



Utilizing Renewable Energy Sources in Kosovo till 2020

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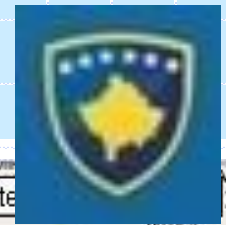
Ministry of Energy and Mining
Republic of Kosovo

Content



- ◆ Introduction
- ◆ Why incentives for Renewable Energy Resources
- ◆ Kosovo obligation for use of RES
- ◆ Sharing experiences – regional and EU
- ◆ Kosovo's case
- ◆ Conclusions

Introduction



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Introduction



Primary Legislation in Energy Sector in Kosovo (June 04)

- Law on Energy -
- Law on Electricity -
- Law on Energy Regulator –
- **Low on Energy Efficiency- (2010)**



July 04

Establishment of
Energy Regulatory Office



Dec 04

Establishment of
Ministry of Energy & Mining

MEM

July 06

Establishment of
TSMO



Nomination

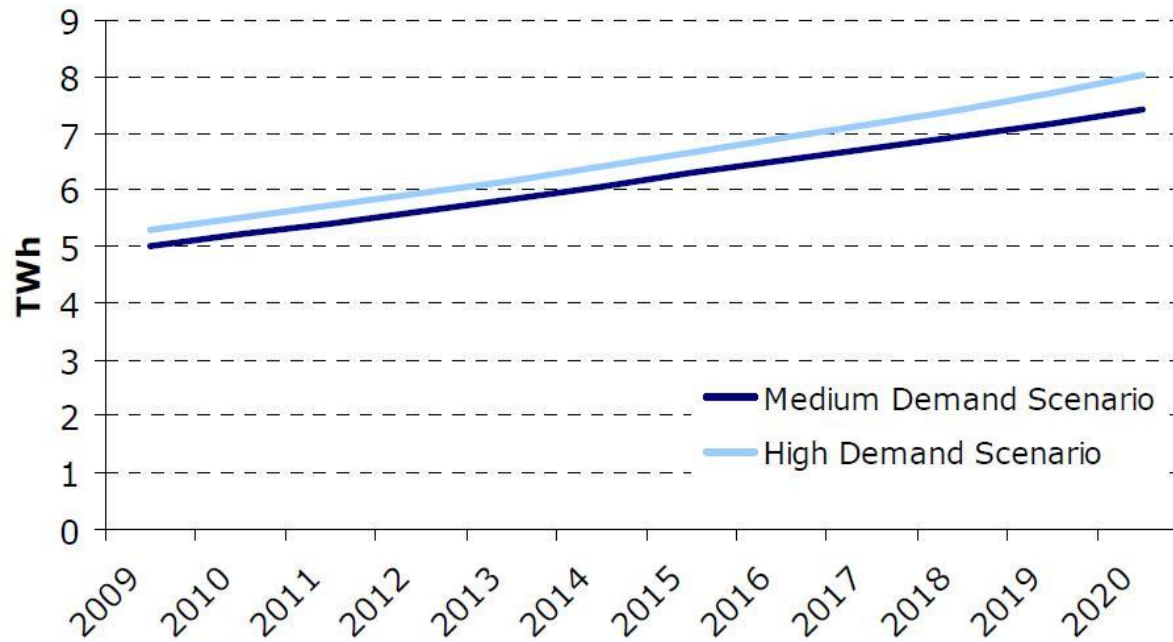
Licensing

*Economic regulation of the
energy sector*

*Designing sectors'
developments strategies and
policies*

*Operation of the electricity
system and electricity market*

Introduction



Forecasted energy demand in Kosovo till 2020

- 2009 Reached 5.2TWh
- 2018 Demand 7-74 TWh
- 2020 Demand 7.4-8 TWh

Why incentives for RES



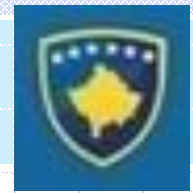
- ◆ RES technologies cannot compete in the energy market with conventional technologies for electricity generation
- ◆ RES support:
 - Fixed tariffs – so called feed-in tariffs
 - Mandatory quotes (green certificates)
 - Subsidies for a part of capital investment
 - Tax relief
 - Bidding of a mandatory amount of energy deriving from RES

Kosovo obligation for use of RES



- ◆ Kosovo is a member of Energy Community Treaty
- ◆ Kosovo is committed to increase the amount of energy generated by renewables
- ◆ Diversification of resources
- ◆ Kosovo's electricity is based (98%) on lignite coal
- ◆ Usage of RES will contribute:
 - Economic growth,
 - Increase of the security of supply, and
 - Environment protection

Kosovo obligation for use of RES



- ◆ Kosovo is required to implement the EU directive 20-20-20 for energy by 2020:
 - Reduction of gas emissions by 20%
 - Increase of RES participation in the total energy consumptions to 20%, and
 - Improvement of energy efficiency by 20%

Kosovo obligation for use of RES



The Law on Energy stipulates that the Ministry responsible for Energy shall each year establish indicative targets for the consumption of electricity and heat generated from RES

Indicative targets for renewable energy for the period 2007 to 2016 were published in 2007 by Ministry of Energy

Source of Energy	Indicative targets for RES electricity consumption (GWh)										Extrapolation
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2020
Hydro	125,8	134,6	145,0	156,3	167,0	178,4	190,5	203,2	216,7	230,4	302,1
Wind	0,0	0,0	0,0	32,6	68,7	108,5	151,9	199,8	252,1	309,9	652,1
Solar	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Biomass	0,0	0,0	0,0	0,0	11,6	17,5	19,8	23,3	29,1	29,1	38,4
Total	125,8	134,6	145,0	188,9	247,4	304,4	362,2	426,2	497,9	569,4	992,5

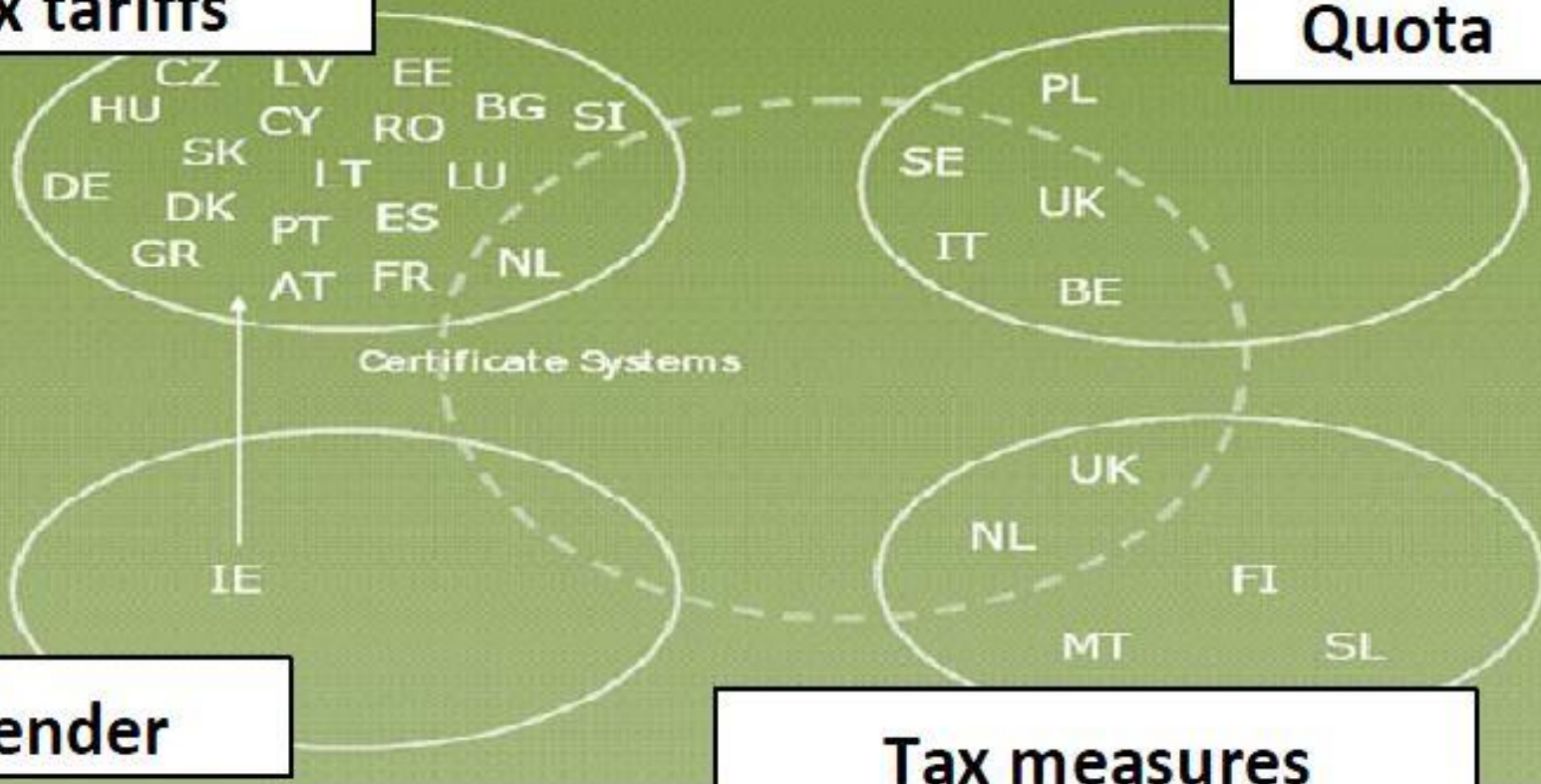
Sharing experiences – regional and EU



Incentives in EU Member States

Fix tariffs

Quota



Tender

Tax measures

Kosovo's case



- ◆ Based in RES indicative targets
- ◆ ERO has set:

HPP Capacity	Price (cent/kWh)
Hydro Power Plants up to 2 MW	6.70
Hydro Power Plants between 2 MW and 5 MW	5.90
Hydro Power Plants between 5 MW and 10 MW	5.60

Incentivized tariffs (feed-in)	Price (Euro/MWh)
All generators using new technology	84.00

- ◆ Other Feed-in tariffs coming soon.



Conclusion

- ◆ First wind farm started on February, 16th 2010
- ◆ Capacity: 3x450kW
- ◆ Estimated energy:
 - ◆ ~3,5 GWh/year
- ◆ Kosovo's Demand 2009
4900 GWh



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Thank you!
Questions?

