



# ***REDIRECTING FINANCIAL FLOWS TOWARDS RENEWABLE ENERGY AND ENERGY EFFICIENCY INVESTMENT***

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The New Energy & Climate Policy**

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# Mednarodni cilji in perspektive

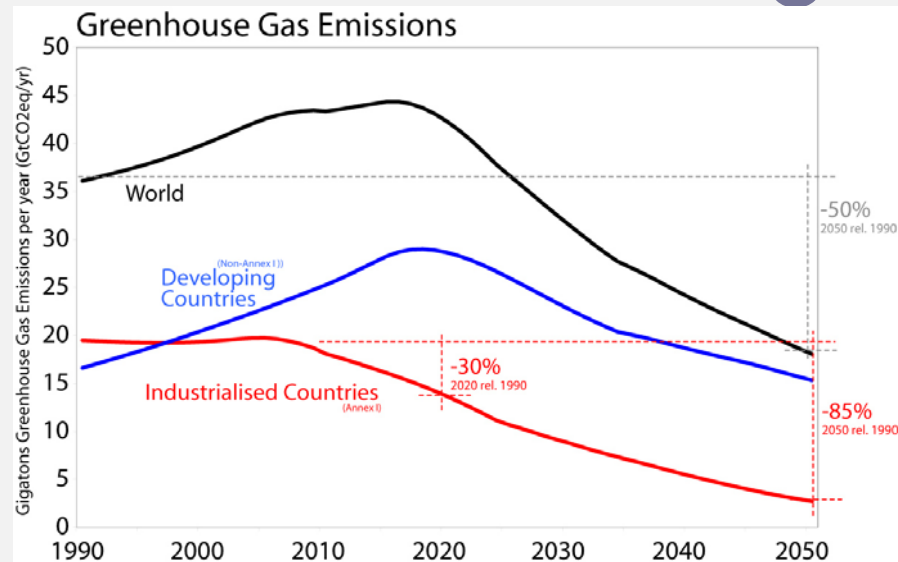


- **Vision:**  
**2° C**  
**450 ppm**  
**- 50%, 2050**  
**- 25-40%, 2020**  
**(industrialised countries)**

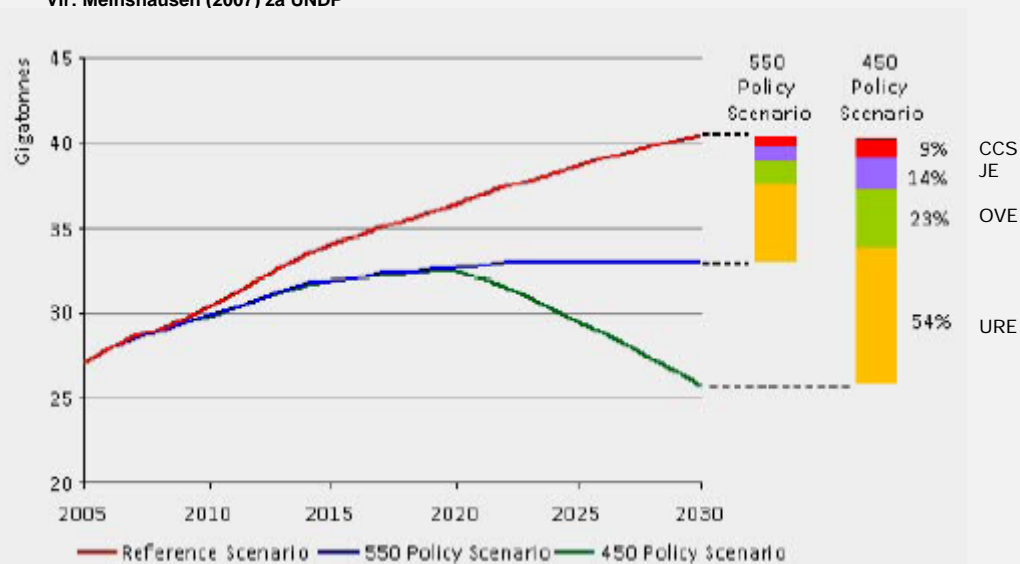
- **IEA, WEO2008:**  
**major contribution by**  
**existing technologies**

**Additional investment**  
**0,6% BDP/a**

**Costs < 0,12% BDP/a**

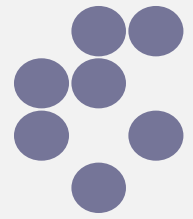


Vir: Meinshausen (2007) za UNDP



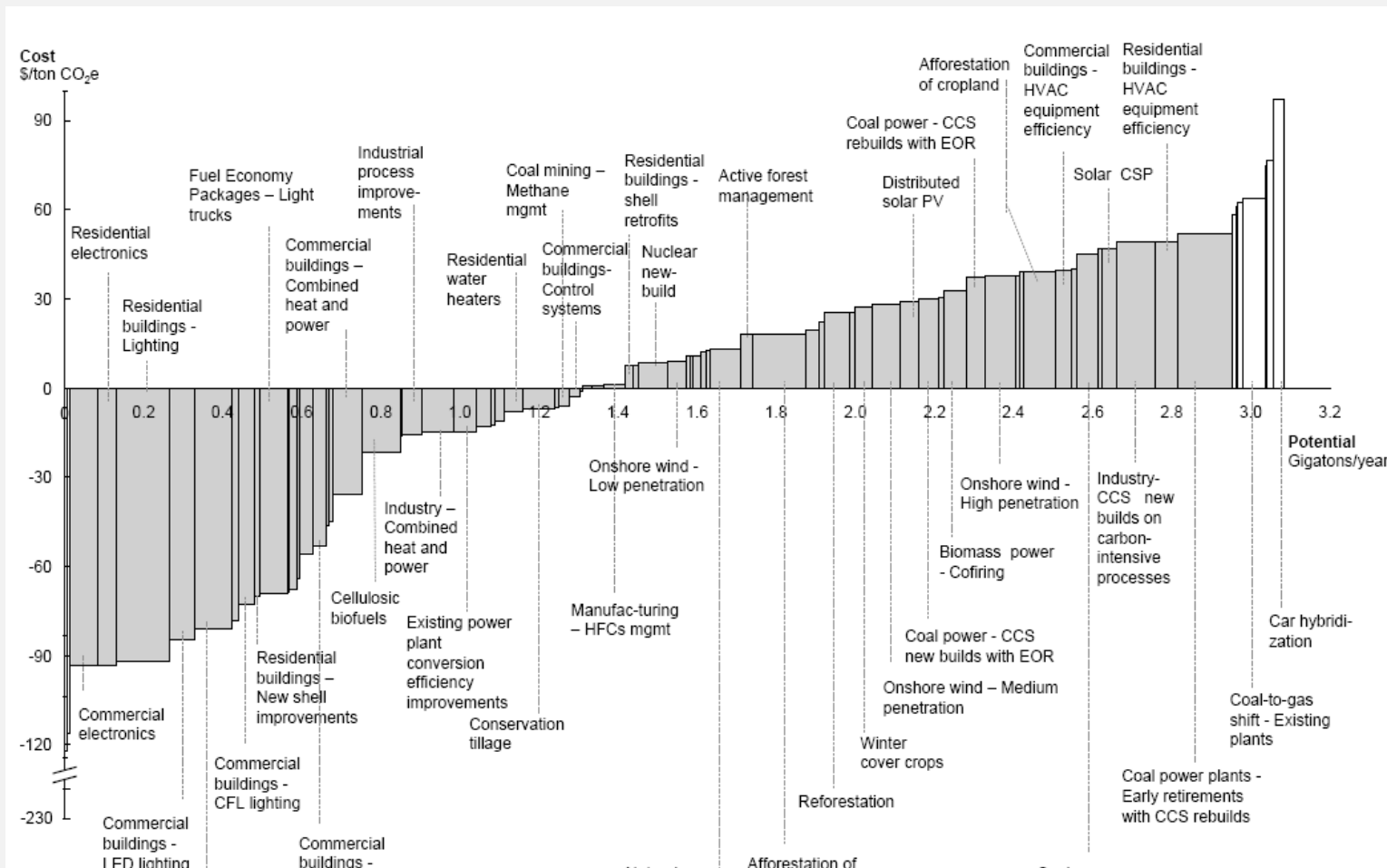
Vir: IEA, World Energy Outlook 2008,

# “Win, Win, Win”, Nina, Greenpeace



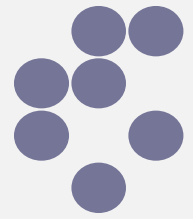
- **Enables shift towards low-carbon society**  
*Energy efficiency is the option which pays off in several aspects.*
- **while creating new and prospective jobs,**  
*Global energy markets for efficient products (technologies, materials and services) are among the fastest growing. In this respect EE enables smooth transition to low carbon economy.*
- **increasing competitiveness**  
*Global fuel costs account 4% of the global GDP.  
Projects are mostly profitable for investor and even more for society.  
Households decrease energy related costs while increase living comfort.  
EE hedge risks related to energy prices.*
- **and energy security.**  
*EE reduces fuel import dependency, reduces economic risks and vulnerability to high and volatile energy prices.*
- **It is a solution for reducing and preventing energy poverty**
- **and the other co-benefits are substantial.**  
*Reduces air pollution and related damage on health.*

# Energy efficiency pays-off



Source: McKinsey Global Institute

# Large Untapped Potential - Challenges



- **Dispersed actors**
  - Investors are dispersed (financial markets)
  - As well producers (in weaker position when participating at decision making processes)
- **High up-front costs - liquidity**
  - **Inefficient solutions enable delay of spending**
  - Solutions with lower social costs avoided due - lack of knowledge /
  - What is IRR for energy efficiency light bulb?/
- **Energy efficiency is “invisible”**
  - Negawatt power – tower/well
  - Needs extra installations/efforts to be promoted
  - “Lack of information” at real estate market etc.
- **Negative incentives and lack of knowledge and skills**
  - At various levels of decision makers (owner tenant problem, public sector, engineers/designers etc.)

# Towards low carbon society



- The development paradigm based on economy of scale has reached its limits – a shift from development based on quantity towards development based on quality is needed
- Weak at valuation of risks
- Demand and supply structure need to be changed
- Redirecting financial flows from large to small investors

# The scale



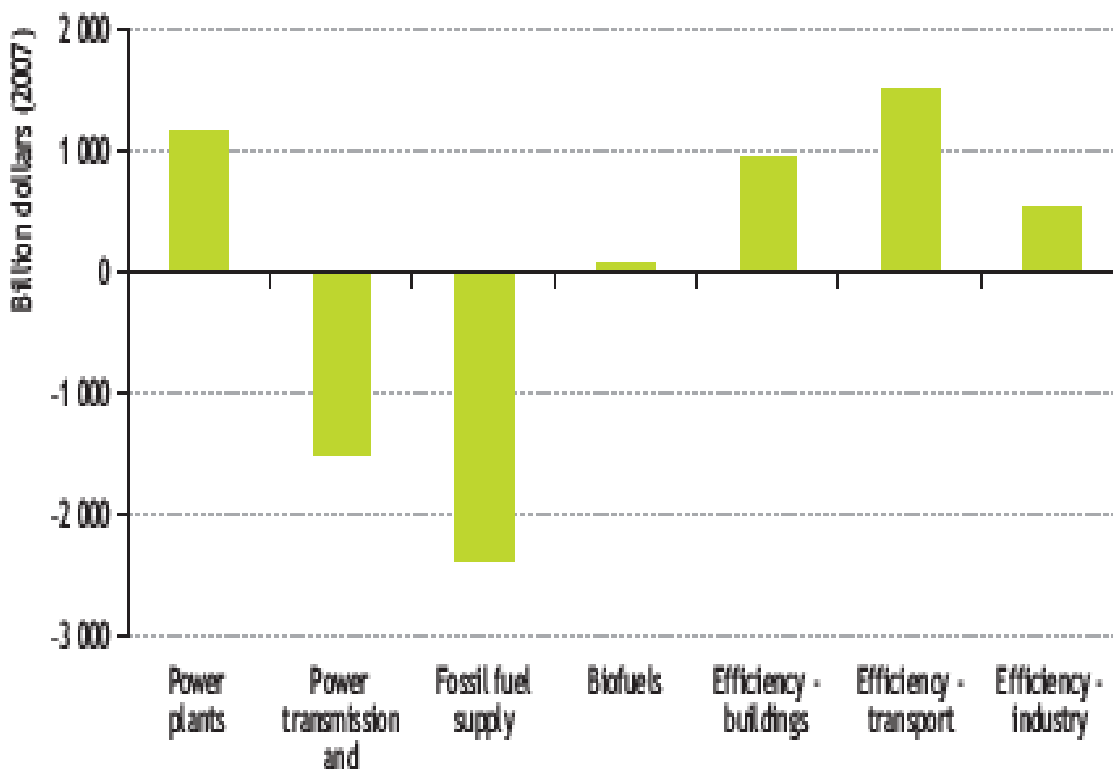
*“Energy efficiency offers a vast, low-cost energy resource to economy – only if we can craft an innovative and comprehensive approach to unlock it. Significant barriers need to be addressed at multiple levels to stimulate demand for energy efficiency and manage its delivery across more than 100 million buildings and literally billions of devices. If executed at scale gross energy saving worth more than \$1,2 trillion, well above \$530 billion needed through 2020 for upfront investment. A program is estimated to reduce 23% of projected demand in 2020.”*

Mc Kinesy, Unlocking energy efficiency in US economy, 2009

# Change in global investment scenario



**Figure 19.1** • Change in total world energy-related investments by sector in the 550 Policy Scenario relative to the Reference Scenario, 2010-2030



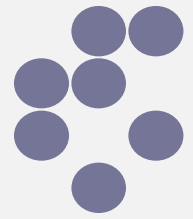


# Global investment and financial flows



Sector	Areas/mitigation measures considered	Global cost (2005 USD billion)	Proportion needed in developing countries (%)
Fossil fuel supply	Lower production due to reduced demand and greater use of biofuels	-59	54
Power supply	Lower fossil-fired generation capacity More renewables Carbon dioxide capture and storage Nuclear energy Hydropower	-7	49
Industry	Greater energy efficiency Carbon dioxide capture and storage Reduced emissions of non-CO <sub>2</sub> gases	36	54
Buildings	Greater energy efficiency	51	28
Transportation	More fuel-efficient vehicles Greater use of biofuels	88	40
Waste	Capture and use of methane from landfills and wastewater plants	1	64
Agriculture	Reduced methane emissions from crops and livestock	35	37
Forestry	Reduced deforestation and forest degradation Sustainable forest management	21	99
Technology research, development and deployment	Double the amount that is currently spent in this area	35-45	
<b>Total net additional investment</b>		<b>200-210</b>	

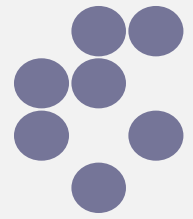
# “Ambitious long term targets are easy and miningless if no short term steps are taken”, EEECE



## Targets and commitments

- **Set binding** target and commitment for **mid-term**: 20% energy efficiency improvement by 2020 –  
Processes:
  - The National energy programme (2010)
  - Revision of The EU Energy Efficiency Action Plan (2010)
- **Ambitious long term** target: 80% by 2050  
 (“easy and miningless if no short term steps are taken”, EEECE)
- Implementation of **short term targets** and related measures (Energy Efficiency Action Plan, Kyoto)

# Transition to low carbon society is first of all an organisational challenge



## **Structural shift**

- In energy sector: from investment at energy producers to investment at energy users
- An urgent need to level playing field:
  - Accurate risk assessment (all levels of DM)
  - Equal conditions for participation at decision making process for small and large actors
  - Internalization of external costs
  - Access to financial markets
  - Quality of public expenditure

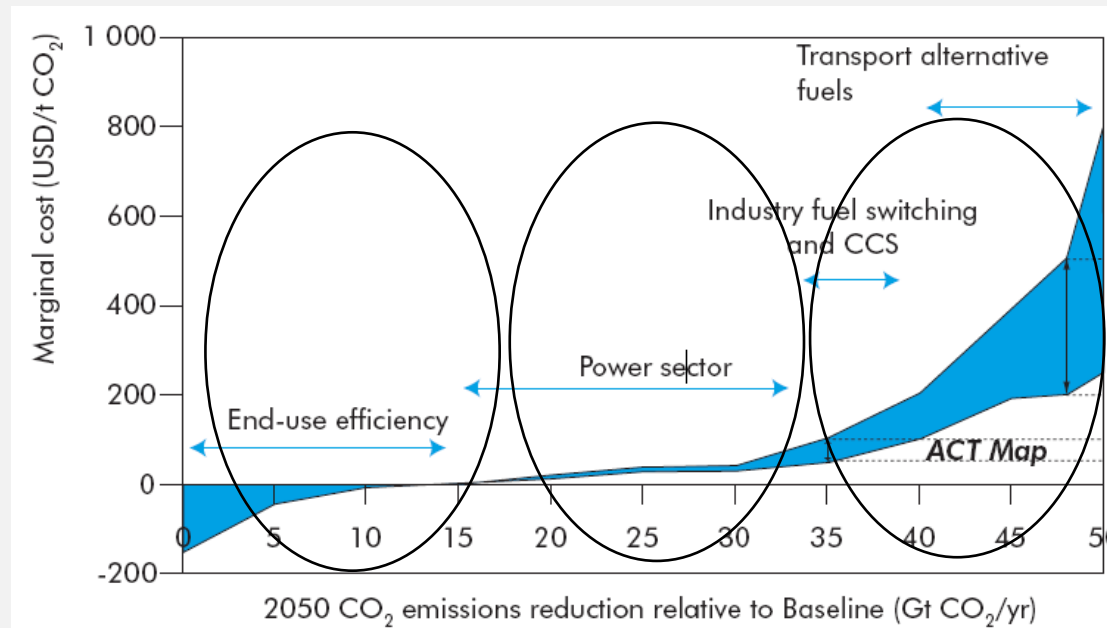
## **Networking of actors/coherent actions**

- e.g.: Technological platforms in the energy efficiency field (there are no technological platforms for EE in EU SET plan); Support for networking and exchange for energy efficiency education and training at EU level

## **Assuring consistency of policies**

- climate change mitigation/adaptation/transport/energy/agriculture/development/fiscal/regional development/cohesion/urban planning/residential etc...
- e.g. money for RES support can not be collected according to consumers pays principle – base on energy use (competition rules vs environmental principles)
- coordination of transition to low carbon society at highest political level
- enhance knowledge, skills and capacities at all levels of D.M.
- systematic analysis of negative incentives & proposals how to remove them

# Incentives



## INSTRUMENTS

**Noneconomic barriers – redirecting financial flows into disperse investment:**

- Standards
- Information/labeling
- Response in related markets: financial, real-estate (demonstration financial mech.)

**Financial incentives**

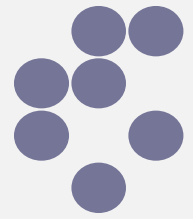
- Carbon pricing
- Venture capital

**R&R**

**Demonstration projects (TECH)**

**Education&Training**

# Assure economy of scale at EE markets



**Need to speed-up and enhance activities already** planned/in preparation - boost EE related markets:

- **New ambitious building code**
- **Green public procurement** for EE (EU: Communication on Public procurement on better environment and energy labelling Directive; SLO: Action plan for GPP; decree under preparation). Need to be extended to any public funding (EU funds, state aid financed project).
- **Minimal energy efficiency standards** - especially in the areas where saving potential is substantial (electric motors etc.)
- **Building energy certificates** – assure asap high quality information at real estate markets

# Enhance skills/enable change in labour market



- **Enhance skills to enable expansion of business opportunities:**  
services/products/technologies
  - In industry and building sector: R&R and innovation, multidisciplinary teams for development) EE products/technologies/services
  - Financial markets (For market penetration EE measures requires new products at financial markets suitable for distributed investments at end users; EE measures needs better and more accurate risk assessment)
  - Policy makers (consistency of policies)
- **Education and training to enhance implementation of measures/technologies:**
  - Enabling expansion of service palette by energy efficiency programmes/measures energy distributors, DSO and retail energy sales (Actors under art. 6 Directive 06/32/ES, Article 66b – Energy law)
  - Engineers/designers/supervisors (quality management)
  - Energy managers in industry, buildings managers (including public buildings)
  - Officials (public procurement, state aid rules, EU funds rules, for energy poverty related programmes)
  - Salesman, builders, fitters
  - other
- **Promotion**
  - General public, young population
  - Decision makers at various levels

# Strong focus on implementation of policies and measures



## **SLO and EU in its policy should:**

- set EE and RES as the first priority new development paradigm
- recognise that EE and RES pays-off in several aspects and it enables smooth of transition to low carbon economy
- assure equitable conditions for small and large actors to enable development of EE and RES markets
- set ambitious binding long term EE targets
- focus most of the efforts to short term steps and actions
- assure enabling environment needed to establish networks of partners necessary for various EE business initiatives
- assure economy of scale for EE and RES services and technologies
- put emphasis on upgrading skills in EE and RES needed for changes in labour market
- assure quality in public procurement
- direct changes needed in financial markets for promotion of energy efficiency
- coordinate transition to low carbon economy and recovery of economy



“... assuring the conditions for secure and reliable supplying of users with **energy services** according to market principles and the principles of sustainable development and considering efficient use of energy, the economic use of renewable energy sources and conditions of environmental protection...”  
(*Energy law, RS 1999*)

# Thank you for attention!

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