



## **World Energy Council**

CONSEIL MONDIAL DE L'ENERGIE

**Meeting of the WEC Energy Efficiency Technologies (EET)  
Knowledge Network (KN)  
World Energy Council, 62-64 Cornhill, London EC3V 3NH  
20th August 2015**

### **MINUTES OF MEETING**

#### **Participants:**

Klaus Willnow EET KN Leader (Germany)  
Didier Bosseboeuf (France)  
Alexandre Jeandel (France)  
Namejs Zeltins (Latvia)  
Bernd Schnittler (Germany)  
Mohammed Ali Al Azba (Qatar)  
Zulandi van der Westhuizen (WEC London)  
Elena Nekhaev (WEC London)  
Catriona Nurse (WEC London)  
Donnie Joe Worth (WEC London)

#### **Remote participation:**

Janelle Spencer (Trinidad and Tobago)  
Martin Palazzo (Argentina)  
Matthias Boehm (Germany)  
Olawole Oyewole (Nigeria)

### **1. WELCOME AND INTRODUCTION**

Elena Nekhaev welcomed the KN members to WEC London and invited the participants to introduce themselves and their organisations. Klaus Willnow opened the meeting with a

brief introduction of the meeting objectives.

## **2. SUMMARY OF MEETING HELD ON 15th JUNE 2015**

Klaus Willnow summarised the main points of the telephone conference on 15 June 2015

- It was attended by five representatives from three regions and various industrial backgrounds
- The discussion addressed the possibility of building on the results of the previous work which looked at the energy technologies along the entire energy value chain (production to final use)
- The conclusion was that it was desirable for the Energy Efficiency Technologies (EET) KN to continue working on the entire energy value chain, but this task realistically seen was too large and the group must focus on a few core areas.

o Alexandre Jeandel asked if this group covered energy efficiency in power generation. Elena Nekhaev responded that Power plant efficiency is one of the topics included in the WEC KN on the Performance of Generating Plant (PGP).

o The main energy efficiency topics are related to the end use, not production/generation. Therefore it was important to define “Energy efficiency” which will be examined by the KN. Didier Bosseboeuf referred to the example of oil refining which could be considered as “end use”.

## **3. ENERGY EFFICIENCY TECHNOLOGIES WITHIN THE FRAMEWORK OF THE WEC WORK PROGRAMME**

- Elena Nekhaev presentation is attached (ANNEX 1)
- Zulandi van der Westhuizen presentation on World Energy Resources (WER) is attached (ANNEX 2)
- Klaus Willnow presentation (ANNEX 3)

The issues listed below were raised and addressed in the discussion which followed. Given that EET has its own chapter in the WER Report, the EET KN team should determine what approach it takes and how to tackle the coverage of the technologies in the WER report. A separate perspective chapter / report and/or a short summary e.g. flyer could be considered as one of the options. Regarding the connection to KN on Energy Efficiency Policies (EEP) it should be noted that the two KNs belong to two different Study Groups (ANNEX 2):

- KN EET belongs to Study Group Resources on today’s technologies and developments (<5years)
- KN EEP belongs to Study Group Perspectives with focus on current status

#### **4. ENERGY EFFICIENCY POLICIES KNOWLEDGE NETWORK**

Didier Bosseboeuf presented a joint WEC /ADEME project on energy efficiency policies and indicators which has been running since 1993 (ANNEX 4). The main objective of the project is to identify the trends in energy efficiency and evaluate the impact of energy efficiency policies on the performance of national economies by measuring the impact by using a set of established indicators. The results of this work help the exchange of information among WEC members and other relevant expert institutions.

The report usually contains a number of different case studies / deep-dives which are produced for every triennial edition. The case studies selected for an in-depth evaluation with results to be published in the next report in 2016 are:

1. P&Ms to accelerate the penetration of Efficient Electric motors (Motiva Finland)
2. Implementation of Building codes (Ecotech, Lebanon)
3. Energy efficiency information centers and one stop shop buildings (ECEEE-Sweden)
4. Energy management in industry

The general survey of WEC Member Committees is conducted for the first time online and the results so far are very encouraging with the response rate of over 50% and the overall number of countries in the survey over 85.

Given the number of countries surveyed, it is the most comprehensive survey in the world. It covers both OECD and non-OECD countries and its results are published on the WEC website in two databases accessible free of charge. However, a few key countries are missing, including India, China and Russia. WEC will make an attempt to reach out to these countries once again.

In the following discussion other issues were raised:

- It is difficult to identify which factor has a high impact on energy efficiency: policies: markets or technology, and to what extent. That being said, it is still useful to have aggregated information to analyse and define the impact of energy efficiency policies on the countries throughout the world.
- The topic of Energy Efficiency is multifaceted, and comprises many variable factors, such as cultural differences, consumer behaviour, customer awareness, technological status, etc. and therefore research objectives and processes should be clearly delimited.
- Case studies can be used to reinforce and magnify high-level policy messages using a bottom-up approach

Martin Palazzo raised the issue of the increasing impact of IT on the way the energy sector is working, including energy efficiency aspects.

Further developing this idea, Bernd Schnittler proposed two topics>

1. Will the digital revolution increase energy efficiency? (Related to “big data”, large scale connectivity, and large-scale measurements)

KN members' comments and views are presented below:

- Key factor is data protection and government's rights to access company data (public and private) on energy use.
- The digital revolution is expected to have a large effect on energy efficiency, but the exact way is not certain.
  - This topic could be an additional text box within the WER survey
  - This can be included as a chapter/section in the EET report
- Important aspect is that the assessment of energy efficiency policies is heavily relying on the availability of information.

## 2. Low oil price affecting energy efficiency?

Individual KN members' comments and views are presented below:

- Fossil fuel prices might increase in the long-term, and there will be an inevitable need for energy efficiency. Energy efficiency measures implemented now are for the long-term anticipating energy shortages, but in future, it will be out of necessity.

At present, there seems to be room for higher taxation of automobiles, as fuel prices on the world markets have dropped. By not passing these price reductions onto the final consumer governments can raise additional revenue from falling fuel price, and an associated fuel tax, and in this way create an incentive for energy efficiency.

Continuing the discussion about case studies, Mathias Boehm indicated that Bayer has experience from introduction of a few energy efficiency measures and he could provide a brief report / case study on, energy management in the industrial process of chemicals.

## 5. PRESENTATIONS BY KN MEMBERS

Presentation prepared by Olawole Oyewole, KN member from Nigeria is attached (ANNEX 5)

## 6. OBJECTIVES, DELIVERABLES, FUTURE DIVISION OF WORK AND TIME SCHEDULE, WORKSTREAMS & MEMBERS' CONTRIBUTIONS

Topics and ideas

- Klaus Willnow (Siemens)
  - Continuation of industry report (similar to previous work)
    - Automation, motion, HVAC systems, etc.
    - Look into a few countries or specific industrial branches
  - Smart grids
    - What role does digitalization play in grid management?
    - Transmission and distribution related issues

- Focus on having a system-wide efficiency approach
- Alexandre Jeandel (Engie)
  - Energy efficiency in buildings
  - Potential of digitalization in energy efficiency
  - Energy efficiency of electricity generation (to be clarified by EN with KN PGP)
- Bernd Schnittler (MEW)
  - Relationship between energy suppliers and end consumer
    - In regards to business/investment decisions
    - Past optimization and savings of energy
- Mohammed Ali Al Azba (Qatar Environmental & Energy Research Institute)
  - Smart grid technology (demand-response solutions and ideas)
    - Electricity management solutions
    - Enabling technology to make the electricity usage changes that human consumers will not do otherwise
    - Case study based on R&D project in Qatar
- Namejs Zeltins (WEC Latvian Member Committee)
  - Energy intensity/consumption per unit GDP
    - Growing energy consumption around the world, but no increase in energy efficiency
  - Efficient lighting systems (inside and outside buildings)
    - Indoor and street lighting
  - Building efficiency obstacles in Latvia could be a possible case study for the future; similar situation in some Eastern European countries

### **Scope**

The KN EET members are requested to check if their proposed ideas would be possible as EET topics. In general it was agreed to highlight the importance of the digitalization and its role in the energy system. In all topics the effect of digitalization on energy efficiency should be checked and, if possible, considered.

### **Time schedule:**

- Mid-September – proposal and confirmation of topics and commitment to lead the respective topic by KN EET members
- End October/Early Nov - outline of specific topics
  - Deliver to study group
  - 3-4 pages per topic and case study
- Nov – KN EET Meeting in London to prepare input for Study Group meeting on

Dec 2

- Dec 2015: Incorporate feedback of Study Group in topic outlines
- 1Q 2016 (March 2016) – deliverables for study group
  - In time for full resources report (April 2016)
- May/June 2016: KN EEP workshop in London (tbc); participation of KN EET is welcomed to present first results
- Summary
  - 3 months of preparatory work (Oct- Dec.'15)
  - 3 months of detailed work (Jan – Mar '16)
  
- **Objective: Identify an event or a conference or high-level workshop for launch of the report and dissemination of its findings**

## **7. CASE STUDIES / DEEP DIVE TOPICS**

See discussion Item 6 above.

## **8. ANY OTHER BUSINESS**

No other business was reported

## **9. DATE AND VENUE OF NEXT MEETINGS**

- KN EET meeting in London in Nov (exact date to be confirmed)
- Full Study Group meeting in London 2-3 December 2015