1. "Distribution network further development and medium voltage level selection for the area of Public Utility "Elektrosrbija" Kraljevo - Distributive area of Trstenik",

   Ordered by: Public Utility "Elektrosrbija", Kraljevo
   Project Manager: Saša Minić, MSc.
   Associates: Nada Obradović, MSc.
   Branislav Ćupić, MSc.
   Ana Šaranović, MSc.
   Gordana Radović, MSc.

   Long term directions (year 2020.) suggestion of medium voltage distributive network further development for the area of Trstenik has been given in this study. Project has been realized in several phases. The first phase is related to load forecasting: development of the methodology for load forecasting, appliance of developed load forecasting methodology to the distribution area of Trstenik (including staff training) and forming database for long term development planning of distribution network. The second phase of the study included analysis of network's present condition and identification of the bottlenecks which had influence to techno-economical parameters of network exploitation for the distribution area of Trstenik. In the third phase of the study network development directions have been formed and also the selection of possible variants of development was made. The forth phase includes techno-economical comparison of selected variants, with special attention to variants with 20 kV voltage level appliance. Finally, suggestion of optimal variant of medium voltage distribution network further development for the distribution area of Trstenik, has been given in the study conclusion, concerning connections of Trstenik to adjacent distribution areas (Vrnjačka Banja, Kruševac, Jagodina). Initial network size: ~240 MV/LV substations. Population: ~60000.

   Size of Project: 187 pages
   Finished in: 2001.

2. "Upgrading of reactive power compensation in EES EPS using existing capacitor batteries - the 1st phase for the area of Public Utility Elektrodistribucija Beograd i Elektrovojvodina Novi Sad",

   Ordered by: Public Utility "Elektroprivreda Srbije", Belgrade
   Project Manager: Miloje Kostić, PhD.
   Associate: Branko Mandić

   Upgrading of reactive power compensation has been realized by using procedures for increasing usage of capacitor batteries in networks of small and medium consumers. Complete realization of the Program included study phase, project phase and also the proposed solution realization phase (without investment and also in short term: endmost in 1 - 2 months at the concrete consumer). Beside energetic analysis, needed analysis of the higher harmonic regimes have also been performed, both for consumers' network and for supplying distribution network. Project has been realized for 50 consumers. As a result of the project realization, capacitor batteries, whose overall power is about 30,000 kVar, are working in a permanent regime now. Amount of produced reactive (capacitive) energy increased about 250,000,000 kVarh/year in regard to previous case, where capacitor batteries were with automatic regulation.

   Size of Project: 88 pages
   Finished in: 2001.

3. "Forming database for 400, 220, 110 and 35 kV networks of EPS and connection with programs for development planning and network (distribution and transmission) exploitation",

   Ordered by: Public Utility "Elektroprivreda Srbije", Belgrade
   Project Manager: Đorđe Dobrijević, MSc.
   Associate: Branislav Petković, MSc.

   In this study, database of transmission network of EPS has been formed. Database contains all needed data about lines, transformers and generators, which are necessary for the load flow calculations. Also, this database is connected to database of 15 minutes loads, which enables automatic updating loads for all system nodes for the chosen 15 minutes period. This database is connected to programs DLF/OPF and CLF/OPF, too. Program DLF/OPF reads all needed data form database, calculates load flows and writes results to database, which enables user-friendly searching of output results. Program CLF/OPF has bidirectional data exchange with database (input data for the CLF/OPF can be written in the database, and data from database can also be written directly to the CLF/OPF input file).

   Finished in: 2001.