Dimitar Petrovski
Prof. Vlastimir Glamočanin
Viktor Stevkovski
Faculty of Electrical Engineering Skopje

POWER MARKET SIMULATOR

ABSTRACT

The power market liberalization is a process, which is already realized in many countries. In some of them is on its way of realization, and as a process it began in our country, as well. With the liberalization there is a need for change of the way of work and the structure of the power grid. The power grid is no longer controlled by the power unit, but is split into several sectors, which have their own function. The old structure of the power unit with its vertically integrated way of functioning and management was substantial for the function of the power grid, and being so, lead to the condition it is today. The regulated way of functioning enables equal treatment of all participants in the power grin, and enables installation of the grid in the rural, economically undeveloped areas.

The regulated power grid was a starting position for its crossing to the following phase – deregulation and liberalization. The objective of the deregulation (liberalization) of the power grid is to activate the old inert system. That way it is assumed that a road will be open for new ideas and improvements from which both the producers and consumers of the electrical energy will benefit.

One of the main reasons for the liberalization of the power market is also the expectation that by the appearance of the competition the price of the electrical energy will decrease and the quality will increase. In the deregulated power grid the exchange of the electrical energy i.e. the sale of the energy between GENCO and the retail sale takes place at the power market.

In this new way of functioning of the power grid, and the new way of electrical energy sale, the behavior of the market and the power grid is not fully predictable, so it can bring many surprises on. In order to reduce the factor of surprise, new tools are essential, which would monitor the function of the grid and would simulate the functions of the different parts of the grid.

Keywords: power market, simulator.