovative solutions in designing PR campaigns can be very effective: see an example from Macedonia (words not needed): **Show the Macedonian video clip**
  
  - We look forward to cooperating closely with Germany, the European Union and all interested countries in improving lives of the people who live here. EE is one effective way to make it happen.
  
  - Thank you.
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