Ministry of infrastructure and energy
Republic of Serbia

JICA TRAINING AND DIALOG PROGRAMS

ENERGY POLICY (B)

Country Report – Republic of Serbia, Jun 2012

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June 2012, Tokyo

Overview of Presentation

1. Gratitude for help to people of Japan
2. General information of Serbia
3. Basic Structure of Serbian Energy Sector
4. Legislative framework
5. Energy policy, goals of policy
6. Barriers in energy sectors
7. Next steps

Ministry of infrastructure and energy
Republic of Serbia

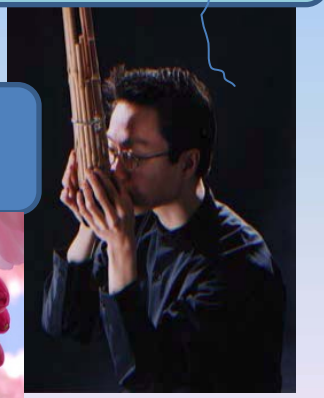
Life

Public transport

THANK FOR ALL SUPPORT!!!

Health

Culture



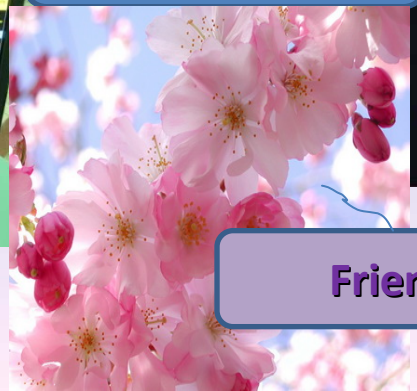
Education

Environment

Utilities

Energy sector

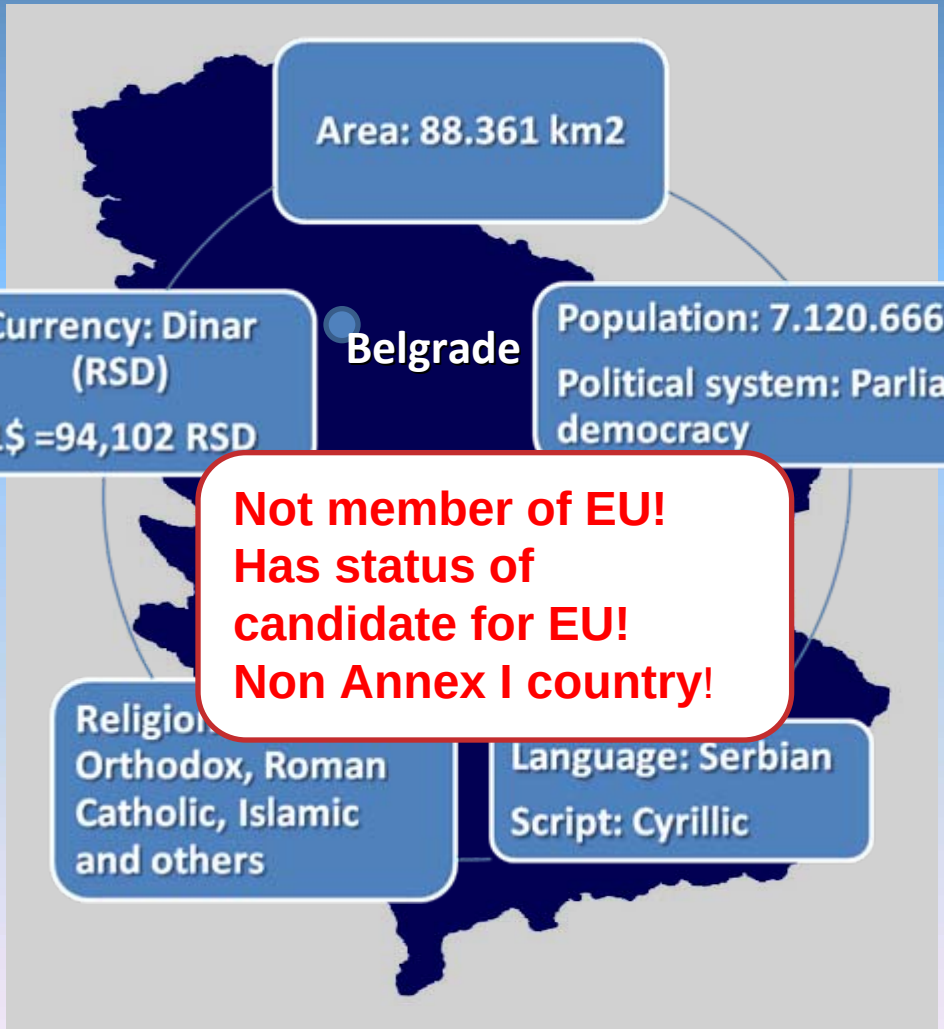
Social care area



Friendship

Where Serbia is?

Serbia in numbers



Macroeconomic data

Average GDP growth in the period 2001-2007 - 5.6% per annum

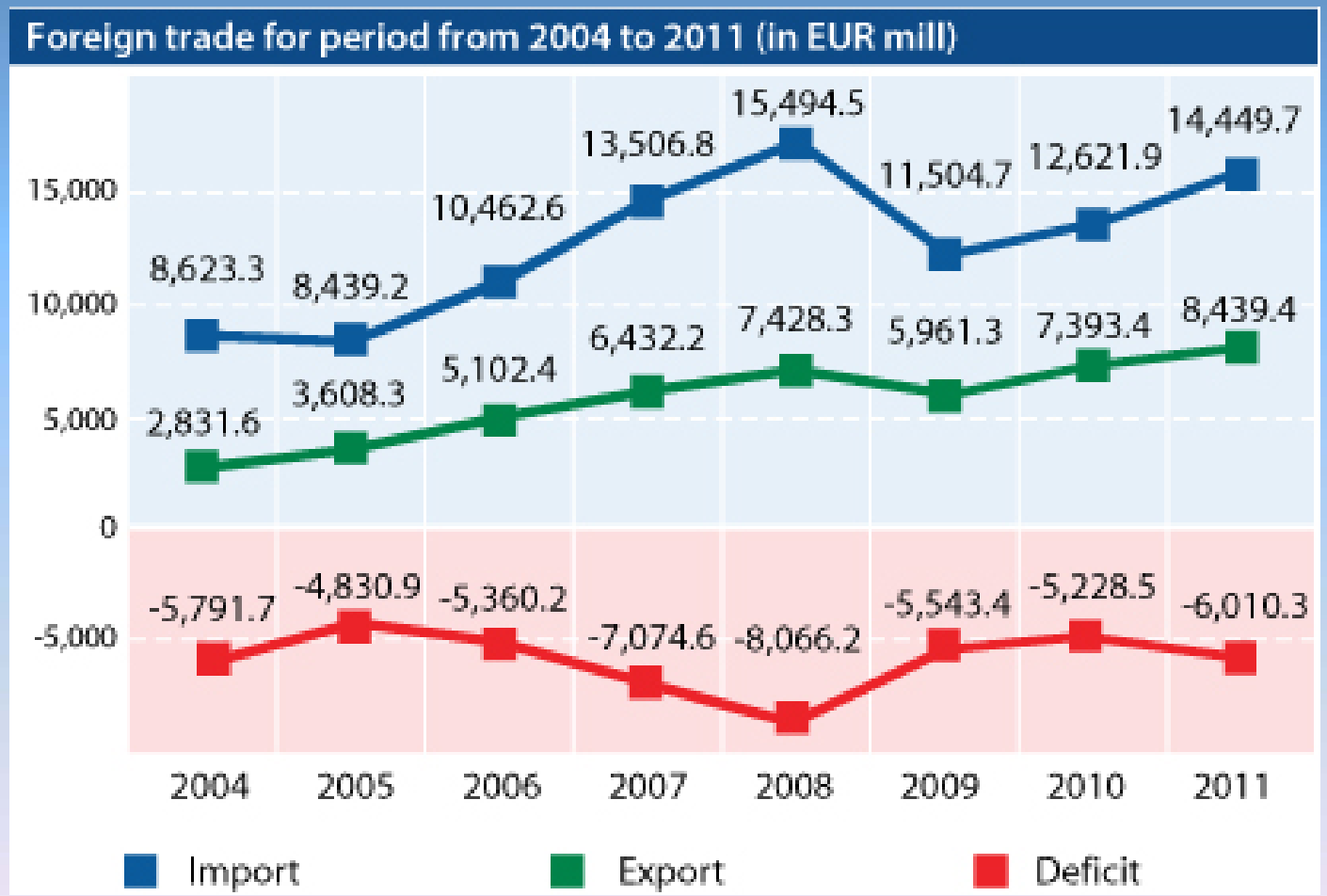
1 EUR = 1.24$

	2007	2008	2009	2010	2011
Gross domestic product *in millions EUR*	28,47	32,66	28,88	28,98	32,21
Gross domestic product *per capita, EUR*	3,856	4,444.5	3,945.4	3,966.9	4,426
Gross domestic product *real growth, in %*	6,9	5,5	-3,5	1,1	3,4
					(jan.-june)
Export of goods *in millions EUR*	6,432	7,428	5,962	7,339	4,117
Import of goods	13,507	15,495	11,157	12,621	6,891
Foreign direct investments *net,in million EUR*	1,821	1,824	1,373	860	486
Foreign currency reserves *in million EUR*	9,660	8,190	10,602	10,002	9,967
Value of USD against dinar	53.73	62.90	66.73	79.28	70.64
Value of EUR against dinar	79.24	88.60	95.89	105.50	102.46
Unemployment level *end of period (thousands)*	785	728	730	730	756
Unemployment rate	18,8	14,4	16,9	20,0	22,9

Source: Ministry of Finance

2011- estimated values

Foreign trade data



Data Source: SIEPA

Basic Structure of Serbian Energy Sector

ELECTRICAL POWER

Thermal power plants
Hydropower plants
Combined Heat and Power Plats (CHP)

DISTRICT HEATING SYSTEM

(In 58 cities of Serbia)

THE INDUSTRIAL ENERGY SYSTEM

(Includes heating sources)

Basic Structure of Serbian Energy Sector

NATURAL GAS

OIL

COAL

RENEWABLE ENERGY SOURCE

Basic Structure of Serbian Energy Sector Part two

Consists of:

- **ELECTRIC POWER** subsector, that includes:
  - Power sources – mining
  - Power stations
    - Thermal power plants
    - Hydropower plants
    - Combined Heat and Power Plats (CHP)
  - Grid connections
    - Power transmission system
    - Power distribution system

- **NATURAL GAS** subsector
  - Import of natural gas,
  - Extraction of the domestic natural gas reserves,
  - Collection of natural gas,
  - Transport and distribution to the end consumers

- **OIL** subsector
  - Import, transportation and refining the crude oil and oil derivate
  - extraction of domestic oil reserves,
  - distribution and sale/export of oil derivate.

- **COAL** subsector, within which coal extraction and processing is performed from the open pit mines, from underground excavation mines, as well as the excavation of lignite from the underwater mines.

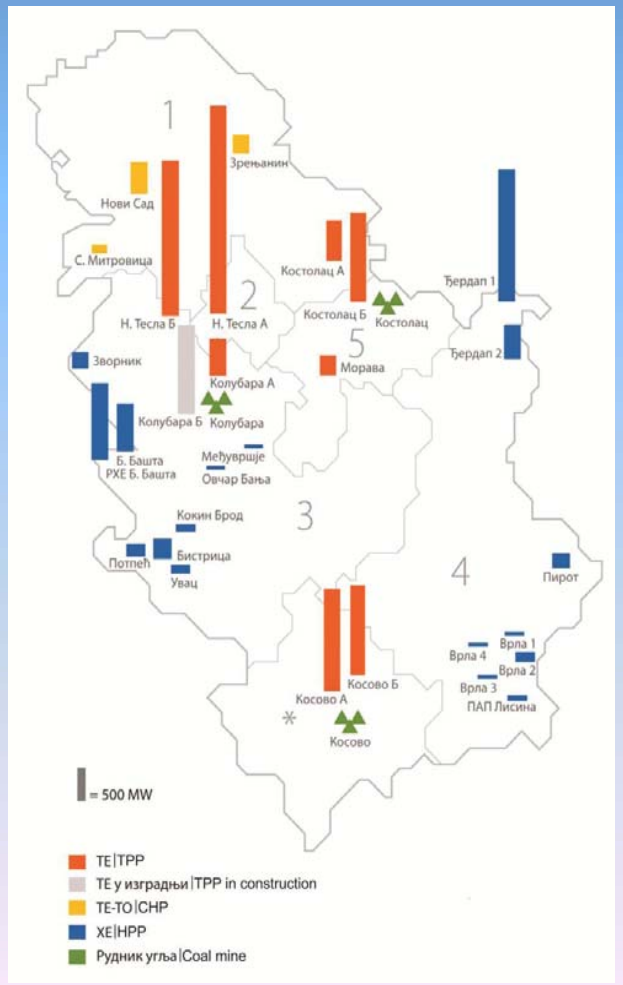
- **DISTRICT HEATING SYSTEM**, in 58 cities of Serbia, consists of decentralized heat sources and appropriate distribution networks.

- **THE INDUSTRIAL ENERGY SYSTEM** includes heating sources, installed in several hundred industrial companies of Serbia

- **Renewable Energy Source**

"Who is who" in Serbian el. energy sector part one

Electric Power Company of Serbia (EPS)



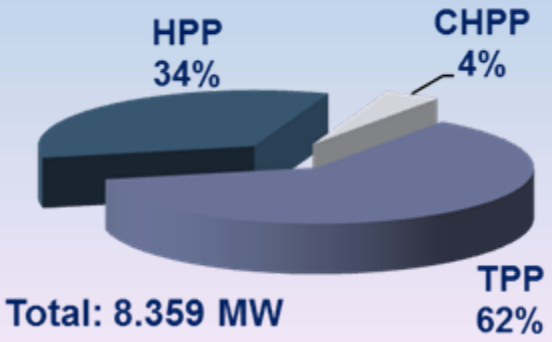
✓Public enterprise

Consists of:

- 5 subsidiaries for the electricity generation and coal mining
- 5 companies for electricity distribution

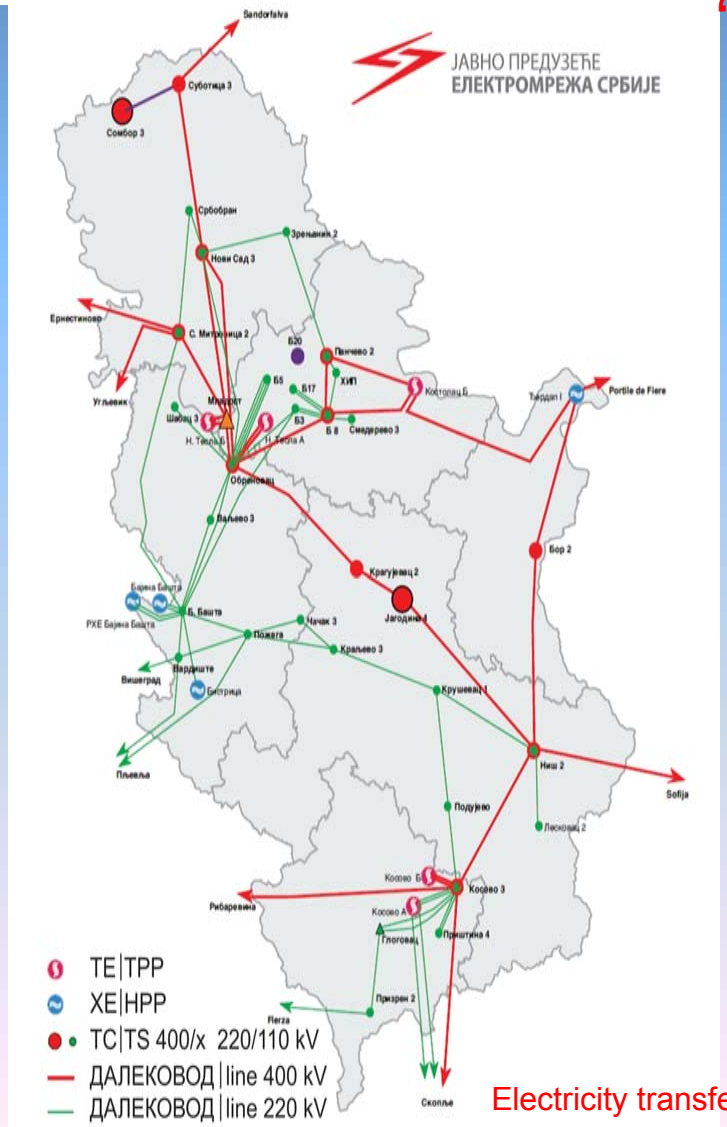
Installed Capacities

Hydro Power Plants	2.835 MW
Thermal Power Plants	5.171 MW
CHP Plants 353 MW	
Total	8.359 MW



*Since June 1st 1999 PE EPS has not managed its capacities in Kosovo and Metohija

"Who is who" in Serbian el.energy sector part two



"Elektromreža Srbije" (PE EMS)

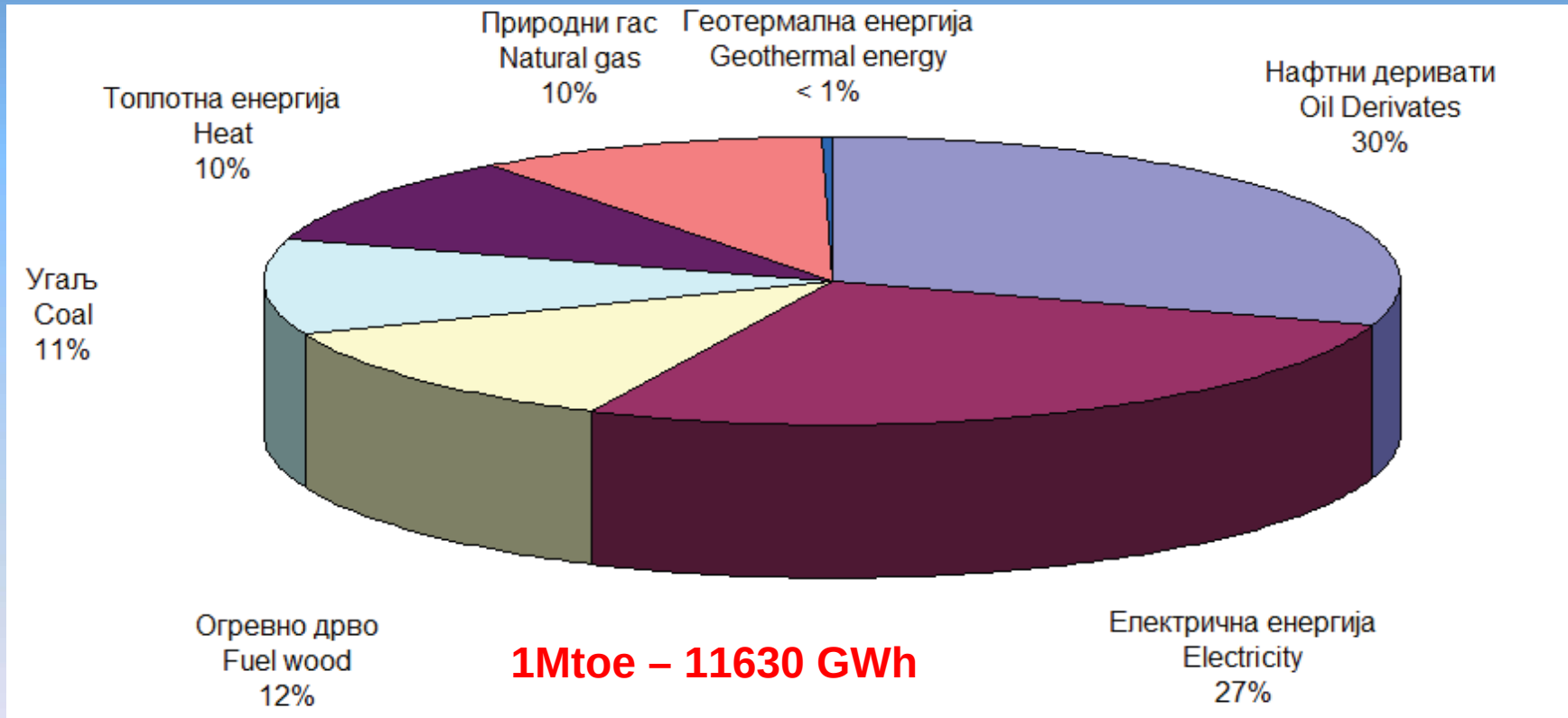
- ✓Public enterprise
- ✓The role of the **PE EMS:** Electricity **transmission**, **management** of the **transfer network** and **electricity market** organization
- ✓The electricity transmission system consists of :
  - 400 kV and 220 kV networks
  - part of 110 kV network
  - as well as other energy objects, and necessary infrastructure
- ✓The total loss on all the voltage levels in 2010 was 2.68 %.

Electricity transfer network of the Republic of Serbia

Electricity exchange of the Republic of Serbia with neighboring countries in 2010

Energy demand

Structure of energy sources in the gross **final energy consumption 2010**

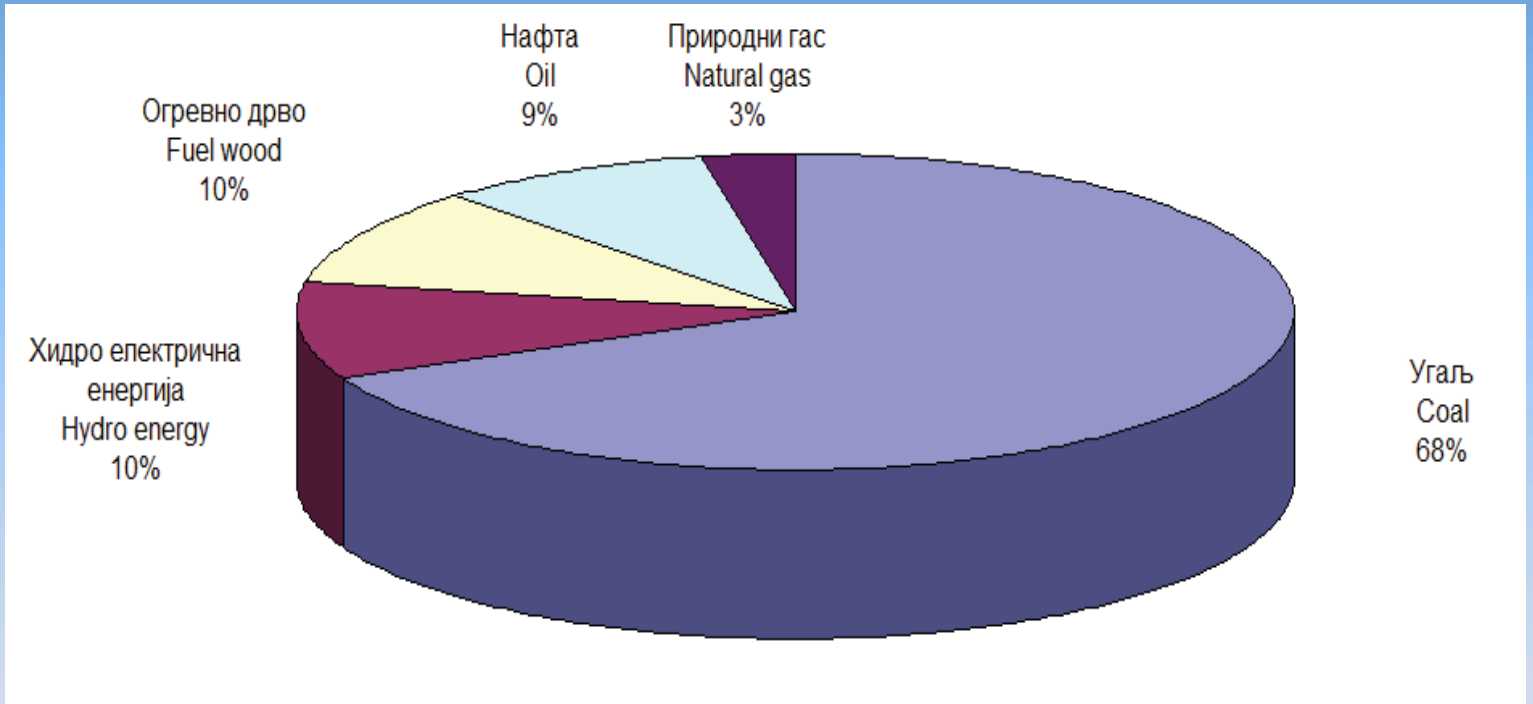


1Mtoe – 11630 GWh

Gross final energy consumption by end users in 2010 was 9.698 Mtoe
Electricity demand was about 2.6 Mtoe

Energy supply

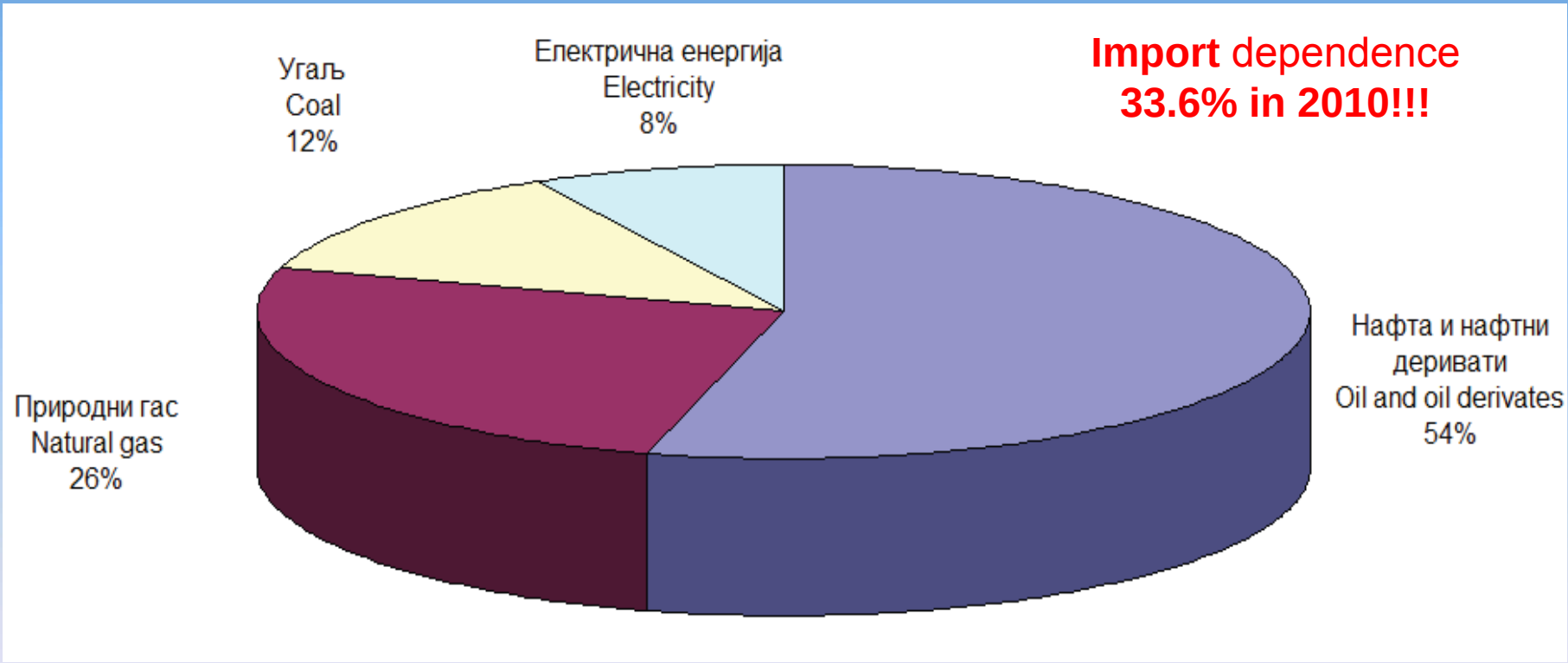
Structure of energy sources in **primary energy production** 2010



In 2010 Serbia produced 10.539 Mtoe, which was about 65% of total energy needs!
Electricity supply by own resource was about 1.05 Mtoe!

Energy import

Structure of the energy sources **import in total** energy balance in Serbia 2010



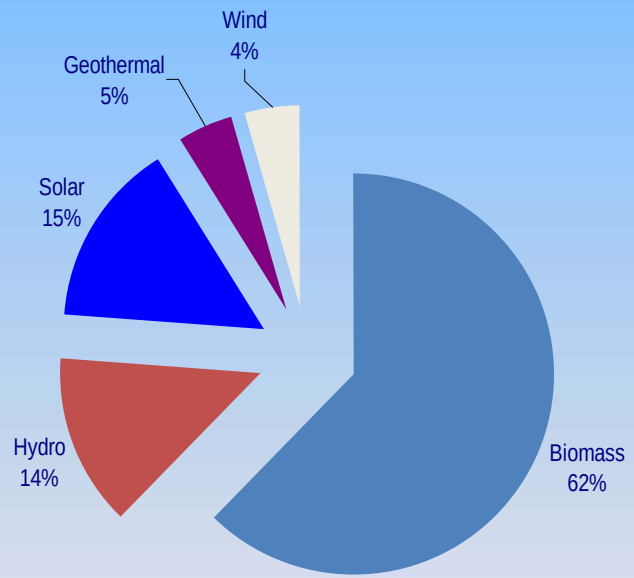
Import dependence
33.6% in 2010!!!

Imported energy in 2010 was 6.140 Mtoe

Renewable Energy Sources

- The renewable energy sector in Serbia is in the early stage of development
- Estimated (still not sufficiently precisely determined) potentials:

33% of produced electricity in 2010 was from hydro!



Potentials (M toe)	
Biomass	2.70
Hydro	0.60
Solar	0.60
Geothermal	0.20
Wind	0.20
TOTAL	4.30

Foreseen gross final energy consumption by Energy community for Serbia in 2020 is 10.330 Mtoe!

It is expected that share from RES in 2020 be about 2.7 Mtoe

Energy policy

- **2005 - Energy Sector Development Strategy of the Republic of Serbia until 2015 (recognized necessity)**
- **One in the 5 basic priorities - increasing use of renewable energy sources**

- **2006 - Republic of Serbia ratified the Treaty establishing the Energy Community - takes over obligations**

- **2007 - Amendments to the Programme for Implementation of Energy Sector Development Strategy 2007-2012 (OJ 99/2009) elaborate Strategy in more details and define priorities for utilization of renewable energy sources.**

GOALS OF ENERGY POLICY IN SERBIA

- ✓Efficient use of available resources for production energy
- ✓Reduction GHG emision
- ✓Decrease of import dependence
- ✓Creation new jobs
- ✓Fulfilling EU obligations in terms of RES utilization

Legislation

✓**2011** - adopted **new Energy Law** (OJ RS 57/2011) - further promote utilization of renewable energy sources :

- An obligation for government to prepare
  - **The National Action Plan for the use of renewable energy sources**

- Energy companies **in RES** may obtain the status of **privileged power producers**

Legislation

Law of Rational use of energy- waits to be adopted !!!

✓Introduces **M**anagement **E**nergy **S**ystem **which is part of energy efficiency policy of Serbia**

✓**Establishes Energy Efficiency Fund**

❖**Document for development of the secondary legislation of the Law on Rational Use of Energy, related to energy management system, was prepared through implementation of the "Study for introduction of energy management in energy consumption sectors in Serbia" financed by Japan International Cooperation Agency (JICA)**

❖**Also preparation of the secondary legislation, with JICA assistance, should start upon approval of the Law by the Government of the Republic of Serbia and could be finalized only upon its adoption by the Parliament**

Sub legislation

Energy Strategy for the period to 2025 and 2030

✓Currently in preparation

✓Consultants selected through a tender process

Barriers:

✓Binding targets for RES 2020 Share are currently the subject of negotiations with Energy Community, and they are to high for Serbia

✓New review of energy potential must be made;

✓The reliable data from previous years are missing, etc.

Sub legislation

National Renewable Energy Action Plan (NREAP) for the period to 2020

✓Currently in preparation

✓NREAP should be the result of Government to Government project which is in progress (Holland and Serbian cooperation)?!?

Barriers:

✓Binding targets for RES 2020 Share are currently the subject of negotiations with Energy Community (too high level for Serbia at this moment)

✓There is no reliable assessment of energy potential from RES

✓The reliable data from previous years are missing, etc.

Barriers for Implementation of Projects in the Field of Renewable and next steps

The key barriers:

- ✓Energy in the Republic of Serbia has not yet become merchandise
- ✓Unrealistic and non-natural parity of prices of energy carriers and their instability - primarily the ratio between the price of electrical energy and fossil and non-fossil fuels
- ✓Problems in obtaining loans for building of power plants of a wind and solar energy - due to limited quotas for feed-in tariffs

Review of bottlenecks in energy sector in general

Lack of Public Awareness for more energy efficiency consumption

Difficulties with changing unrealistic prices of electrical energy

Lack of Serbian technology for RES using

Lack of knowledge of RES using (Lack of an official definition of the terms for biomass, lack of official estimates of biomass availability in accordance with internationally recognized methodology, using RES in energy efficiency and cost effective manner…)

Greater use of RES but in terms of creation new jobs

Organization of biomass market in Serbia

Lack of established licensing procedure and obligation for certification of appliances and biofuels

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Next steps

1. New **Energy Law** provides
- liberalization of markets and prices of energy
- from 1 October 2012 - the Energy Agency will determine the price of electricity and gas instead of the Serbian Government
- temporary status of privileged producer for energy company that uses wind energy and solar energy
2. Government will adopt a new decree for new feed-in tariffs system
3. By the end of this year we will get from EU our obligations (baseline, quota target) for RES
4. By the end of next year we will make
    - new Energy Sector Development Strategy of the Republic Serbia until 2025 (2030)
    - **Action plan for RES and** creation of trajectory in RES area

Ministry of infrastructure and energy
Republic of Serbia

Thank you for your attention!

ご清聴ありがとうございました

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