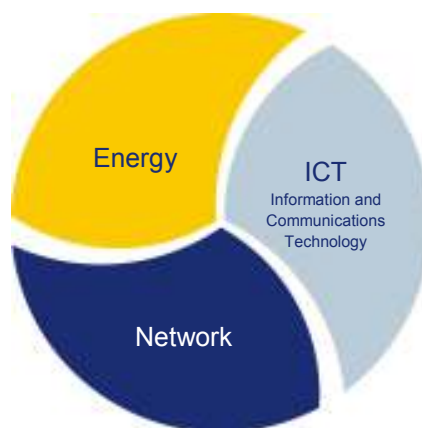


Efficient Electricity Distribution

12th EU Hitachi Science and Technology Forum
Brussels, May 7th 2010



EWE – The multi-service company



Innovative ideas and products

As a multi-service company the EWE Group incorporates three business areas:

- Energy
- Network
- Information and communications technology (ICT)

They enable us to provide our customers with an integrated services portfolio of innovative ideas and products.

Combining energy, telecommunications and IT services offers unique synergy potentials and provides a central focus for the Group's strategy – working towards tomorrow today.

EWE – Ten assumptions for the future



ENERGY CONSERVATION



ENERGY EFFICIENCY



RENEWABLE ENERGIES



EWE has a vision

To ensure

- efficient
- economic and
- environmentally compatible

energy supply we have drawn up ten assumptions jointly with renowned scientists.

E³ The BULLENSEE ASSUMPTIONS

The core statements and recommendations of the assumptions are aimed at:

- Conserving even more energy
- Boosting energy efficiency significantly
- Developing renewable energy sources

The BULLENSEE ASSUMPTIONS point the way, among other things, for our research and development activities.

Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

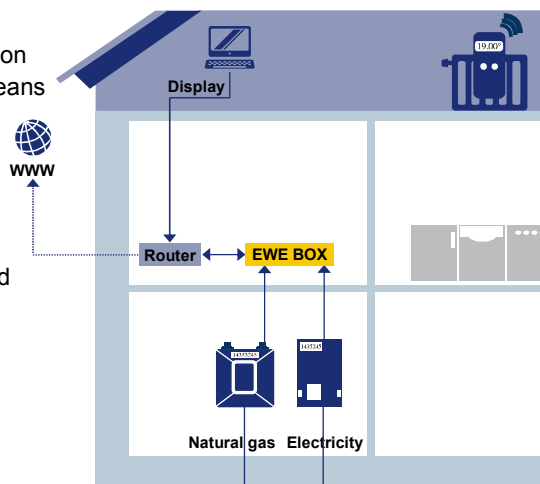
3

Energy Conservation: finding potentials using the EWE Box



With the EWE Box as the data interface in the home, conservation potential can be enhanced by means of:

- Bidirectional communication
- Smart devices and facilities
- Integration into a decentralised energy management system
- Customer-specific tariffs



Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

4

No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author

Energy Efficiency: efficient generation with fuel cells in households



The basic energy requirements of a house can be met efficiently by using fuel cells:

- Fuel cell heaters can generate both electricity and heat
- CO₂ conservation of up to 35% can be achieved
- EWE has been testing fuel cell devices made by different manufacturers in practical trials for years
- In the years ahead this technology is to be developed to market readiness



Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

5

Renewable Energies: going offshore with Alpha Ventus



EWE and its partners E.ON and Vattenfall as shareholders of Deutsche Offshore-Testfeld und Infrastruktur-Gesellschaft (DOTI) are setting up and will jointly operate Germany's first offshore wind park in the North Sea.

The alpha ventus offshore wind park

- 46 km off the North Sea island of Borkum, outside the national park zone
- Water depth of between 28 and 32 metres
- 12 five-megawatt wind turbines manufactured by Multibrid and REpower
- 60 km of underwater cable
- A three-phase 110-kilovolt grid connection



Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

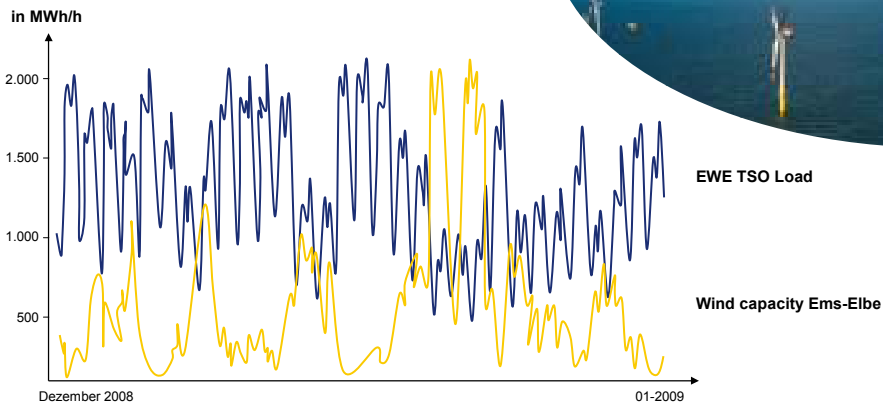
6

No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author

Fluctuating renewables are a challenge to the grid



system load EWE Netz: EWE TSO 110 KV and wind capacity
Ems-Elbe 20KV 20. Januar 2009



Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

7

The eTelligence-Idea tackles this problem



The R&D project *eTelligence* is one of six winners of the BMWi technology competition *E-Energy*.

eTelligence develops and field-tests:

- a regional market place for electricity,
- feedback systems, tariffs and incentive programs,
- power generation and demand side control systems,
- modern ICT and international standards.



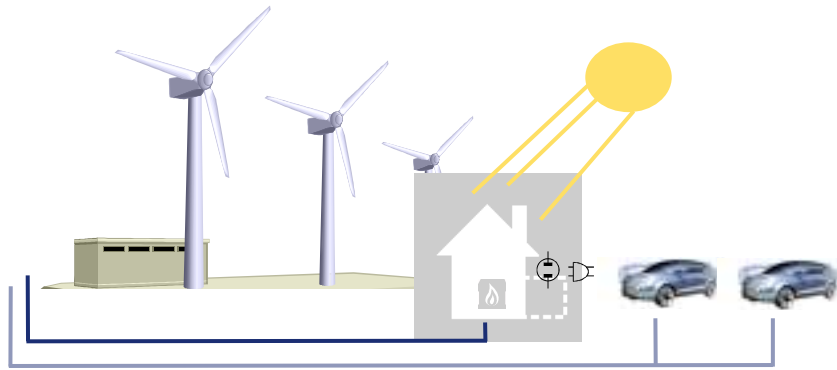
Field-test: bridge the gap between research results and “real-life” needs.

Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

8

No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author

The electrically driven car is a new consumer with potential for more



Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

9

We developed the E3 together with Karmann

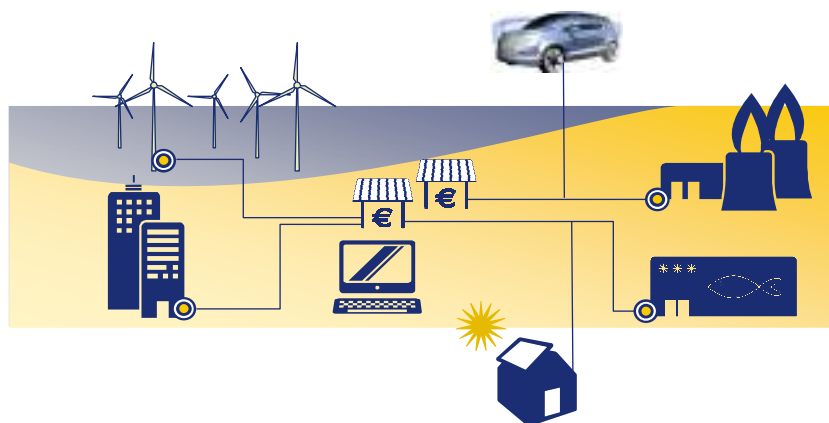


Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

10

No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author

Our vision: Electrically driven cars participating in future energy markets



Efficient Electricity Distribution, Dr. Eberhard Meller, Senior Counselor

11

Thank you for your attention.

EWE Aktiengesellschaft
Tirpitzstrasse 39
26122 Oldenburg, Germany
T +49 441 803 - 0
www.ewe.de



No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author