



Subtask 5- Spanish Technology Case Study

SP Tech Case #1: GECO Consumers Management Tool

A. Brief Overview

GECO is a support tool used to increase the demand response participation which operates by REE, taking into account a medium and long term horizon. GECO analyzes DR programs operation, and allow planning and evaluate these DR programs.

GECO is a combination of many applications. All these applications use data provided by GECO/CORE tool, this tool organize and store the static and dynamic information about Spanish interruptible tariff consumers. The information is frequently updated through Consumer's Load Profile with new data every 15 minutes.

B. Description of the DR Technology

GECO has three applications:

1. OPCO: Forecast Model of consumer response during the operation period. It is a prototype for assisting the interruption system operation.

OPCO is an application designed to forecast and analyze the performance of Hourly Power Tariff Consumer when an interruption order is sent. It shows the order results in an easy and graphic manner.

OPCO resolve the following questions:

- How much interruption capacity will be available in one specific day, both by consumer, zone or total?
- How many MW did one consumer use during the year?
- How many MW one consumer used in comparison with its contract power, offer power, and average power in one specific day?

OPCO has three operation modes:

- Fast analysis of prevision for the current day.
- Detailed analysis of prevision for the current day, additionally the real behaviour consumer during previous 15 days is considerate.
- Analysis of historic behaviour of one consumer. The possibility to choose the date for the analysis is available.

2. CODIR. Consumer Directory, Negotiation and Planning Tool

CODIR is an application for monitoring and analysis consumers. It uses static data (identifying, contract type, supply type) and dynamic data (consumptions and load profiles); all data are provided by GECO. Furthermore CODIR is an interactive analysis tools, it study data for preparing one report of consumer' characteristic; the report shows contract type, location, consumption impact in the grid, and identifying. The calculation of energy consumption, power, economic estimations relating to tariffs are showed in clear and easy form.

With CODIR is available to calculate the amount to pay for consumer considering energy and power, this calculate can be development on different tariffs type.

CODIR has two operation modes:

- Automatic. This mode provides very recent data about one consumer.
- Study. It allows historic analysis of one consumer performance evolution.

3. ATLAS. It offers demand Characteristics. Planning and Valuation Tool.

ATLAS is an application that allows knowing the characteristics of interruptible demand offered that is operable. Furthermore, ATLAS shows these characteristics in a graphic. This study can be for all consumers or just for a consumer group with specific restrictions.

ATLAS use data which are provided by GECO (static and dynamic). It has access to get data of 10 years before. This capacity allows to analyse the evolution consumer in the long time.

C. Further Information

www.ree.es