Developing Albania's Hydroelectric Potential towards the Networks of the Future

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Good prospects for hydro and electricity sector in Albania

- The development of hydro potential is a main challenge for Albania's electricity network
- The electricity system of Albania will become soon part of the European interconnected electricity network
- Towards a single electricity market with significant benefits
- Targets and trends in the electricity sector favor the development of the hydro potential and pump storage
- The role of the Albanian electricity system in the region of SE Europe is upgraded with emphasis to hydropower

The transformation of the electricity sector in Europe

- Ambitious target for reduction of the greenhouse gas emissions in the electricity sector by 2050
- Towards the electricity network of the 21st century with high penetration of renewables
- An appropriate mix of renewables mainly solar and wind with intermittent character will be integrated into the network
- New lines, large interconnections, storage facilities, innovations, operation tools and others should be developed for the management within a single electricity market
- Main characteristics: periods of surplus power generation and periods of shortage to meet the demand
- The important role of the hydropower and pump storage

An attractive case for hydropower and pump storage in Albania

- An integral strategy in energy and environment should be adopted in line with the European strategy and targets
- A vision and the appropriate strategy in critical electricity issues should be elaborated on the basis of detailed studies
- Small and large hydropower facilitate the penetration of RES and contribute to reducing greenhouse gas emissions in the electricity sector
- Appropriate mix with other renewables and proper development of the hydropower potential is recommended

Main objectives for Large Hydro

- Design with water reservoirs preferably on an annual basis storage capacity considering the environmental issues
- Case of multipurpose plants should be exploited taking into account future needs
- The concept of combined hydroelectric plant and pump storage in cascade mode or with an additional reservoir in high head should be exploited
- Development of the transmission system and large interconnections

Main objectives for SHP as long-term investment projects

- Better exploitation of the natural resources, that is better use of the water and the site characteristics for power generation over a long time horizon, providing contribution to the network demand and ancillary services
- Diligent assessment of the environmental issues, the best integration of the SHP into the natural environment, protection of the fauna and flora, ensuring the water uses upstream and downstream
- Maximisation the social and economic benefits in the long run

The framework for the implementation of the SHP

- Simple licensing procedures and environmental constraints
- Easy access and connection to the grid
- Creation of the appropriate supporting mechanisms
- Methodology and technical issues for better exploitation of hydro potential
- Short-term water storage for power generation in peak hours on a daily basis instead of a run-of-river operation mode through incentives
- Friendly environment for investment and institutional support

Conclusions

- Good prospects for the development of the Hydroelectric Potential and the electricity sector towards the networks of the future
- Vision and strategy with targets in the electricity sector, in line with the EU targets
- An initiative in political level for the proper development of the hydro and the electricity sector in long-term, upgrading the role of Albania in the region
- Creation of an attractive environment for investment for SHP and large ones to achieve the strategic targets with a promising future
- Further discussion with main stakeholders for an efficient framework

THANK YOU
FOR YOUR ATTENTION

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