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MINISTRSTVO ZA INFRASTRUKTURO IN PROSTOR

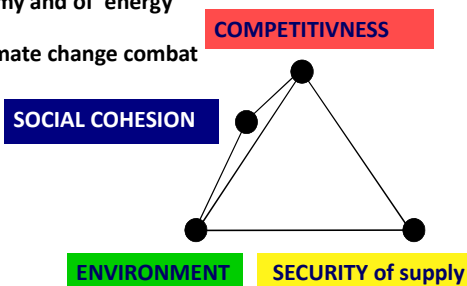
Energy Policy of Slovenia in relation to objectives in the field of RES and Energy Efficiency

Ministry of Infrastructure and Spatial Planning

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SI Alpine Convention contact point
Bern, 2013

General objectives of the Slovenian Energy Programme (EPS)

- Security of energy supply and security of energy services
- Competitiveness of the society, economy and of energy supply and energy services
- Environmental Sustainability and climate change combat
- Social Cohesion



Bases in:

- *Energy Act*
- *National Energy Programme (2004)*
- *Public consultation of the Green Book for EPS*
- *Spatial Development Strategy of Slovenia*
- *Other Slovenian strategic documents and EU, Council of EU etc.*

Priority areas EPS

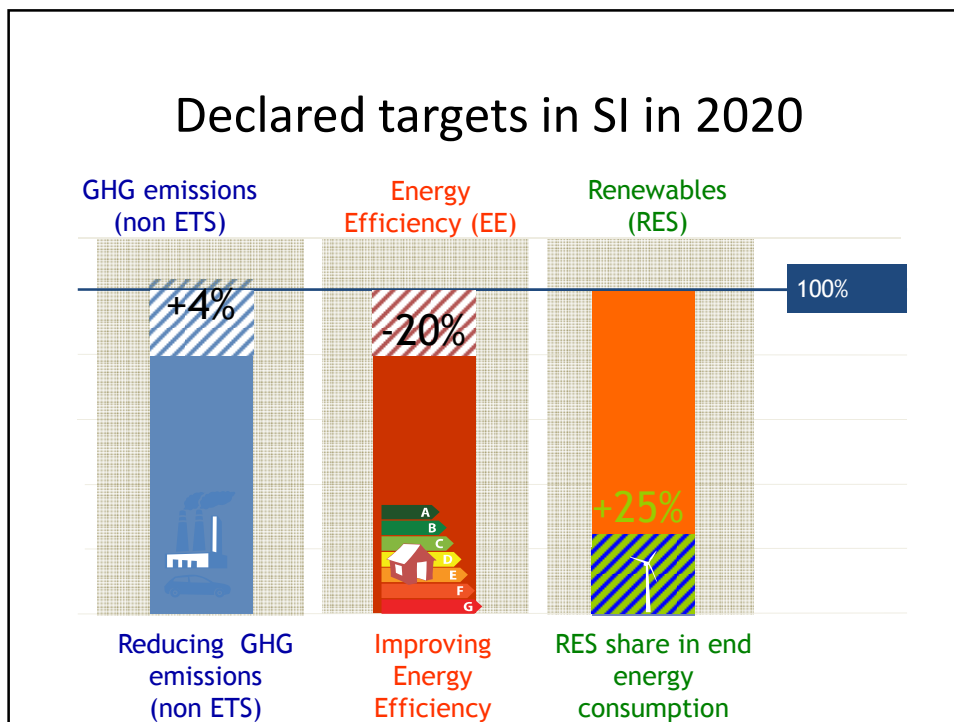
- Energy Efficiency (EE)
- Increased use of RES
- Electricity distribution network development with introduction of active networks

Due to the benefits, obligations and opportunities for boosting economy



Objectives of EPS

- **Improvement of strategic and operational security of supply:**
 - Decreasing the import dependency in all scenarios
 - Sustaining diversification of the energy sources supply and for electricity production and increase of electricity production coverage in Slovenia
 - Better performance in all indicators of operational liability of electricity supply, increase of production capacities and reserves within the country
- **Retain competitiveness in comparison to neighboring markets:**
 - Decreasing energy intensity
 - Change of instructure of energy expenses – increase investment and decrease of gasoline and emission expenses
 - Retaining the competitiveness of electricity production



Expected effects of EPS

Reducing the emissions:
Change of trend from constant growth towards long term GHG emission reduction

Higher energy efficiency:
Low growth of end energy use (without transport – decreasing for 7% by 2020 and zero growth by 2030)
Moderate growth of electricity use and higher efficiency of transformations

Higher share of RES
For 60% in comparison of current use; hydroenergy and wood-biomass count for 95%, other RES will have 35% among RES

Strategies and scenarios of EPS

Two strategies for RES and EE, cogeneration and local energy supply:

- **reference:** urgent measures for fulfillments of objectives
- **intensive:** active policy measures

Three scenarios:

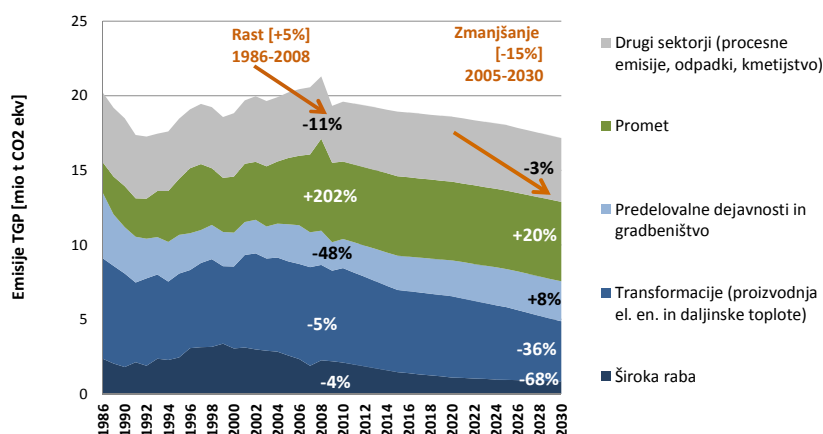
- **Baseline scenario:** renovation of existing energy production
- **Nuclear scenario** (upgrading the baseline): long term use of nuclear energy
- **Natural Gas scenario:**(upgrading the baseline): additional diversification of sources

One scenario to be chosen as a basis for new EPS (2014)



Energija		Hladnik	
Protizvajalec	Logo	ASBC	150
Model			
Manjša poraba energije		A	
Veča poraba energije		XYZ	
Poraba energije kWh/letno		XYZ	
Procentna zmanjšanja dele v 1		XZ	
Hrup (dB(A) m 1pW)			

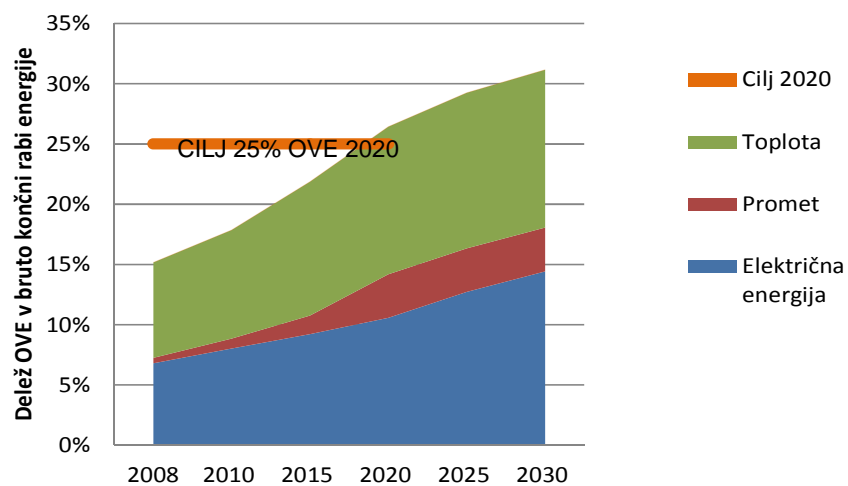
GHG emissions by sectors



Vir: US CEU, 2011

All emissions, also outside the energy sector

RES share target

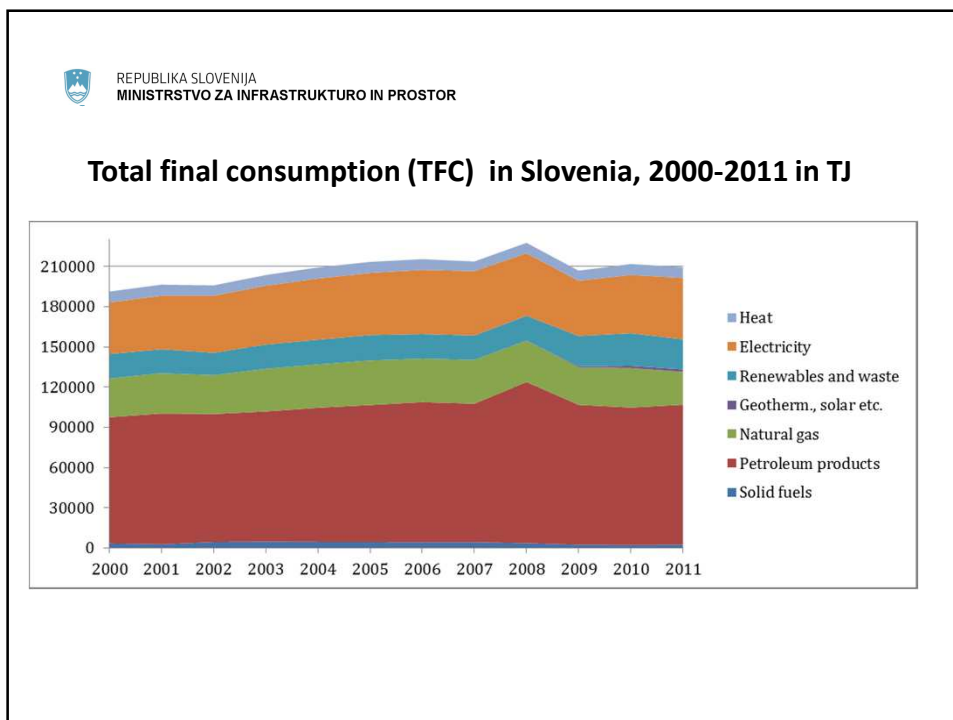
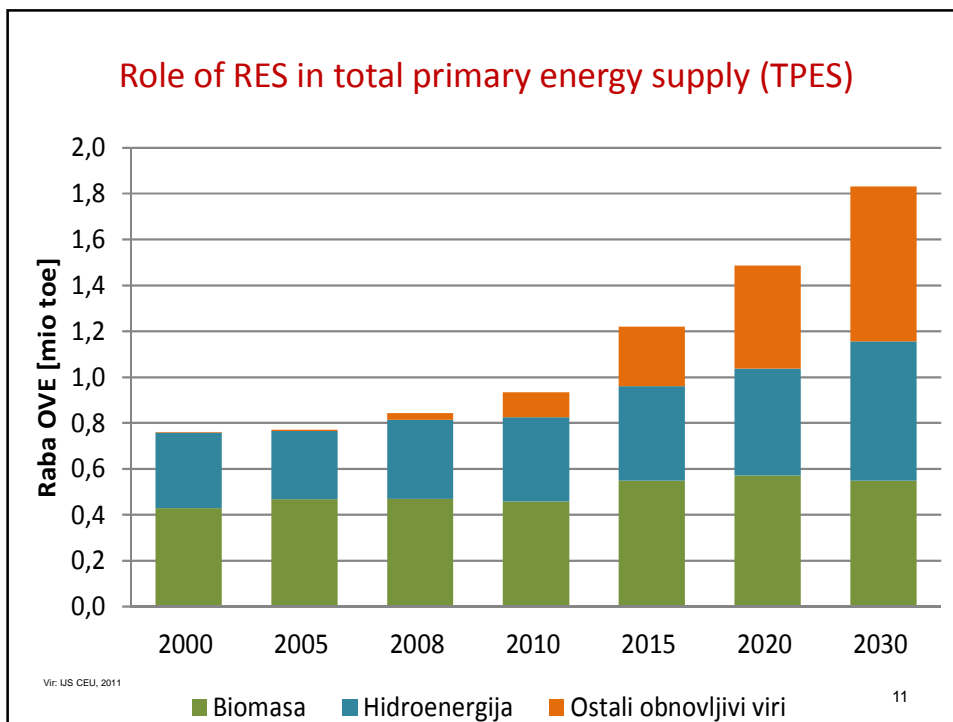


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RES Targets by sectors by 2020

Sectoral targets [%]	2005	2009	2010	2011	2012	2015	2020
	realization data				projections RES AP		
RES - Heating & cooling	19,0	25,2	26,4	27,3	24,4	27,3	30,8
RES - Electricity	28,7	33,8	32,2	30,8	31,1	35,4	39,3
RES - Transport	0,3	2,0	2,8	2,1	3,1	4,7	10,5
TOTAL - RES share	16,1	19,1	19,7	18,9	18,7	21,2	25,3

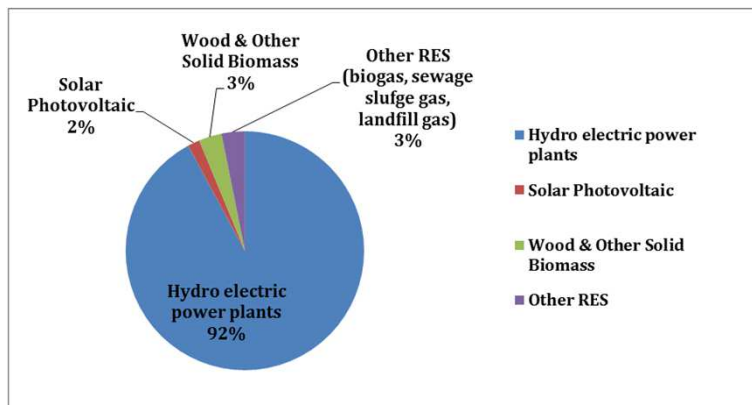
Vir: AN OVE (2010).



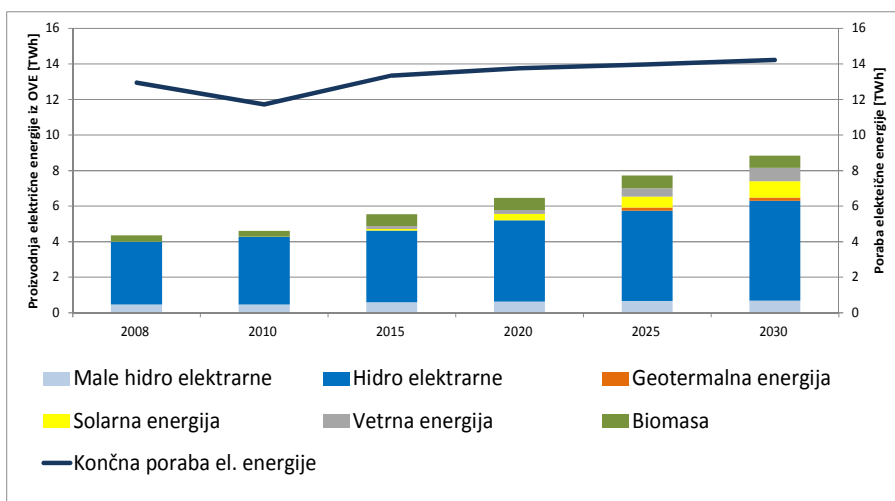


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Electricity generation from RES in 2011 (%)



Role of RES in electricity production





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Electricity production from RES in 2030

1/3 of all RES from big hydro electricity power plants in 2030

	Production 2030 [GWh]	Growth 2008-2030	Share in total use of electricity 2030
Hydro PP (bigger – above 10 MW)	5620	+58%	34,3%
Small hydro PP	684	+50%	4,2%
Wind PP	753	∞	4,5%
Solar PP	914	+390%	5,6%
Other sources	857	+150%	5,2%

Vir: Intenzivni scenarij Osnutka NEP



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Targets for EE in EPS for 2020

- > Improving EE for 20 %
- > Reducing of end energy use (without transport) for 7% in comparison to 2008
- > Growth of end use of electricity to no more than 5% in comparison to 2008
- > 100% share of zero energy buildings among new and renovated buildings by 2020 and in public sector by 2018 (EE Directive)
- > Ensuring 3% of renovated buildings in public sector by 2014 (EE Directive)



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Results of EE Action plan 1

Energy savings	Target		achieved	
	[GWh]	[%]	[GWh]	[%]
End energy savings 2008 – 2016	4.273	9		
Intermediate end energy saving by 2010	1.187	2,5	1.317	2,8
- Savings 2008 – 2010			1.097	2,3
- Early activites (1995-2007)			220	0,5

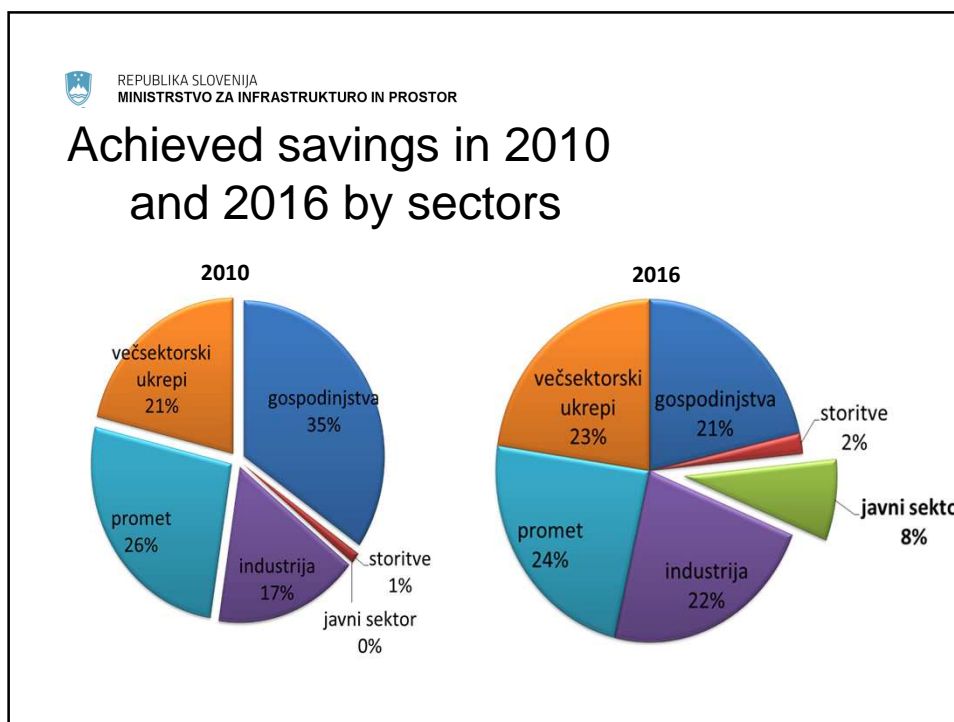
- Industry: method used for savings calculation „top-down“based on statistical data
- households and tertiary sector – evaluated on the bases of implemented measures



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Implementing EE Action plan 2

- In 2016 decrease in use of energy for 4.273 GWh
 - means less expenses for eneregy use on yearly base – for **500 mio EUR**
- Approximantely **3.000** direct jobs for implementing measures and investments + indirect jobs



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EE Measures in households, supported by SI ECOFUND

*The numbers: number of the households X number of finished measures for particular households

25 million EUR for EE use in 2012 by SI ECOFUND

realisation	*Number of households X measures	
	One/two family houses	Apartment houses
2008	916	0
2009	5.840	618
2010	7.385	4.755
2011	11.618	14.022
2012	15.250	14.813
2008-2012	41.009	34.208
Plan	One/two family houses	Apartment houses
Plan for 2013	14000	12000
Realisation 1-5 2013	6319	5527
Total 2008-5/2013	47.328	39.735
Target 2020	120000	120000
Target 2020	161.009	154.208



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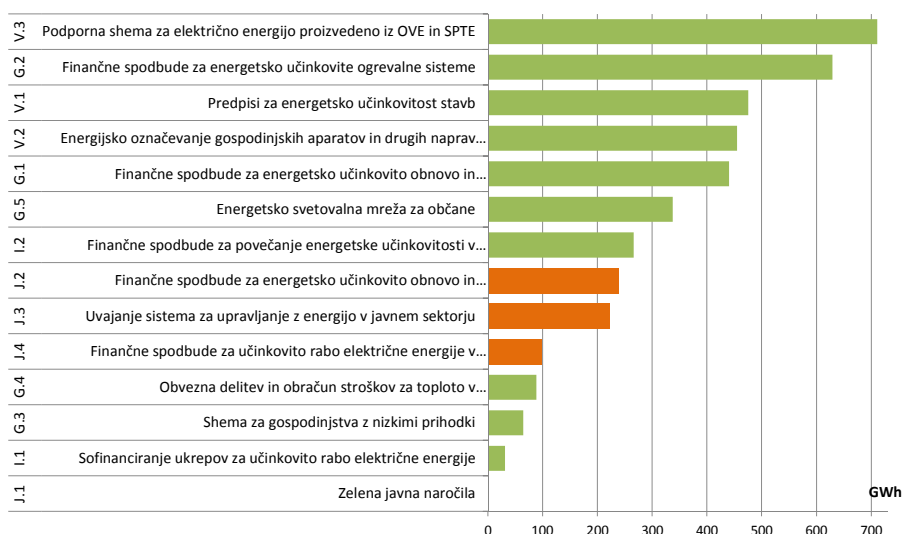
Changes in EE Action plan 2

- Financial frame doubled in comparison to EE Action plan 1 due to new EE in buildings Directive and demanding targets in the field of RES within EE Action plan 2.
- Measure for combating energy poverty was improved
- Enhanced measures in industry in the field of energy audits and feasibility studies and promotion of new product development for EE
- Due to EE Directive the energy companies will need to increase energy savings at the level of end users from 1 to 1,5%
- Fostering of measures in public sector (where the biggest delays are) in:
 - energy saving through energy contracting in the framework of PPP
 - promoting energy audits in state owned buildings and systems for energy management
 - Setting up a public buildings energy use register
- Energy efficient spatial planning (legislative adaptation needed, guidelines for planners, urban planners, infrastructure for electric vehicles)



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Expected Energy savings in 2016 (in GWh)





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Energy efficient spatial planning

- Legislative adaptation foreseen
- Preparation of planning and technical guidelines for spatial and urban planners
- Legislative proposals for stimulating setting up infrastructure for electric vehicles

Local energy concepts:

- Responsibility of Directorate for Energy on the basis of Energy Act
- Compulsory for municipalities → prepared for single or more municipalities
- Using targets from EE Action plan 2 at local level
- Thorough analysis of local energy supply, possible EE improvements in different sectors
- concrete proposals for improvements
- → inputs for local spatial plans
- → proposals for different energy projects



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Sustainable Transport plans

- Responsibility of Directorate for transport
- Promoting integrated approach – involvement of different sectors, stakeholders, awareness raising...
 - Not only bigger cities (Ljubljana – 100 000 daily commuters), also small cities in rural area (use of public transport more difficult)
- → inputs for local spatial plans: improving organization of transport in urban area and in inner cities
- → proposals for different energy projects in urban areas



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Benefits of EE policy

- Reducing of household expenses
- Reducing energy poverty
- Reducing public spending / expenses of public sector
- Investments in construction sector (energy improvements in buildings - refurbishment) have multiplicative effect in economy
- Involve mainly SMS in construction sector
- Investments in EE mean 3-4 times more employment than investments in energy supply
- Measures in EE supported by the EU finances – meaning „cheaper“ measures
- Represents the highest potential for reducing GHG emissions and the cheapest way of their reduction
- Reducing the import of fossil energy sources
- Technologies and innovative solutions in the direction of EE → business opportunities already now, more so in the future
- Visible benefits of integrated approach to spatial and urban development

HVALA ZA POZORNOST!

Thank you!

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