

Analysis of Transmission losses in Transmission Area Rijeka

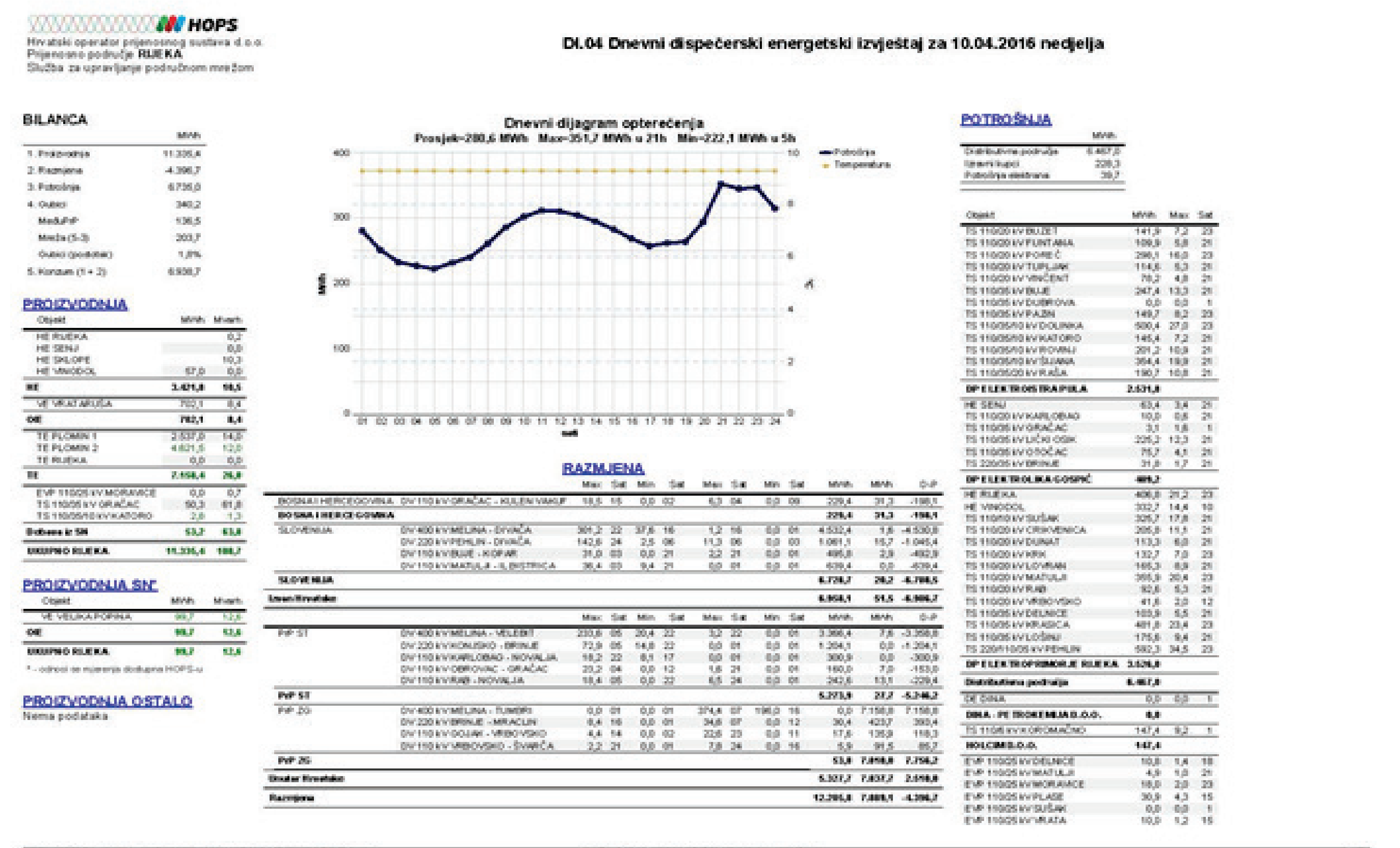
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The process of liberalization and opening of the electricity market, from fully closed to fully open market, also changed the status of electricity losses in the energy systems. With the opening up of the electricity market, losses became even more important and are being devoted more and more attention, from the technical as well as from the economic point of view.

Transmission losses are determined by the technical condition of the network, its components and units as well as by links to other power systems.

When we talk about the demonstration of losses, this influences directly the entire business on one hand and the final price of electricity, which is being paid by the customer, on the other. Because of these reasons planning, monitoring and reduction of losses are one of the priorities of business goals of each operator, as well as a legal obligation.

In HOPS, this combination of sources of data with different views to the same entities resulted with a need for a unique way of data processing which will enable a unique view on all the data in the warehouse. As a solution the CDM (Common Data Model) was implemented. Data flow is established in a manner that it goes from different sources to data warehouse and then continues to the Reporting system.



INFORMATION SYSTEM AND MULTIPLE DATA SOURCES FOR THE CALCULATION OF ENERGY LOSSES

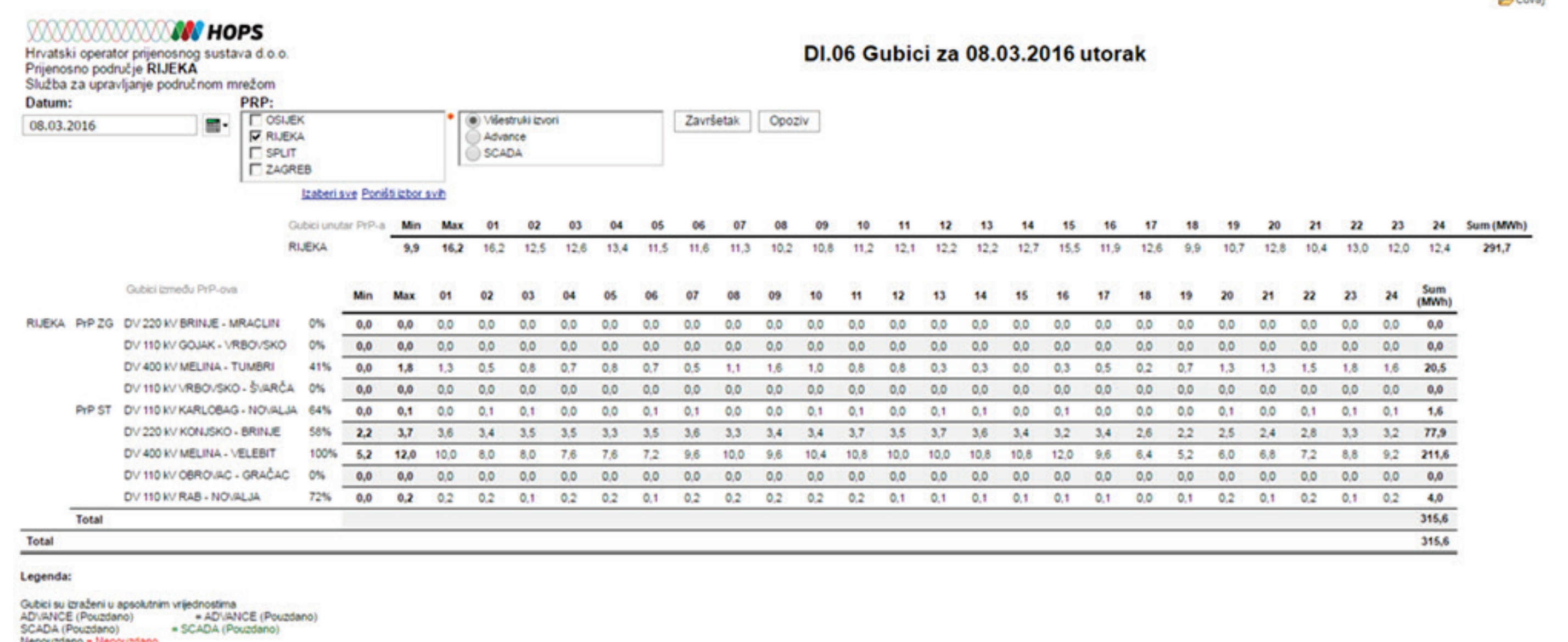
The concept of a Data Warehouse is several years old but only in recent years an increase in the number of implementations can be seen, and slowly but surely accepted as a solution for the analysis and presentation of information.

The storage and subsequent use of data can indeed be a valuable source for decision making or to increase work efficiency. Besides to data storage, the efficient and effective use of information is particularly important. This is typically done with Business Intelligence – BI, at whose base is the implementation of a Data Warehouse – DWH.

Croatian Transmission System Operator (HOPS) has been using multiple sources of electrical energy from a number of complex information systems. The main source of data for storage systems are from metering system - ADVANCE, control and monitoring systems - SCADA (Supervisory Control and Data Acquisition) and the system for managing market functions.

LOSSES IN TRANSMISSION AREA RIJEKA

Analysis of the losses has made on the basis of the data for 8 March 2016 of Transmission area Rijeka.



The structure of the losses consists losses from exchange between neighboring Transmission area of Rijeka and makes 48% of the losses, and losses inside area Rijeka is 52%, as it is shown for 8 March 2016

