
STRATEGIC ADVISORY

LEADING GLOBAL ENGINEERING CONSULTANCY



INTERNATIONAL

Utility to Utility · Power Generation · Transmission & Distribution · **Strategic Advisory** · Specialist Services

THE MISSION OF ESB
INTERNATIONAL IS TO
UNLOCK VALUE FOR
ENERGY UTILITIES AND
DEVELOPERS RIGHT
AROUND THE GLOBE.



WELCOME

ESB International provides strategic advice, executive management support, project management, engineering expertise and utility solutions to governments, utilities, private developers and other key stakeholders in the power sector.

ESB International, which is wholly owned by Electricity Supply Board (ESB), is a leading engineering consultancy firm to the global utility sector. We are headquartered in Dublin, Ireland, with a central hub in the Kingdom of Bahrain and have operations in Europe, the Middle East, Africa and South East Asia. We have a fully-integrated structure with a team of 7,500+ experts.

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 the 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 Strategic Advisory expertise with you, and we assure you of our unstinting support throughout whatever journey you may now be embarking on.

THE PROBLEMS WE SOLVE FOR OUR CLIENTS

ESB International's Strategic Advisory has a primary goal "to enhance the ability of our clients to meet their key business objectives". This involves us addressing a number of significant, recurring challenges throughout the world.

LACK OF ACCESS TO POWER

One sixth of the world's population, 1.2 billion people, lacks access to electricity. ESB International has demonstrated success in rural electrification and integration of renewables.

ATTRACTING PRIVATE SECTOR INVESTMENT

ESB International has worked with developers and government agencies to identify regulatory framework conditions or other industry factors to promote the optimum development of energy assets.

MARKET REFORM

Electricity markets around the world are experiencing enormous change with competition, unbundling of services, tariff reform, renewables and new technologies. ESB group has been a leader in the transformation of the Irish & UK electricity markets and a respected advisor on power sector reform internationally.

UTILITY CORPORATISATION AND PERFORMANCE IMPROVEMENTS

ESB International has assisted government agencies on corporatisation, restructuring and local capability development. We work with existing management teams and also harness the expertise of our own specialists and senior managers in capacity building and knowledge transfer.

UTILITY TURNAROUND

Power utilities in many developing countries are often overburdened with debt, insufficient investment, inflexible organisations and tariffs which are not cost-reflective. ESB International has a wealth of experience in utility management assisting the transformation of these utilities into efficient, technically capable and financially viable entities.



STRATEGIC ADVISORY SERVICES IN GREATER DETAIL

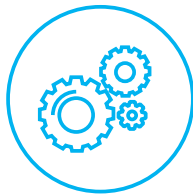
ESB International has developed a multifunctional, expert team that specialises in a range of consultancy services for the power sector and this is reflected in the range of services that we offer.





STRATEGIC & REGULATORY ADVICE

- Industry, market and organisation review
 - Investment studies and advisory support
 - Development of turnaround strategies
 - Asset performance & due diligence
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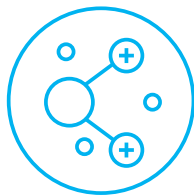
PROJECT DEVELOPMENT

- Techno-economic & project feasibility studies
 - Risk analysis
 - Lender's and owner's advisor
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OPERATIONAL PERFORMANCE

- Audits of power utilities & operating assets
 - Utility support services & systems
 - Management contracts
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NEW & EMERGING TECHNOLOGIES

- Economics of power assets
 - Energy innovations
 - Emerging utility models
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STRATEGIC ADVISORY SERVICES IN PRACTICE



STRATEGIC & REGULATORY ADVICE

ESB International has provided consultancy services for energy markets on behalf of various stakeholders including incumbents and potential entrants. These studies typically involve industry and market analysis, supply and demand forecasts, operating regimes, network configurations and the potential for renewables, industrial and municipal co-generation.

MARKET ECONOMICS SERVICES

- Market analysis
- Economic modelling & tariff analysis
- Pre-privatisation, privatisation and deregulation advice
- Electricity and gas market regulation
- Climate services – emissions management & offsets
- Fuel strategies & carbon abatement

INVESTMENT APPRAISAL SERVICES

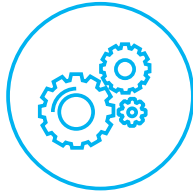
- Pre-feasibility studies
- Due diligence studies
- Financial and economic modelling
- Risk analysis
- Contracting advice
- Asset valuation
- Demand forecasting, forward pricing
- IPP frameworks & agreements

Completed Project

Technical advisor on PSP options, Zanzibar



STRATEGIC ADVISORY SERVICES IN PRACTICE



PROJECT DEVELOPMENT

ESB Group has developed a number of plants in open competitive electricity markets, most notably Combined Cycle Gas Turbine (CCGT) and wind power plants in Spain, UK and Ireland.

These projects have provided the ESB International engineering teams with extensive experience of managing a wide range of market, design and performance issues. ESB International provides a complete range of services covering all stages of the asset life cycle, which include feasibility studies, project management and commissioning & maintenance.

COMMERCIAL SERVICES

- Feasibility studies
- Project valuation
- Determination of pro forma business case
- Information memoranda

TECHNICAL SERVICES

- Risk analysis and mitigation
- Frameworks and agreements
- Commercial due-diligence

Completed Project

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Feasibility study for CCGT power plant development, Ghana









STRATEGIC ADVISORY SERVICES IN PRACTICE



OPERATIONAL PERFORMANCE

Operational performance in non-performing utilities and other power sector organisations can often be improved very effectively by utilising management contracts. The turnaround management contract is a useful alternative to privatisation, or it can be used in preparing a utility for privatisation.

Management contracts are also used in “start-up” situations, where a restructured electricity industry requires new entities to take over either new functions or those previously carried out by others. Examples are system and market operations and transmission administration. With its wide experience as an operator, ESB International has a proven track record in utility management projects of various ranges of complexity.

ESB International also undertakes a range of audits and reviews of organisations and systems in utilities to support performance improvement in various utility functions.

OPERATIONAL IMPROVEMENT

- Strategic & operational reviews
- Business planning & institutional strengthening
- Engineering and business system audits

UTILITY MANAGEMENT

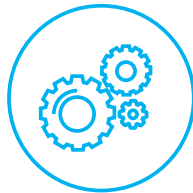
- Corporate services
- System and market operations and transmission and administration
- Organisation and operations

Completed Project

Customer services delivery design & implementation in power distribution sector, Oman



STRATEGIC ADVISORY SERVICES IN PRACTICE



NEW & EMERGING TECHNOLOGIES

ESB International has been providing effective and reliable solutions to the wind energy sector for over two decades. We offer a wind farm consultancy solution, incorporating all services required for renewables, and have provided wind energy services in countries such as Egypt, France, Jordan, Malaysia, Romania, Kenya, South Africa and Spain.

TECHNOLOGICAL SERVICES

- Performance benchmarking
- Environmental strategies
- Telecoms infrastructure development
- Asset management systems
- Data analytics
- Techno economic studies

RENEWABLE TECHNOLOGIES

- Wind, biomass, marine, solar, energy from waste
- Conceptual design
- Independent engineer on behalf of utility and financial institutions

EMERGING TECHNOLOGIES

- Battery storage
- e-cars
- Smart Energy Services

Completed Project

Electric vehicle infrastructure
development, Dubai





Picture courtesy of Aquamarine Power Limited

WE SHOULD BE TALKING TO EACH OTHER

To discuss your Strategic Advisory needs, please get in touch with
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