

# utilisoft

## ALL ISLAND SINGLE ELECTRICITY MARKET PROJECT

### Background to the Project

The All-Island Project is a joint initiative run by the Commission for Energy Regulation and the Northern Ireland Authority for Utility Regulation. The aim of the project was to create a single electricity market (SEM) on the island of Ireland, which would "Go-Live" in November 2007.

The project was started following a joint policy decision by the Minister for Enterprise, Trade and Investment in Northern Ireland and the Minister for Communications, Marine and Natural Resources to create the all-island energy market. By creating a single market, both jurisdictions benefit from increased competition, reduced energy costs and improved reliability of supply.

The SEM is a gross pool market, into which all electricity generated on or imported onto the island of Ireland must be sold, and from which all wholesale electricity for consumption on or export from the island of Ireland must be purchased.

### The Selection Process

Utilisoft developed a solution for the SEM which has been chosen by **Synergen**, **Bord Gais** and **Tynagh Energy** to support their market entry and ongoing market participation. All 3 undertook a rigorous tendering process which amongst other things looked into *proposed solution functionality*, *track record in the industry* and *key commercial factors*. All of the tender processes pitched Utilisoft against a number of large multi-national corporations - and all 3 of the clients were impressed with Utilisoft's commitment to the All Island Market and track record of meeting challenging deadlines in similar developing markets, including the Australian National Electricity Market. Other factors that influenced the selection of Utilisoft included *the knowledge and expertise of Utilisoft's team* and the company's *existing partnerships and reputation in the utilities industry*.



"We undertook a rigorous selection process in identifying the supplier of the systems to support our SEM participation. We selected Utilisoft based on the proven track record of their technologies. Utilisoft's knowledge and experience in the UK, Irish and Australian market gave us great assurance that we would meet all the market requirements of the market before the Go Live date." Caitriona Kinsman, General Manager, Synergen

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## The Solution

Utilisoft's solution for the All Island Single Electricity Market is built on the cornerstones of the existing solution set, with a number of developments and modifications specific to the SEM. The Utilisoft SEM solution provides all the necessary functionality to provide web services connectivity to the SMO systems and to co-ordinate the flow of information within participant systems.

**Market Messaging Hub** – Message hub and router based on Utilisoft's industry leading **GateKeeper** application. The Message Hub provides a web services application to *push encrypted data to the SMO* and to receive *incoming data* and is fully conformant with the API message formats. The Message Hub polls for the various data feeds within participants' systems and performs all necessary processing to create messages to send to the SMO systems.

**Market Message Creator** – The Utilisoft SEM Market Message Creator provides a web browser based interface for viewing market messages and creating messages, in addition to accessing the Administration functionality of the Market Message Hub (dependent on user permissions). The Market Message creator is based on Utilisoft's leading edge **DataFlow.WEB** solution enables users, either in the plant or the back office to view any message that has passed in or out of the system. In addition it can also be used to create messages should the automated message creation functions fail for any reason.

**Power Plant Bidding Tool** - Utilisoft's Power Plant Bidding Tool is a web based interface that allows Power Plant personnel to upload data, perform calculations and which replaces the previously deployed systems for operational use under the SEM regime. The Power Plant Bidding Tool performs many key functions including *automatic uploading of weather data into the database; processing of all necessary calculations based on data received from multiple sources; submission of output data to the Message Hub to enable the generation of SMO market data submissions.*

The image displays two screenshots of web applications. The top screenshot shows the 'Utilisoft SEM Bidding Tool' interface in a Windows Internet Explorer browser. The address bar shows 'http://localhost:7070/SEM/BiddingToolWeb/createNomination.htm'. The page title is 'Utilisoft SEM Bidding Tool'. The main content area is titled 'Adjust Nomination' and features a 'Trading Date' field set to '25/10/2007'. Below this is a table with columns for time intervals and corresponding values. The table data is as follows:

407.745	08:00	407.745	08:30	407.745
407.745	11:00	370.198	11:30	370.198
407.745	14:00	407.745	14:30	407.745
407.745	17:00	407.745	17:30	407.745
407.745	20:00	407.745	20:30	407.745
407.745	23:00	407.745	23:30	407.745
407.745	02:00	407.745	02:30	407.745
407.745	05:00	407.745	05:30	407.745
654191	10:00	654191	11:00	688000
670291	16:00	670291	17:00	670291
668143	22:00	668143	23:00	668143
666608	04:00	666608	05:00	666608

The bottom screenshot shows the 'Utilisoft Message Hub' interface in a Windows Internet Explorer browser. The address bar shows 'http://localhost:7070/SEMWeb/OfferCreation.html?offerType=generatorSubmit'. The page title is 'Utilisoft Message Hub'. The main content area is titled 'Generator Submit Information' and contains several form fields and checkboxes. The form fields are: 'Resource Name' (dropdown), 'Resource Type' (text input), and 'Unit Under Test' (dropdown set to 'FALSE'). The checkboxes are: 'Standing Submit', 'Pumped Storage Detail', 'Energy Limit Detail', 'Price Maker Detail', 'Price Taker Detail', and 'Forecast Detail'. At the bottom of the form are 'BACK' and 'SUBMIT OFFER' buttons.



## Project Implementation

The Single Electricity Market project was a challenging one for all involved. The time from the first announcement of the market formation to Go-Live was relatively short. Consequently, Utilisoft had less than 12 months from selection by the first customer to market Go-Live on November 1st 2007. The project involved a number of deadlines along the course of 2007, including a number of pre-market tests to identify participants preparedness, including the Type 3 Communications Channel Qualification Testing in June 2007.

All of Utilisoft's customers completed all the requirements of the pre-market preparations and subsequently successfully achieved Go-Live in November 2007.

*"The quality of Utilisoft's solution and the knowledge of their people was obvious to see in the selection, testing and implementation phases of the project. All the way through the project Utilisoft made Tynagh Energy feel very comfortable and understood the need for us to meet the rigorous requirements of pre-market trials, whilst at the same time developing an enduring, technologically advanced solution to meet our needs following Go-Live."* Colin Spain, SEM Project Manager, Tynagh Energy Limited

*"We found Utilisoft to be a very flexible and customer oriented organisation at all times during the SEM development project and we look forward to working with them on future developments and projects."* Terence McGovern, Synergen Dublin Bay Power

## ABOUT UTILISOFT

Utilisoft is the new name for Formfill : a leading supplier of software solutions to the global energy and utilities market for over a decade. Utilisoft creates the *software powering utilities*, supplying market leading energy data management and process solutions. Our innovative product suite is continually evolving to address changing market requirements, deliver additional functionality and harness technological advancements.

Utilisoft is dedicated to the energy and utilities sector and offers solutions that meet the evolving needs of our clients. Our software is oriented to offer ease of operation and efficiency, keeping the technological complexity away from the user.

### Contact Utilisoft



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