



ECONOMIC  
CONSULTING  
ASSOCIATES



## **solutions for infrastructure**

Due diligence and market assessment services

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ECA provides economic consulting advice in infrastructure services for utilities, investors, governments, regulators and financial institutions worldwide.

## Introducing ECA

ECA has undertaken more than 500 assignments in over 70 countries since 1997. A small selection of these are shown here.

### Market due diligence for power generation projects in Turkey

ECA acted as lenders' advisers to assess the current and future regulatory framework in electricity and gas, long term scenarios for the electricity market including plant dispatch and market prices.

### Financial assessment of electricity distribution companies

Financial due diligence for the Hanoi and Ho Chi Minh City distribution companies ahead of a planned ADB loan to fund transmission and distribution network expansion.

### Market study of gas transmission expansion

Assessment of key regulatory and commercial risks for possible EBRD financing of Macedonian gas transmission expansion systems.

ECA was formed in 1997 to provide economic and regulatory consulting services to industry and government. Since then, we have undertaken more than 500 assignments in over 70 countries, covering large and small developed and emerging markets on all continents.

Our core team of 16 professionals is based in offices in London, Bangkok and Auckland. All permanent staff members hold qualifications in economics, engineering or both, supplemented by many years practical experience. They are supported by an established network of associates with legal, technical and financial expertise.

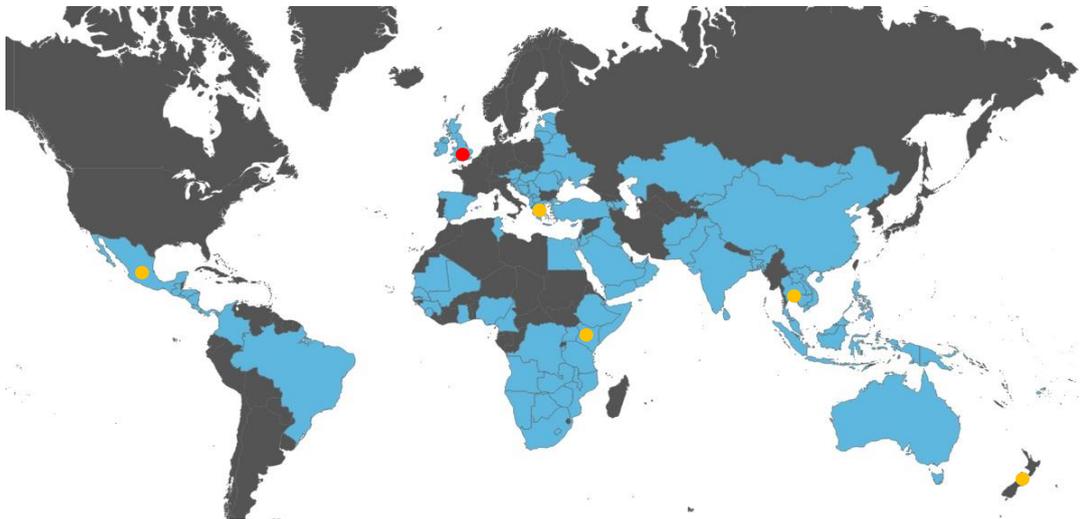
Our approach is focused on providing structured solutions supported by rigorous quantitative analysis drawing in particular on the conceptual insights offered by economics.

ECA's experience has traditionally been strongest in the energy sector but the firm has recently strengthened its expertise in water and urban services with new senior team members. We also have highly relevant experience in multi-sector work including telecoms and transport.

Our wide range of services can be grouped into five main areas:

- ❑ Commercial and regulatory due diligences
- ❑ Policy and strategy advice
- ❑ Markets and regulation
- ❑ Pricing and cost analysis
- ❑ Investment planning and financing

## ECA's geographical presence and experience



### **Renewable energy project due diligences**

Commercial, market and regulatory risk analyses of the Romanian and Bulgarian electricity markets for several large scale wind and solar projects.

### **Turkey power generation market study**

The study covered a review and assessment of the regulatory and market issues in electricity and gas, as well as detailed modelling and analysis of the electricity market and future prices.

Investment appraisals for projects in the water sector in Africa

As the financial and institutional experts for the EIB, ECA advised on the financial sustainability, co-financing opportunities, economic viability, institutional arrangements, and opportunities for PPP for five projects in the water sector in Zambia, Ghana, Burundi and Rwanda.

### **Due diligences**

ECA provides advice to private investors as well as international financial institutions on the major risks for investments in the water and energy sectors. As part of these studies, we assess the key commercial risks on the basis of projected demand dynamics, the major regulatory risks and financial risks of potential investments. Our clients include large international banks, investment funds, independent power generation project developers as well as IFC, EIB, EBRD and the World Bank. We have extensive experience in the power and gas market in Turkey and have also conducted due diligences in South East Europe, Sub Saharan Africa and South East Asia.

### **Policy and strategy advice**

We provide strategy advice to companies and policy advice to governments, working at various levels. Recent examples include the role of the infrastructure sector in alleviating the impacts of the global economic downturn on Botswana, the optimal future fuel mix for Thailand and actions for emerging East Asian economies to improve environmental sustainability and energy supply security.

### **Markets and regulation**

Our market and regulation services are concentrated in the energy sector. Our advice and support to governments and regulators includes conceptual design, impact analysis, drafting rules and operational

assessments for energy markets, network access conditions and connections. In Turkey, for example, we worked with the regulator to develop the initial electricity market design manual. Over five years later, we continue to support the evolving market, most recently on the design of a capacity support mechanism.

### **Pricing and cost analysis**

Pricing and cost analysis is at the heart of much of our work for both private companies and public sector clients — estimating the costs of service and designing tariff structures to recover these in an economically efficient manner. With the increasing spread of liberalised markets, our expertise has extended beyond such traditional pricing studies, to include analysis of the impacts of pricing systems on market competition, customer behaviour and the environmental outcomes. We also advise on addressing affordability concerns including support to low-income households and linking subsidies to the delivery of outputs.

### **Investment planning and financing**

Our investment expertise is grounded in detailed economic and financial analysis of markets. Recent example analyses include a bankable market study of gas storage in Central Europe and the assessment of the benefits of a Black Sea electricity 'ring'. This expertise is supplemented by our experience in designing public and private financing structures.

### Ghana IPP due diligence

Commercial and regulatory due diligence for a gas fired independent power plant in Ghana with a particular focus on assessing the credit worthiness of gas the electricity offtaker.

### Financial feasibility of hydropower plant in Kenya

Financial feasibility assessment covering recommendations on cost of capital, provisions of financial projections and identification of financial risk to the project.

### Gas storage market analysis

For a private client, ECA provided a value of gas in storage given the costs of supply interruptions. The study provided an assessment of the market opportunities and risks for storage, and the resulting economic value of the potential projects.

## Clients

### Companies and enterprises

AES Corporation (United Kingdom)  
 BG Storage and BG Transco (United Kingdom)  
 EdF Energy Networks (United Kingdom)  
 Egyptian Electricity Holding Company  
 Electricity Authority of Cyprus  
 Electricity of Vietnam  
 Elektroprivreda Srbije (Serbia)  
 EnTec Inc (United Kingdom)  
 Energiaki Thessalonikis S.A. (Greece)  
 Enerjisa  
 GDF SUEZ  
 Georgian International Oil Corporation  
 HE&D (Greece)  
 Kenya Power & Light Company  
 Logica (United Kingdom)  
 Marguerite Fund  
 Mytilineos S.A. (Greece)  
 Nigerian National Petroleum Corporation  
 National Transmission and Dispatch Company (Pakistan)  
 PetroBangla  
 PetroVietnam  
 Saudi Aramco  
 Shell / SPDC (Nigeria)  
 SNC-Lavalin (Canada)  
 State Power Corporation (China)  
 TXU Eastern Power and Energy Trading Ltd (United Kingdom)  
 Zimbabwe Electricity Supply Authority

### International financing institutions and agencies

Agence Française de Développement  
 African Development Bank  
 Asian Development Bank  
 Department for International Development (United Kingdom)  
 European Agency for Reconstruction  
 European Bank for Reconstruction and Development  
 European Commission  
 European Investment Bank  
 Global Environment Facility  
 Global Gas Flaring Reduction

Global Partnership for Output-Based Aid  
 GTZ (Germany)  
 Infrastructure Consortium for Africa  
 International Finance Corporation  
 Japanese Bank for International Co-operation  
 KfW (Germany)  
 Know How Fund (United Kingdom)  
 Overseas Private Investment Corporation (OPIC)  
 Public-Private Infrastructure Advisory Facility  
 World Bank Group

### Regulators

Agency for the Regulation of Natural Monopolies (Kazakhstan)  
 Commission for Energy Regulation (Ireland)  
 Croatian Energy Regulatory Agency  
 Egyptian Water Regulatory Authority  
 Electricity Authority of Cambodia  
 Electricity Regulatory Authority of Vietnam  
 Energy Market Regulatory Authority (Turkey)  
 Energy Policy and Planning Office (Thailand)  
 Energy Regulatory Authority (Mongolia)  
 Energy Regulatory Commission (Armenia)  
 Energy Regulatory Office (Kosovo)  
 Ethiopian Electric Agency  
 Israel Natural Gas Authority  
 Lesotho Electricity and Water Regulatory Authority  
 National Electricity Regulatory Commission (Ukraine)  
 Oil and Gas Regulatory Authority (Pakistan)  
 Public Utilities Commission of Sri Lanka  
 Regulatory Authority for Energy (Greece)  
 State Energy and Water Regulatory Commission (Bulgaria)

## Our senior experts



Ray Tomkins

### Ray Tomkins Managing Director

Ray established ECA in 1997. His professional career spans 35 years and includes founding the Energy Policy Research Group at Imperial College, University of London and the energy and environment practice at ERM and London Economics. He leads much of ECA's gas sector work and due diligence work

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Paul Lewington

### Paul Lewington Director

Paul has over 25 years' experience as an energy economist. He is an expert on pricing and cost analysis, recently leading projects on the development of long-run marginal cost estimates for the Cypriot regulatory agency, time-of-use prices for electricity in Egypt and gas pricing strategy in Iraq.

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Peter Robinson

### Peter Robinson Director for Africa

Peter has over 30 years' experience as a consultant in energy, water and telecoms. Based in Zimbabwe for many years, Peter relocated to London in 2007 and maintains a strong focus on Africa. He has worked with senior officials in many countries and has advised several regional institutions on the delivery of urban and water services.

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William Derbyshire

### William Derbyshire Director for Asia

William has 15 years' experience in consulting on utility regulation and energy markets. He has been a long-term advisor to the electricity regulatory agencies in Kosovo and Vietnam as they introduce new power markets. William is based in our Bangkok office.

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Frederik Beelitz

### Frederik Beelitz Director

Frederik is experienced in energy policy issues and energy infrastructure economics. His advice primarily covers financial and commercial analyses, pricing, energy masterplan studies and regulatory economics. Frederik's core area of expertise is in natural gas markets but he is also experienced in the electricity sector, involving projects covering renewable energy support mechanisms, infrastructure programme reviews and social cost benefit analyses.

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## Contact us

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