


INFORSE-EUROPE
International Network for Sustainable Energy



Energy efficiency & education

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INFORSE-Europe European Sustainable Energy NGO Seminar
Artefact, Germany, November 10-14, 2009

http://www.inforse.org/europe/seminar09_Artefact.htm

 **NORGES NATURVERNFORBUND** FRIENDS OF THE EARTH NORWAY 1

Norwegian Society for the Conservation of Nature

- Established 1914.
- 100 local and regional groups.
- 18.344 members.
- Biodiversity and climate.
- Awareness raising, information and policy.

 **NORGES NATURVERNFORBUND** FRIENDS OF THE EARTH NORWAY 2

School project SPARE on environment, energy & climate

- 16 countries, 3,000 schools.
- Coordinated by local env. NGOs.
- Teacher training & materials.
- International competition.
- Practical approach (learn-do-tell).
- Initiate real efficiency measures.





 **NORGES NATURVERNFORBUND** FRIENDS OF THE EARTH NORWAY 3

We need energy service – not energy

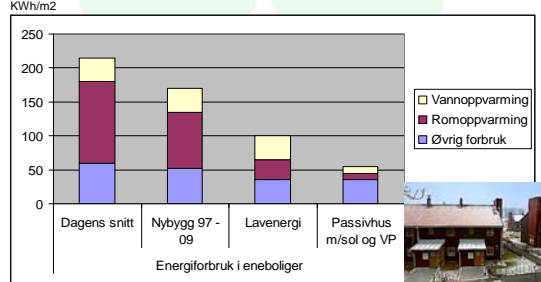
We use:
Light, heat, cooling, moving, electronic, chemical processes.

We do not use:
Oil, coal, electricity, gas, wind...


 **NORGES NATURVERNFORBUND** FRIENDS OF THE EARTH NORWAY 4

Energy consumption in buildings

KWh/m²




Energiforbruk i eneboliger

 **NORGES NATURVERNFORBUND** FRIENDS OF THE EARTH NORWAY

Why is energy efficiency so difficult?

- It is not visible (but you can feel it).
- It is not a product, but a feature.
- It is delivered in small amounts.
- Many stakeholders are involved.
- Is confused with saving?

 **NORGES NATURVERNFORBUND** FRIENDS OF THE EARTH NORWAY 6

Energy education

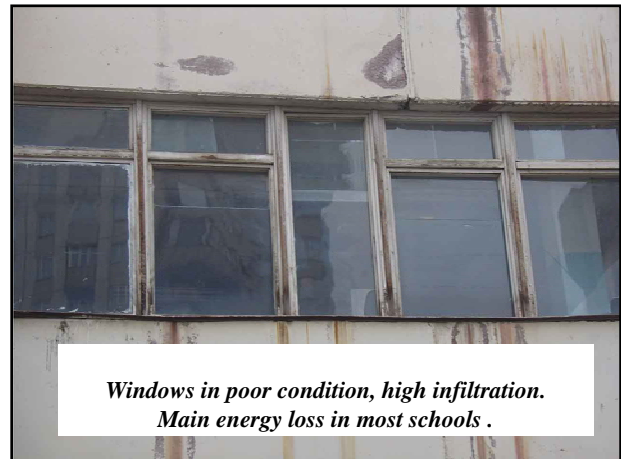
- Understanding of energy, energy services.
- Understanding of link between energy and environment.
- Change attitude and behaviour.

Schools responsibility?

- Theoretical education on energy and environment.
- Awareness and responsibility as citizens.
- Practical energy measures.
- Spread knowledge to local community.

Practical energy measures I

- Investigation of class/schools energy consumption/need for energy services.
- Monitoring/energy patrols (awareness save 10-15 %)
- From service to source – track energy path.



*To repair is simple, cheap and quick.
Indoor temperature increases 3-8 C.
Why is it not happening?*

Spread knowledge to local community

- Information on school: Lessons for younger pupils, school posters, exhibitions.
- Meetings/performances for parents.
- Petitions to local decision makers.
- Performances/exhibitions in public space.
- Information posters in neighbourhood.
- Etc!

Thank you for the attention!

WWW.SPAREWORLD.ORG

NORGES NATURVERNFORBUND FRIENDS OF THE EARTH NORWAY 13

Necessary reductions

	Global	Annex I	Non-Annex I
2020	Peak within 2000-2015	25-40 % reduction from 1990-level	Substantial lower growth than business as normal in Latin-America, Middle-East, Asia and planned Asia
2050	50-85 % reduction from 2000-level	80-95 % reduction from 1990-level	Substantial lower growth in all regions

Stabilizing on 450 ppm CO₂e. Source: IPCC AR4 WGIII)

NORGES NATURVERNFORBUND FRIENDS OF THE EARTH NORWAY

