



Energy Efficiency in Serbia

MINISTRY OF MINING AND ENERGY

Antonela Solujić, Head of Department for Energy Efficiency

10th SEED, 14 JUNE 2017, Belgrade

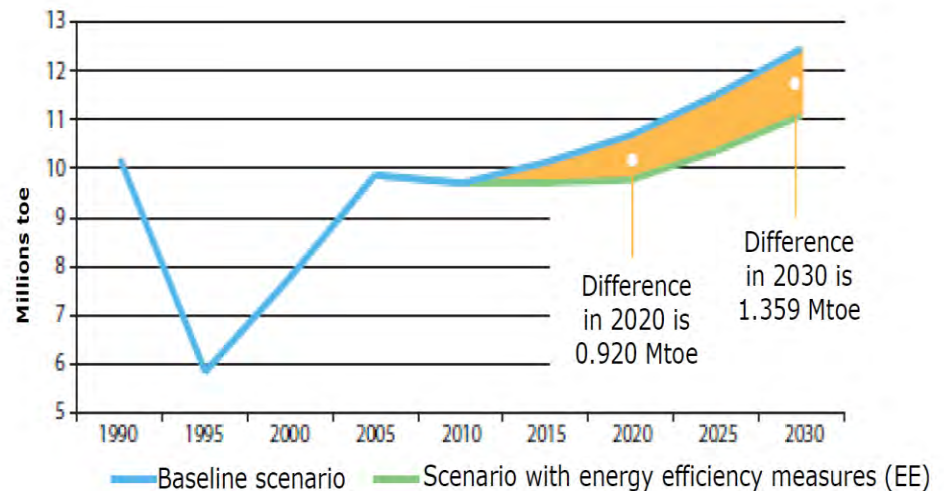
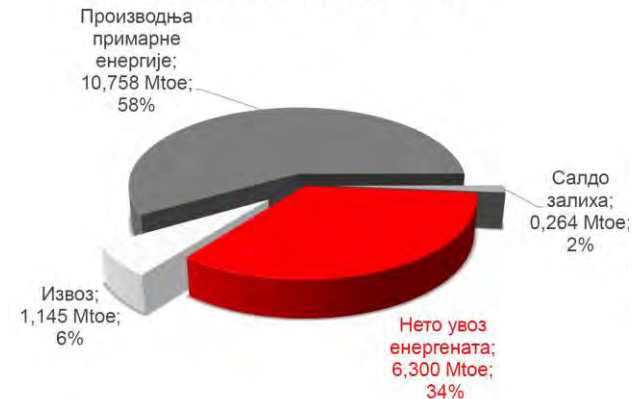


Energy Sector in Republic of Serbia

Energy Efficiency

- Large dependency on the imported energy: **30%**
- Energy intensity in Serbia: **2-3** times higher than in neighbouring EU countries and **4-5** times higher than “old” EU member states
- Large **GHG emissions** in the energy sector: **76%**
- Commitment of the Republic of Serbia
 - Sustainable Development
 - International obligations
 - Energy Community: the application of the Directives in the field of energy efficiency

Биланс примарне енергије РС за
2015. годину, 17,322 Mtoe





Energy efficiency is an important element of the energy policy of the Republic of Serbia



Regulatory Framework in Republic of Serbia

- Law on Efficient Use of Energy („OG RS“, no 25/2013),
 - NEEAP
 - Energy Management System
 - Budgetary fund for EE
 - ESCO
 - Labeling of products ...
- Law on Construction and Planning ("RS Official Gazette" no. 72/09, 81/09 – correction, 64/10-US and 24/11)
 - 2011, 2012 - Rulebook
 - Rulebook on energy efficiency of buildings ("RS Official Gazette" no. 61/2011)
 - Rulebook on the conditions, content and manner of issuance of certificates of energy performance of buildings ("RS Official Gazette", no. 69/2012)
 - 2014 - Central Registry of Energy Passports

ЗГРАДА		<input type="checkbox"/> нова	<input checked="" type="checkbox"/> постојећа
	Категорија зграде	1 Зграда са једним станом 2 Зграда са више станова	
	Место, адреса:		
	Катастарска парцела:		
	Власник/инвеститор/правни заступник:		
	Извођач:		
	Година изградње:		
	Година реконструкције/ енергетске санације:		
Нето површина A_v [m ²]			
Енергетски пасош за стамбене зграде	Прорачун	$Q_{изд.пр}$ [%]	$Q_{изд.пр}$ [kWh/(m ² а)]
		45	34
	A+	≤ 15	
	A	≤ 25	
	B	≤ 50	
	C	≤ 100	
	D	≤ 150	
	E	≤ 200	
	F	≤ 250	
	G	> 250	
Подаци о лицу које је издало енергетски пасош			
Овашљена организација:			
Потпис овлашћеног лица и печат организације:			
_____ М.П.			
(потпис)			
Одговорни инжењер:			
Потпис и печат одговорног инжењера ЕЕ:			
_____ М.П.			
(потпис)			
Број пасоша:			
Датум издавања/рок важења:			



Targets for Serbia by 2018.

1. NEEAP 2010-2012:

- **Overall target: 9%** savings by **2018** in comparison with 2008 (**0,7524 Mtoe**)
- Goal for the period **2010-2012: 1,5%** savings in comparison with 2008 (**0,1254 Mtoe**)

2. NEEAP 2013-2015:

- Goal for the period **2013-2015 3,5%** savings in comparison with 2008 (0,2952 Mtoe)

3. NEEAP 2016-2018:

- Goal for the period **2016-2018: 4,6%** savings in comparison with 2008 (0,3824 Mtoe)



Targets Energy Community – EED 2020

➤ Article 3

- Primary Energy cap consumption: 187 mil toe
- Final Energy cap consumption: 133 mil toe

➤ Article 5

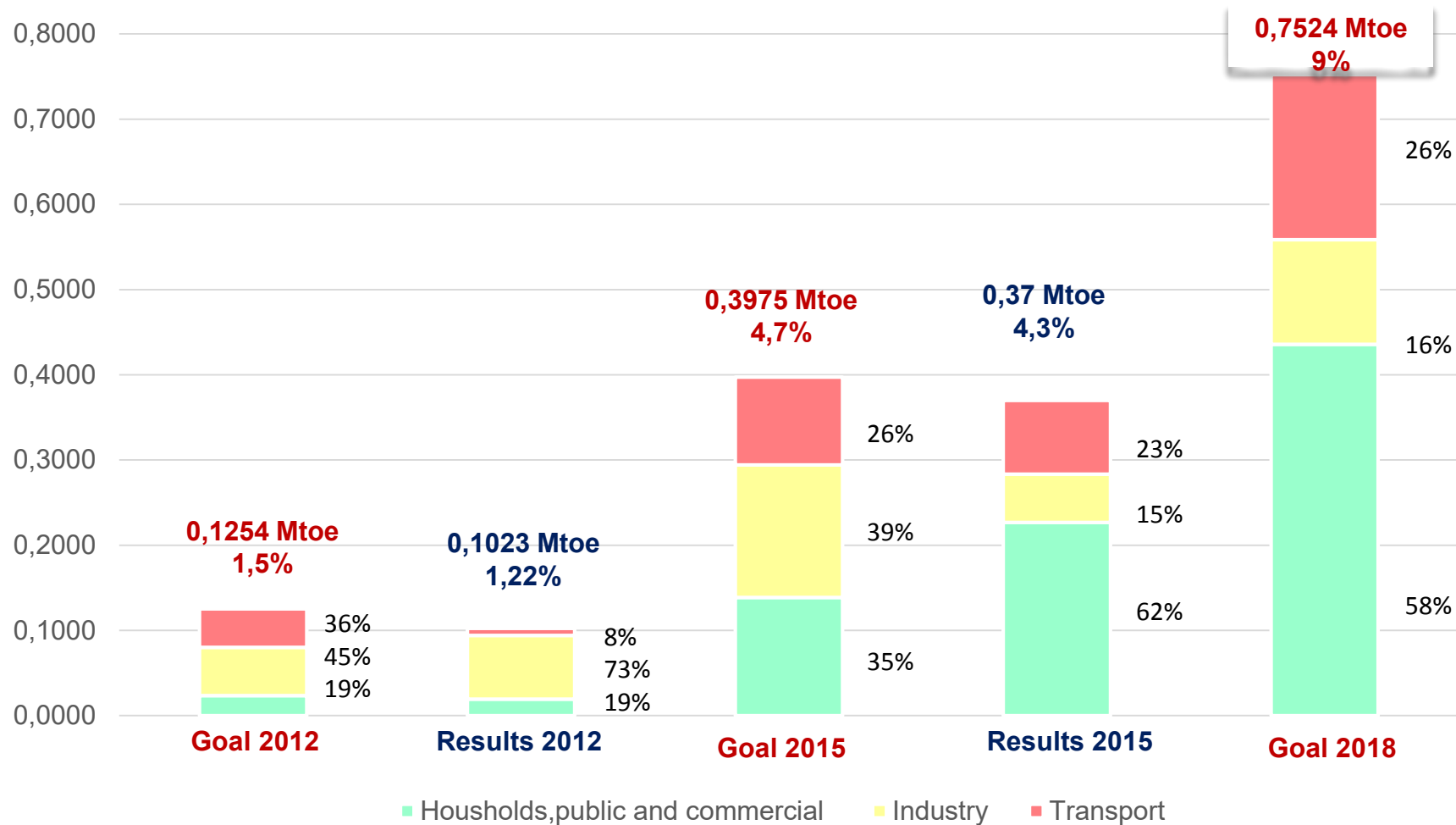
- EE improvement of 1% of total floor area of heated/cooled of Central Governmental Building

➤ Article 7

- savings of 0,7 % of the annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent three-year period prior to 1 January 2016 – cumulative target > 300.000 toe by 2020



Goals and savings





Measures with biggest effects in 2015

No.	Title of the measures	Achieved savings in 2014	Expected savings in 2018	Share of the measure savings in the sectoral goal in 2018	Share of the measure savings in the overall goal in 2018	Monitoring methodology
		[Mtoe]	[Mtoe]	%	%	
HH3	Promotion of EE appliances in households	0,0525	0,1169	26% HHPC	15%	TD
HH2	New EE regulation in building sector and certification – households sector	0,0565	0,1021	23% HHPC	13%	TD
PC2	New EE regulation in building sector and certification – public and commercial sectors	0,0752	0,0819	19% HHPC	11%	TD/BU
T9	Modernization of the fleet in order to meet technical requirements to perform domestic and international transport	0,0455	0,0819	42%	11%	BU
I2	Program of promotion of EE in industry	0,0435	0,0726	59%	10%	BU
I1	Implementation of EC 443/2009 requirement regarding reduction of CO2 emissions of new	0,0266	0,0599	31%	8%	BU

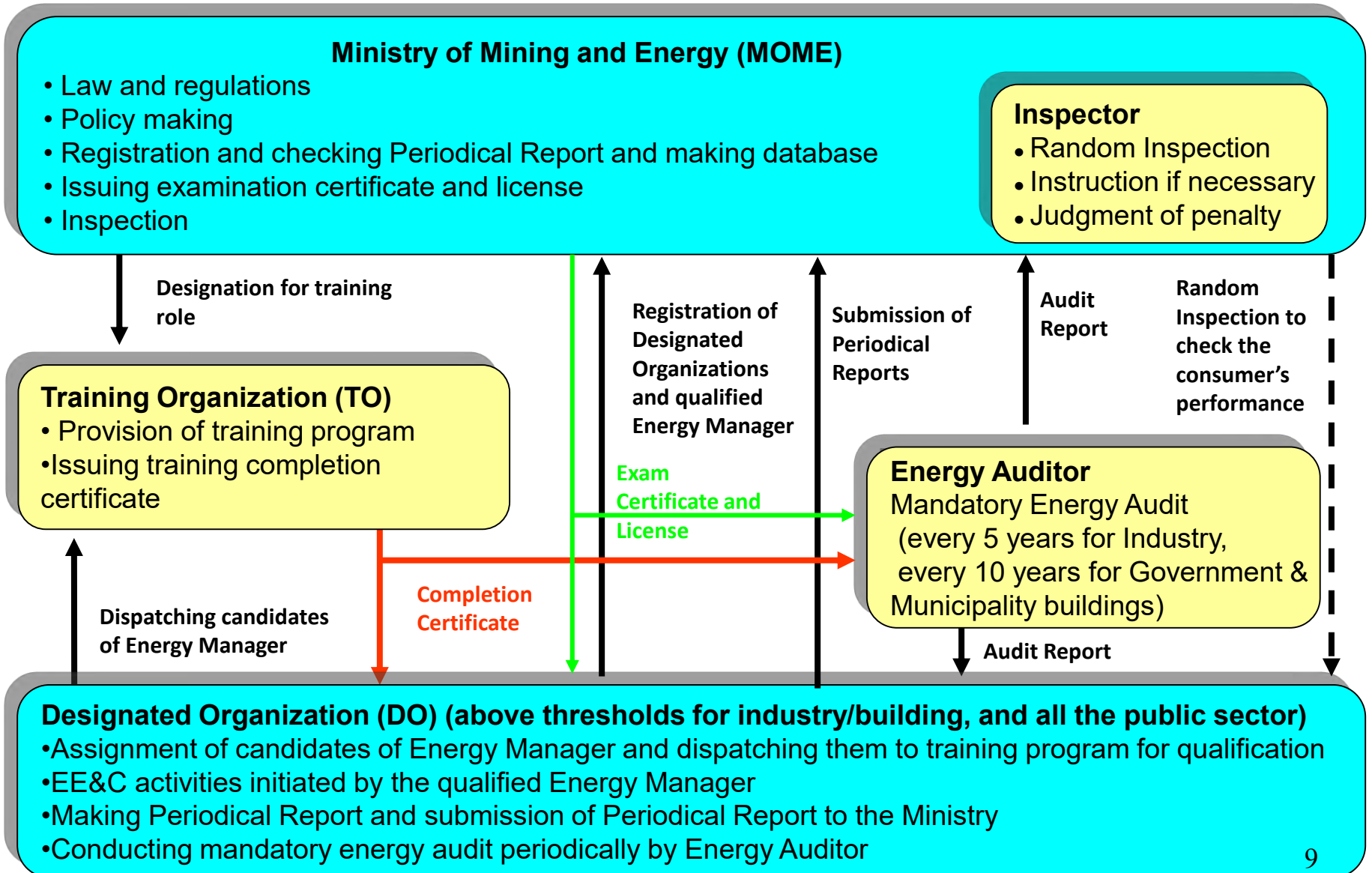


Measures expected to give significant EE saving in 2018

Бр.	Title of the measures	Expected savings in 2018.	Share of the measure savings in the sectoral goal by 2018	Share of the measure savings in the overall goal in 2018	Monitoring methodology
		[Mtoe]	%	%	
I1	Introduction of EMS system for big consumers from Industry sector	0,0369	30%	5%	BU
PC4	Introduction of EMS system for public and commercial buildings.	0,0130	3% од ДЈК	1,8%	BU
I3	FIT in for Industry	0,0132	11%	1,8%	BU



Framework of Energy Management System EMS





EMS training facility

➤ *Training Organization* *Mechanical Faculty Belgrade*

- JICA project: equipment for practical training
- Trainings held: Mun 2, Ind 3, Buildings 1
- Examination: Mun 2, ind 2, Buildings 1

➤ *Licenses*

- Municipalities 48/62
- Industry 42/84

➤ *Appointment of EM*

- **Municip 9** – Veliko Gradiste, Kragujevac, Paracin и Velika Plana ...
- **Industry 6** - Hemofarm ad Vrsac, EPS – Kostolac ...





Database for energy audits and energy management – SEM– Norwegian donation

Званична презентација Министарства
Корисник: Војислава Сатрић

Република Србија
МИНИСТАРСТВО РУДАРСТВА И ЕНЕРГЕТИКЕ

База података за енергетске прегледе и систем енергетског менаџмента

Почетна | Обуке и испити | Годишњи извештаји | Енергетски прегледи | Регистри | Аналитички извештаји | Администрација

Регистри лиценци физичких лица
Лиценце за обављање послова енергетског менаџера и овлашћеног енергетског саветника, издаје Министарство, односно Министар.

Регистар лиценци енергетских менаџера.
Регистар лиценци овлашћених енергетских саветника.

Регистар овлашћења правних лица
Овлашћења, за правна лица, за обављање послова овлашћеног енергетског саветника, издаје Министарство, односно Министар.

Регистар овлашћених енергетских саветника правних лица.

- SEM Reporting system
- Energy Audits

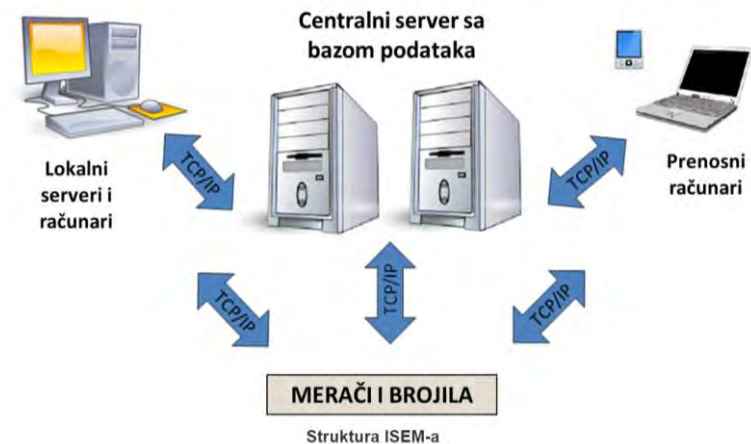
EMC data bases

Information system for energy management -UNDP

Dobrodošli u
INFORMACIONI SISTEM ZA ENERGETSKI
MENADŽMENT

Koristi:
Šifra:

Систем енергетског менаџмента у општинама
25 years get
Република Србија Министарство рударства и енергетике
UNDP

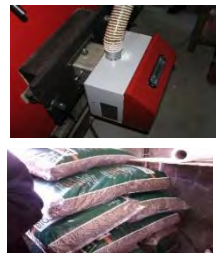


- Monitoring of energy consumption in public buildings



Budgetary Fund for EE

- Established based on Law on Efficient Use of Energy - Budget line at Ministry of Mining and Energy
- Started with its operation in 2014
- Operates based on the
 - Rulebook prescribing procedures for allocation of funds
 - Annual program approved by Government yearly
- Award procedure: public call
 - Eligible beneficiaries: physical and legal persons
- Limited funds: 1,2 mill EUR/year
- In 2016 donation from GEF/UNDP 500.000 USD
- So far implemented 3 public calls for Municipalities
 - **39 contracts, energy saving around 9,4 kWh (40%),**
 - **CO2 reduction 4150 t/year.**
 - **Total investment 415 mil RSD, BF 230 mil RSD**



Ljubovija - PC 2014



Babusnica - PC 2014



Thank you for your attention