

- Project Title** Technical Specifications for the Application Software of the Offline Distribution Engineering System (Especificaciones Técnicas del Software de Aplicación para los Sistemas de Ingeniería de Distribución) of Chilectra and Codensa
- Contracting Agency** Synapsis, Chile, on behalf of Chilectra (Chile) and Codensa (Colombia)
- Project Organization** Prime Contractor: Energy Consulting International, Inc. (ECI). The work was performed by Savu C. Savulescu, with full responsibility for all the technical and project management aspects of the project
- Summary** The project encompassed identifying requirements, searching the market for compatible products, and updating the existing technical specifications for the application software to be purchased by Synapsis for subsequent use in the offline distribution engineering systems of Chilectra, in Chile, and Codensa, in Colombia. Particular attention has been paid to the following key points:
- Functionality, which covered the full range of distribution engineering studies conducted at Chilectra and Codensa
 - User interface and facilities for executing the distribution engineering tasks in a fully integrated web-based environment
 - Data and operational interfaces with the existing and/or upcoming SCADA/DMS facilities of Chilectra and Codensa
- Background** As part of its system and operational planning activities, Chilectra performs a broad range of distribution engineering studies. At the time when this project was launched, the various types of studies were performed on an individual basis, rather than in a coordinated fashion, in the sense that the personnel responsible for the execution of a task would carry on the work on his/her workstation by using software tools developed in-house or acquired from various vendors and by accessing various databases – but the myriad of project supervision chores would be conducted ad-hoc, without any form of computerized coordination and management. In order to increase productivity, reduce costs and assure that all the studies will be performed within an integrate environment of data, software tools and work-flow procedures, Synapsis took the decision to replace the existing islands of individual work at Chilectra with an offline distribution engineering *system* that would support the computerized, fully integrated execution of the distribution engineering processes.
- In order to move forward and get ready for selecting a vendor, Synapsis contracted ECI for the purpose of refining the existing technical specifications, conducting a market research, and complementing the existing spec with bid evaluation provisions that could be used for the procurement specifications.
- Objectives**
- Solicitation to perform a study
 - Management of studies and projects

Scope of Work	<ul style="list-style-type: none">▪ Management of alternate solutions▪ Execution of standard electrical calculations▪ Quantifying the proposed alternatives▪ Maintenance of the information repository▪ Integration with the real-time distribution systems▪ Assure that the offline distribution engineering system contemplated for Chilectra could also be used at Codensa, in Colombia▪ Preparation of a questionnaire for the purpose of facilitating the collection of data required to perform the project activities▪ Working visit at Chilectra, in Santiago, for the purpose of identifying and quantifying the: engineering processes that are currently being executed, such as technical studies, investment plans, network optimization studies, and so on; data requirements, including the information flow between the various administrative divisions that perform engineering processes; information interfaces between the new offline distribution engineering system and the Sistema de Distribución América (SDA)▪ Develop an inventory of the applications that either currently exist and are being used at Chilectra or can be purchase on the international software market▪ Identify a database architecture consistent with the project objectives▪ Design the conceptual architecture of the new system▪ Update the existing technical specifications and complement them with tools that will be used during the evaluation of bids▪ Conduct a market research for the purpose of denitrifying systems and/or applications that meet the Chilectra and Codensa requirements
Period of Performance	May – November 2008