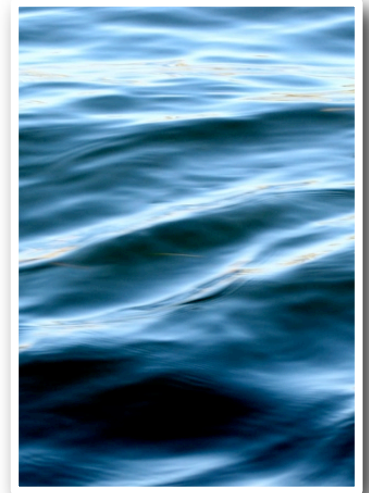
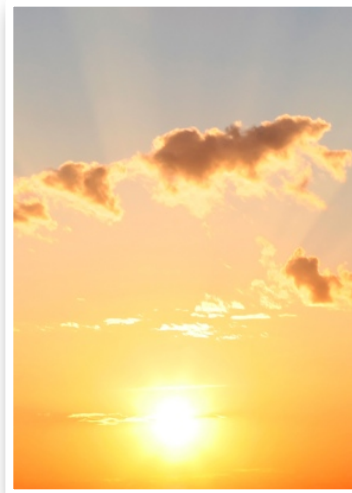
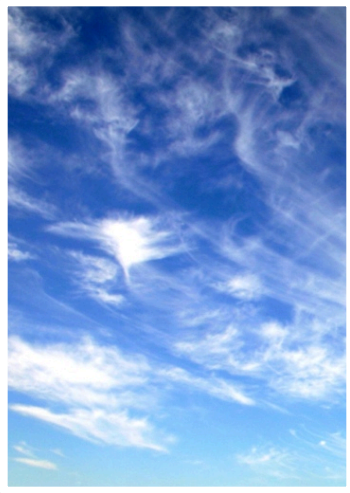
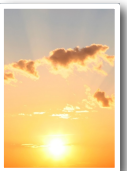
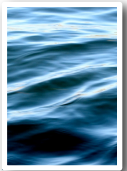


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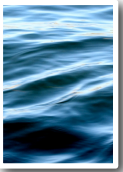
World Sustainable Energy Days

Austria, Wels, March 2010



- **4 day conference in Wels**
- **Pellet - Solar thermal - Building renovation**
- **> 750 participants from 51 countries**

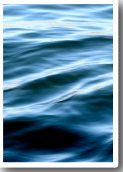
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Low energy buildings

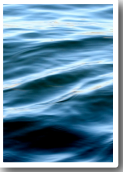
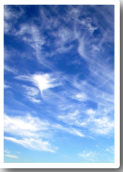
Renovation of buildings

- Low energy
- Zero energy
- Plus energy



Energy reduction of buildings

- **50% reduction of buildings is possible**
- **Today: 70 power plants for stand-by**
- **75% reduction of energy in BAU both possible and rational**

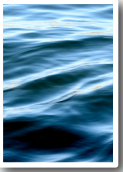


Instruments for low energy building

- **Certificates for buildings**
- **Improve the meaning of certification**
- **Random inspections of heating, cooling and ventilation.**
- **Financial benefits**
- **Clearer definitions**

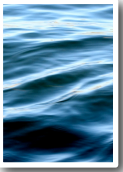
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Martin Elsberg EU-kommissionen



Instruments for low energy building

- National targets and policies
- Deep renovation
- Financial backup
- Well-educated entrepreneurs
- Well-defined system for renovation



The building renovation program Upper Austria

- **Stick - laws and roules**
- **Carrot - financial benefits**
- **Tambourine - awareness and information**
- **Target: 100% RES in 2030**

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Gerhard Dell Energi kommissionär O.Ö Energiesparverband

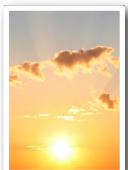
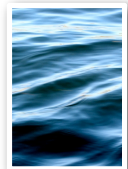
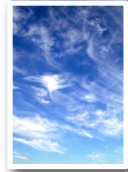


Improving US building energy efficiency

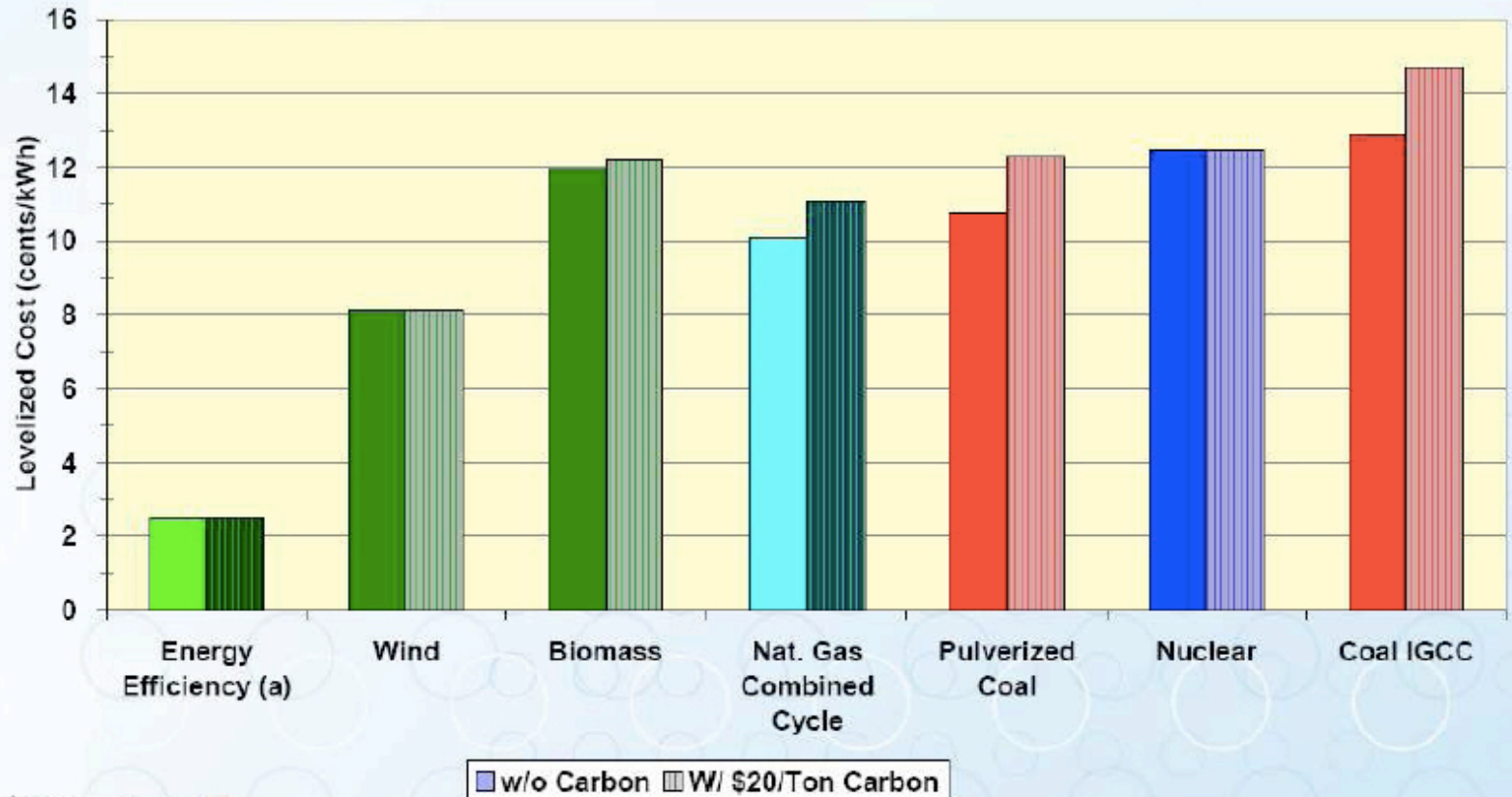
- **Energy efficiency - best way of reducing energy costs**
- **Nuclear costs 50% more than windpower**
- **Spending 2 billion on energy efficiency - savings 6 billions**

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Ian Finlayson DOER Dep. of Energy Resources, USA



Average Utility Cost of New Electric Resources



ACEEE
American Council for an Energy Efficient Economy

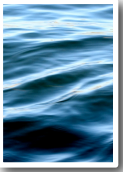
Source: UCS 2009 except (a) ACEEE 2009

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www.se-ro-repap.se



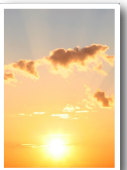
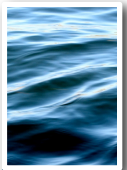
International examples of building renovation

- Heating reduced with 94 %
- Before renovation: 250 kWh/m²
- After renovation: 15 kWh/m²
- Website:

www.iea-shc.org/task37

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Fritjof Salvesen IEA & KanEnergi AS, Oslo



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Fritjof Salvesen IEA & KanEnergi AS, Oslo

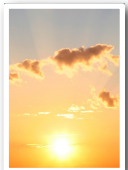
Mariell Mattison

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Passiv renovation house in Linz



http://www.wsed.at/index.php?eiD=tx cms showpic&file=uploads%2Fpics%2F31_EX_MG_8938_02.jpg&width=800m&h

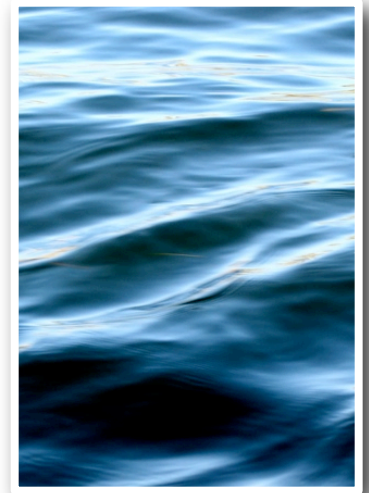
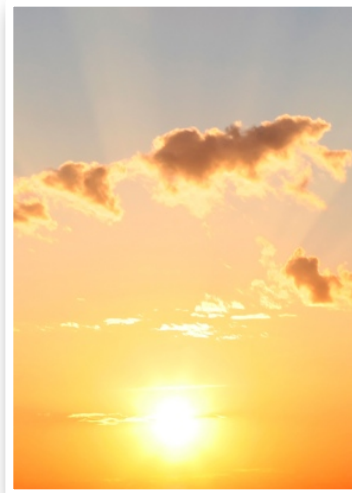
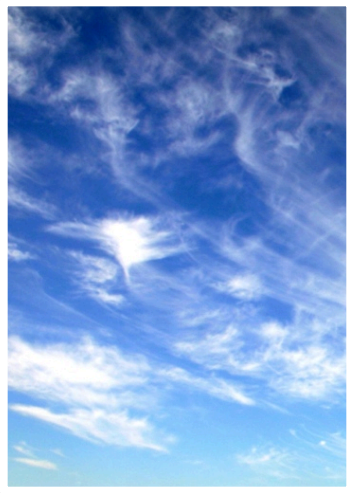


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Thank you for your attention!



World Sustainable Energy Days

Austria, Wels mars 2010