
UTILITY TO UTILITY

LEADING GLOBAL ENGINEERING CONSULTANCY



INTERNATIONAL

Utility to Utility • Power Generation • Transmission & Distribution • Strategic Advisory • Specialist Services



WELCOME

ESB International works in close association with power industry clients around the world to deliver reliable, secure and efficient utility services.

ESB International, which is wholly owned by the Electricity Supply Board (ESB), is a leading engineering consultancy firm to the global utility sector. Headquartered in Dublin, Ireland, we employ over 725 staff across operations in Europe, the Middle East, Africa and South East Asia.

We work in partnership with asset owners to deliver large-scale, capital intensive projects, using a proprietary project delivery methodology to minimise project risk and maximise investor returns.

In all our markets, we are faced with strategic challenges that affect millions of people – and our solutions help to transform economies, societies, and the lives of individuals and communities.

Our success is built solidly on our experience in delivering electricity to our own country, resulting in a social and economic revolution over many decades.

ESB has brought electricity to Ireland's major towns and cities; a Rural Electrification Scheme brought the transformative power of electricity to even the most remote corners of the country.

We have drawn on this experience in over 120 countries around the world, offering not just technical expertise, but also the leadership and personal commitment to succeed in some of the most demanding economies and geographical regions around the globe.

We would be delighted to share our Utility expertise with you, and we assure you of our unstinting support throughout whatever journey you may now be embarking on.



EXPERIENCE FROM OUR OWN NATIONAL ELECTRICITY NETWORK

ESB International's deep-rooted utility background gives us a unique and practical insight into the commercial, environmental and operational challenges facing power asset owners and investors.

Our utility expertise has been amassed through decades of work as the centre of engineering excellence for our parent company. ESB implemented rural electrification in Ireland from the 1940s to the 1970s. Since then, ESB has responded to the demands of the industry and society to develop into one of the world's leading power utilities.

Between 2000 and 2012, ESB invested €7 billion on its networks infrastructure – the largest expenditure of any electricity distribution company in Europe – and has now one of the most modern and robust electricity networks in the world. ESB is recognised by the International Energy Agency as being a “world leader in smart networks” and was awarded “Exemplar International Utility” by IBM in 2013.

ESB has also undergone very significant change in recent years in response to full market deregulation. ESB's journey for change was driven by the vision of our board and management in response to a changing environment and guided by European Directives and the necessity to deliver an efficient electricity sector. Between 1999 and 2012, ESB oversaw the unbundling of networks and the establishment of an independent TSO (transmission system operator), deregulation of pricing, new market structures and the introduction of full competition in generation and retail.



UTILITY TO UTILITY SERVICES IN GREATER DETAIL

ESB International has a proven track record in international utility management projects. Our integrated solutions are underpinned by a comprehensive range of services that are delivered by a multi-disciplinary team of engineering, regulatory and commercial specialists, all with a power utility background.

GENERATION, TRANSMISSION & DISTRIBUTION UTILITIES

Institutional strengthening of generation, transmission and distribution utilities



CHANGE MANAGEMENT

Utility change management as part of utility reforms, unbundling and energy sector improvements



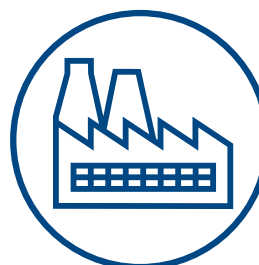
BUSINESS EFFICIENCY IMPROVEMENTS

Utility planning and business efficiency improvements



RENEWABLE ENERGY

Detailed technical analysis for energy efficiency, renewable energy, loss reduction



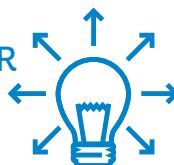
BUSINESS SYSTEMS AUDITS

Efficiency and business systems audits



SKILLS TRANSFER

Skills transfer, training and capacity building



RE-ORGANISING

Re-organising and right sizing



CUSTOMER RELATIONSHIP MANAGEMENT

FINANCIAL ANALYSIS

Techno-economic and financial analysis



INTERNATIONAL EXPERIENCE IN UTILITY MANAGEMENT CONTRACTS

For over four decades, our company has worked in 120 countries around the globe – on behalf of utilities, private developers, regulators, governments, funding agencies and banks.

During those four decades, ESB International has established a well-deserved reputation for understanding the needs of developing countries, delivering cost-effective services and solutions, ensuring the successful transfer of technology and know-how, and for being a trusted partner for our clients. Proof of the relationships of trust that we build is the fact that many of our clients have been with us for several decades.

Over recent years, “turnaround” management contracts have been used in the transmission and distribution sectors, and to transform vertically integrated utilities. They are acknowledged as an effective way of improving the organisation and the operations of non-performing companies and to develop our local management team to ensure improvements are sustained.

ESB International has undertaken ‘turnaround’ management contracts in a wide variety of locations including Georgia, Kosovo, Sierra Leone and Guyana.

Management contracts are also used in “start-up” situations where a restructured electricity industry requires new entities to take over new functions – or those previously carried out by others. Examples are system and market operations and transmission administration. ESB International’s experience in this arena includes projects in Canada and the USA.

SPECIALIST UTILITY CONSULTANCY SERVICES

ESB International provides specific consultancy services to the power utility business. This includes technical, engineering, financial, strategic and management consulting services across all areas of a utility's operation – from power generation to transmission & distribution and customer supply.

We undertake operational reviews of utility companies and provide strategic, technical, engineering and financial advice. We also make recommendations on future actions and investments required to transform companies into modern and efficient utilities.

In the 1990s, ESB International advised a number of central and eastern European governments and utilities ahead of the privatisation of their electricity markets, including Bulgaria, Poland, Romania and Ukraine.

We have also been the resident consultant to the Electricity and Water Authority of Bahrain (EWA) since 1976, and recently advised the Kingdom of Bahrain on the corporatisation of EWA. In 2015, ESB International provided technical advice to the IFC on the corporatisation of YESB, the government owned distribution company in Myanmar.

ESB International draws on expertise from our parent company, ESB, to provide consultancy services across the full spectrum of utility operations, as well as related training and capacity building. Some recent examples include engineering and management system audits, safety system reviews, and customer service improvement programmes, for clients in Malaysia, Oman, Ghana and Tanzania.

As part of our utility management services, ESB International also provides full Operation and Maintenance (O&M) services to power plants, operating them to best international practice. We have provided long-term O&M contracts in Ghana, Pakistan, Malaysia, Turkey and the United Kingdom, among others.



A CASE STUDY TO JUDGE US ON

TRANSMISSION SYSTEM MANAGEMENT CONTRACT, GEORGIA



Start Date – End Date

2002 - 2007

Duration of Assignment

5 Years

Client Name

Ministry of Energy, Rep. of Georgia

BACKGROUND

ESB International was the management contractor of the Georgian State Electrosystem (GSE), the owner and operator of Georgia's high voltage transmission system comprising almost 3,000 km HV lines. This contract was funded by the World Bank and KfW.

OUTCOMES

During the contract, the organisation and human resource management practices of the company were completely overhauled, modern IT systems were introduced, new financial control systems were implemented and major transmission system projects were executed to international standards.

"The World Bank recognizes the important role ESB International, under its management contract for transmission company GSE, has played in improving the power supply to Georgian citizens. ESB International has executed its management contract as a team, and we appreciate the work of all those individuals who have served on the project and the support they were given from ESB International's headquarters"

Donna M. Dowsett-Coirolo, World Bank,
Country Director, Georgia.

SOME OF THE ACHIEVEMENTS BY ESB INTERNATIONAL ON THIS CONTRACT INCLUDE:

- > Transmission system losses reduced from 23% to 2%
- > Emergency outages substantially reduced
- > Retail collections outside Tbilisi at record high levels
- > Wholesale collections increased fourfold

BENEFITS TO THE INFRASTRUCTURE & ECONOMY

- > GSE become the first major Georgian company to produce audited accounts to IFRS standards
- > GSE's organisation and HR management completely overhauled
- > Prevention of minor faults developing into nationwide blackouts

WE SHOULD BE TALKING TO EACH OTHER

To discuss your Utility to Utility needs, please get in touch with ESB International at the contact points below.

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