

# Small Scale Sustainable Energy Solutions – Experiences of the SPARE Project in the EECCA Region



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# SPARE

International project for education and practical actions on energy and climate



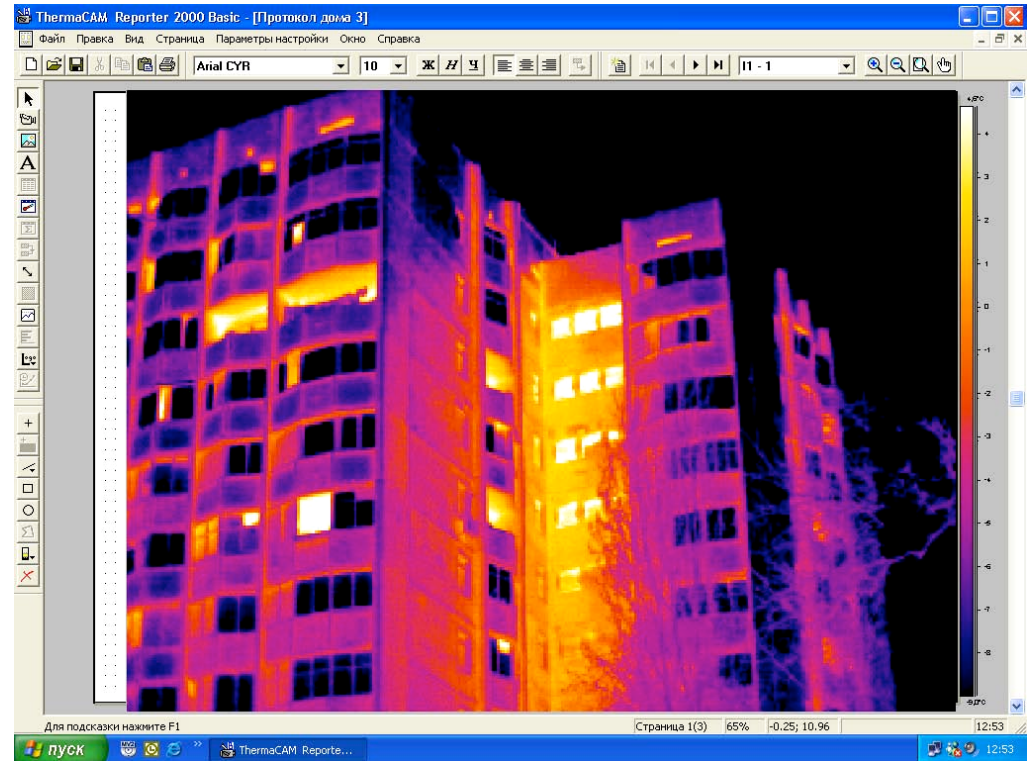
**PARTICIPANTS - 16 countries of Central Asia, Caucasus and Europe:**

**Belarus, Moldova, Poland, Portugal, Romania, Russia, Ukraine, Macedonia, Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.**

# Do we need more energy?

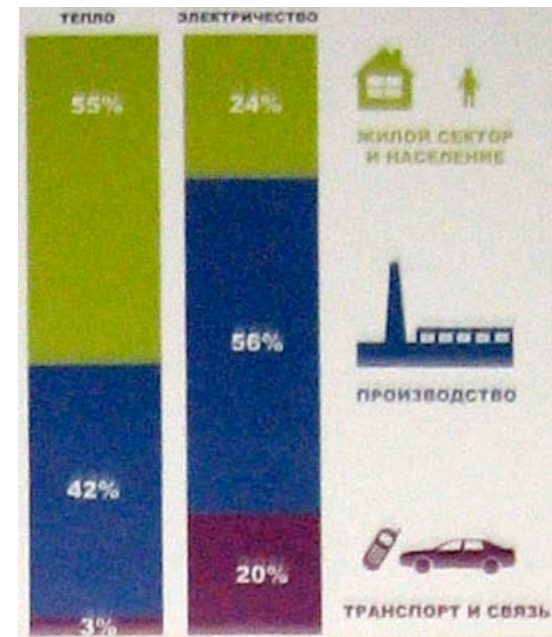
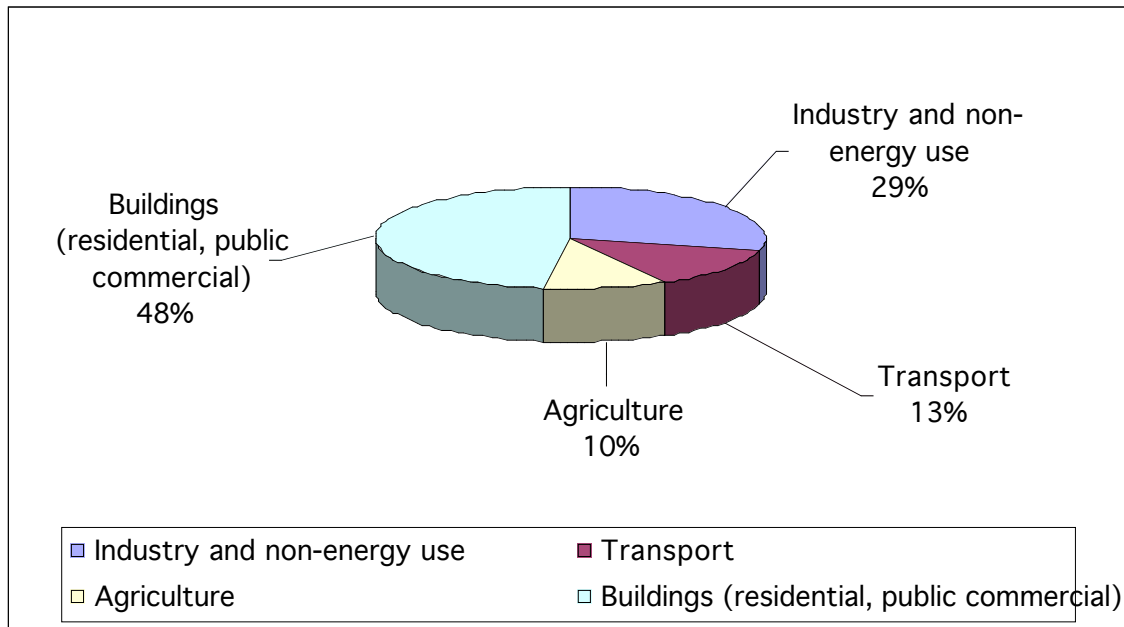
Common problems of post-soviet countries:

- Heating deficit in the residential houses,
- Energy losses in the houses more than 50%,
- Low energy efficiency in all sectors.



**SPARE shows**, that simple **low cost energy saving measures are possible**. So us replacement of traditional carbon energy sources with local renewables.

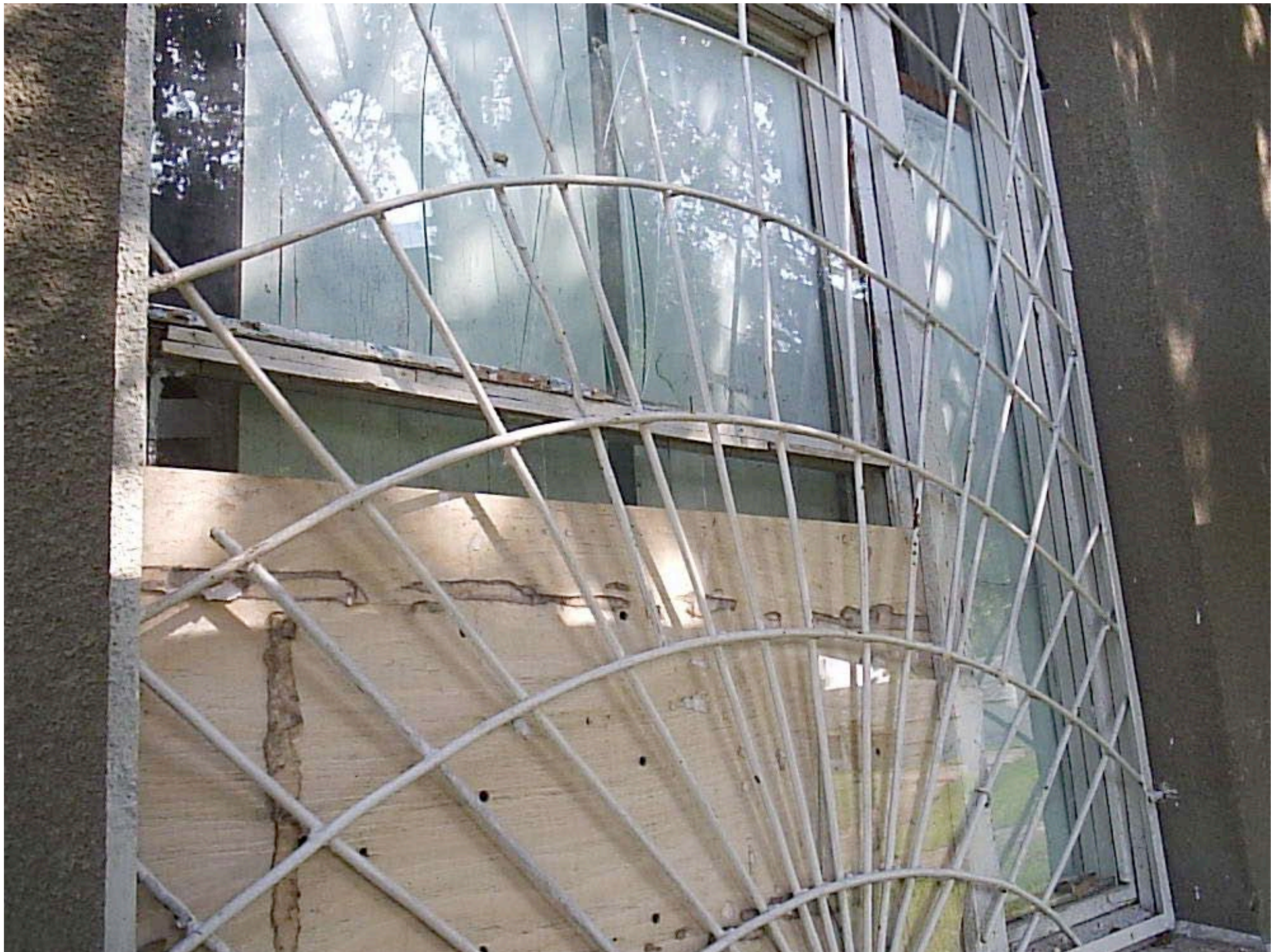
# Energy consumption (Kyrgyzstan and Russia)























# SPARE

- Educational textbook and practical tasks on energy saving at schools and at homes, developed by NGOs.
- Gradually in cooperated in the educational system.
- International and National competition of school energy projects "Energy and Environment"
- Web-site and spare\_internal mailing list.
- **SPARE as public relation component of major energy efficiency and RE activities.**



## What NGOs can offer

- Knowledge & experience.
- Network & international exchange.
- Additional information & methodical materials, support for teachers.
- PRACTICAL TASKS AND ACTIVITIES AT SCHOOLS, AT HOMES.
- INFLUENCE ON SOCIETY.





# **SPARE** NGOs inform society and promote sustainable local energy solution

- Low cost energy saving measures, windows insulation – practical projects.
- Use of solar energy for heating water and other home purposes – demonstration projects.
- Producing biogas from organic waste – pilot projects.
- Bio fuel from timber waste and other organic waste – dissemination of best practices.
- Information and demonstration of other energy solutions – exhibitions, publications, spreading information....



# Promotion of the solar energy sources in Kyrgyzstan

## ■ Plastic Sun Collectors



Bonn Energy Week  
WECF side event 11th June 2008

# Promotion of the solar energy sources in Kyrgyzstan

## ■ Batch heater and Sun Pasteurizer (milk)



Bonn Energy Week  
WECF side event 11th June 2008



# Promotion of the solar energy sources in Kyrgyzstan

- Exhibitions are placed in the socially important territories such as kindergarten, tourist centre, mosque, children's home etc



Bonn Energy Week  
WECF side event 11th June 2008





# Energy efficient "Green House" in Tajikistan



# Windows Insulation

(Armenia, Georgia, Kyrgyzstan,  
Kazakhstan, Macedonia, Russia)

- Insulation of one window saves 30% energy, gives reduction of CO2 emission more than 3,5 ton per year (35 ton for window lifetime).
- Windows insulation in Central Asia is supported by Norwegian travel agency.
- In Kazakhstan - “Golden Standart” for the windows insulation project – CDM.











# Energy saving = biggest energy source

- Insulation of every window saves more than 7 MWt per year, 70 MWt for window lifetime.
- Insulation of windows at schools of North West Russia can save amount of energy, equal to production of the biggest heating power plant in the region.

# Energy saving = biggest energy source

SPARE teaches how to save electricity:

- using energy saving lamps,
- choosing energy efficient home equipment,
- avoiding stand-by regime,
- energy effective lifestyle in general (travel, recreation, shopping, waste management).





## Energy saving - sustainable alternative to nuclear energy

- In North-West Russia the potential of energy saving is more than 40 %.
- It gives opportunity to stop old reactors of the biggest and oldest in the Baltic Sea region - Leningrad Nuclear Power Plant with reactors of Chernobyl type.



# Thank you!



## Friends of the Baltic

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