

The most serious obstacle to greater WPP integration in energy system of Croatia is defined as inability to ensure sufficient reserves of secondary and tertiary P/f control in the current situation. Service of secondary regulation is provided by three hydropower plants, the production of which depends on current hydrologic conditions, and they are mainly out of operation in night periods.

Monsson Group has so far invested more than 200 million euros in the construction and operation of wind farms and photovoltaic plants, as it has been announced in this company. In the last two years, Monsson has expanded its activities in as much as 20 countries, with 500 employees.

“After a delay, we decided to expand our powerful international renewable energy industry in Romania. The lack of new projects lead us to revising investment plans, which we redirected very quickly. The expansion process is supported on the Romanian part, because we are already sufficiently developed and involved in large energy projects, so that we are convinced that we can provide services of equal quality anywhere in the world”, said Sebastian Enache, business development manager in Monsson Group.

“The investment in the international expansion has cost us a lot so far, but we are prepared to continue this process with the aim of increasing the range of our services and expanding to foreign markets”, Enache added.

Currently, Monsson Group has business operations in Europe, Asia, South Africa, in the Near East and New Zealand, moving from the status of developing to implementing complex energy solutions for the projects using renewable energy. Founded in 1997, Monsson turned to RER in 2004 already.

The most famous project of the Monsson Group in Romania has been made for the ČEZ Group, and this is the wind park Fantanele-Cogeaalac, with the capacity of 600 MW.

The most serious obstacle to greater WPP integration in EES RH is defined as inability to ensure sufficient reserves of secondary and tertiary P/f control in the current situation. Service of secondary regulation is provided by three hydropower plants, the production of which depends on current hydrologic conditions, and they are mainly out of operation in night periods. Fast tertiary regulation can generally be provided, but the problem are periods of low load when there are occasionally system surpluses of production and “downward” control cannot be provided.

The problem in ensuring sufficient control reserve is caused by the lack of service support mechanisms, which would make up for the cost of insurance of each ancillary service. In Croatia ancillary services are provided by HOPS by a bilateral agreement with the dominant manufacturer. This method proves to be an unfavorable and leads to a lack of necessary

service system, which consequently leads to shortness of WPP acceptance into the system. There is an ongoing drafting of the new market rules and balancing mechanism, which should solve the problem of uneven distribution of cost variances, and insufficient fund raising needed for balancing. The release of the WPP owner and other major RES, from obligations of production forecasts and financial implications for the deviation leads to a distortion of one of the basic economic principles by which an efficient market is established only if the entity is held responsible for the development and cost of covering the cost. The most important measures to increase the quota of WPP integration in the electric power system of Croatia have been identified:

- Ensuring sufficient P/f control reserve which is available by HOPS and regulation of relations in respect of the provision and collection of ancillary services.
- The inclusion of RES into the balancing mechanism.
- Improving the quality of forecasts of wind power generation and consumption.
- Implementation of HOPS to limit production in the event of VE compromising security system operation.

Long-term construction of CCGT and RHE to market principles.

At the annual and monthly time scale WPP are a stable energy source, whose production is more predictable than hydropower. In the intraday and hourly domain works of WPP greater requirements of control reserve appear, but deviations of WPP generation in the case of Croatia are smaller than errors in consumption forecast. WPP integration is necessary to be prepared legally, economically and technically, in a way that will not reduce the operational safety system with clearly defined entities that bear the costs caused by the integration of WPP. The construction and integration of WPP generally causes an increase in the costs of running the system and network construction and requires it to be clearly stipulated who is responsible for the settlement of certain categories of cost, and establish an effective mechanism to raise funds needed for the integration of WPP.