

## Ivan Gerginov

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<b>Name of Firm:</b>	Econoler	<b>Years with Firm:</b> 9
<b>Profession:</b>	<b>Energy Financing Specialist</b>	
<b>Date of Birth:</b>	January 31, 1976	
<b>Nationality:</b>	Bulgarian	

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### KEY QUALIFICATIONS:

Ivan Gerginov has more than 15 years of experience in energy efficiency financing. For the past ten years, his work has been exclusively focused on the design, implementation, monitoring and impact evaluation of specialized financing mechanisms at the international level.

Mr. Gerginov has designed various dedicated EE financial mechanisms tailored to local markets, ranging from credit lines, investment and trust funds, risk mitigation instruments, insurance products, soft loans, grant-supported financing programs and many others. A number of these mechanisms have already been successfully implemented by various local commercial or development banks, investment funds or government agencies, thus demonstrating the high quality of their design. He is also familiar with providing EE financial and lending expertise to new EU member countries and accession countries.

Furthermore, Mr. Gerginov has managed or has been directly involved in the implementation of such mechanisms, which financed EE projects totalling over EUR 1.2 billion (USD 1.5 billion) through financial products. Additionally, he has conducted evaluation assessments of such programs in different markets and gained specialized expertise for supporting investment banks focused on clean energy and managing dedicated clean energy funds in Europe, especially in the Balkans and Turkey, where he has been very active for the past three years.

He has gained extensive international experience from working in 15 countries in Africa, Asia, the Middle East and Europe on assignments led or financed by major multilateral development banks, such as the African Development Bank, the European Bank for Reconstruction and Development (EBRD), the European Investment Bank, the Inter-American Development Bank, the World Bank, and United Nations agencies. He has also worked with bilateral development organizations, such as KfW and the United States Agency for International Development (USAID), as well as NGOs specialized in clean energy, such as the International Energy Agency and the REEEP.

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### EDUCATION:

2004	M.Sc. Investment Management Cass Business School, London, UK
2000	B.Sc. Finance University for National and World Economy, Sofia, Bulgaria

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### LANGUAGES:

	<b>Spoken</b>	<b>Read</b>	<b>Written</b>
English	Excellent	Excellent	Excellent
Bulgarian	Excellent	Excellent	Excellent
Russian	Fair	Excellent	Fair
Spanish	Fair	Excellent	Fair
Macedonian	Good	Excellent	Good

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**COUNTRIES:**

Antigua and Barbuda, Armenia, Bahamas, Barbados, Belize, Brazil, Bulgaria, Chile, China, Colombia, Dominican Republic, Ecuador, Egypt, Grenada, Jamaica, Kenya, Macedonia, Malawi, Mexico, Morocco, Nigeria, Palestine, Peru, Romania, Russia, Saint Lucia, Serbia, Turkey, Ukraine, United Kingdom, Vietnam and Zimbabwe.

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**PROFESSIONAL MEMBERSHIPS:**

- Member of the Association of Producers of Clean Energy
  - Member of the Board of Trustees of Bulgarian Environmental Partnership Foundation
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**COMPLEMENTARY BACKGROUND:**

- International Energy Efficiency Financing Protocol (IEEFP), Efficiency Valuation Organization (EVO)
  - Trainer for the RETScreen pre-feasibility study software
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**PROFESSIONAL EMPLOYMENT RECORD:**

Since 2009	<b>Econoler</b> , Bulgaria Energy Efficiency Financing Expert
2008-2009	<b>Elana Energy Management</b> , Bulgaria Executive Director
2008	<b>Elana Holding</b> , Bulgaria Procurator
2005-2007	<b>Bulgarian Energy Efficiency Fund</b> , Bulgaria (under a contractual arrangement with Econoler) Executive Director
2004-2005	<b>Prospect Capital</b> , United Kingdom Financial Analyst
2003	<b>Catalyst Partners</b> , United Kingdom Financial Analyst
2000-2002	<b>Elana Holding</b> , Bulgaria Senior Financial Analyst

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**SUMMARY OF EXPERIENCE:***Financing Mechanisms***Agence Française de Développement (AFD), Technical Assistance for the Implementation of the SUNREF Palestine Project, Palestine (2018-2022)**

Team Leader and EE/RE Financial Expert. The objectives of this mandate are to provide support to Palestinian SMEs and large companies in preparing and implementing technically feasible and financially viable EE/RE projects and to assist two local partner banks in preparing technical and financial assessments of proposed EE/RE projects. The project also aims at increasing awareness among the general public and local businesses, promoting the SUNREF Program, as well as developing administrative and technical capacity within the Palestinian Energy and Environment Research Centre (PEC). Econoler is thus carrying out the following main activities: (1) developing a SUNREF Palestine operations manual; (2) preparing technical eligibility assessment reports for EE/RE investment projects whose stakeholders wish to apply for

SUNREF financing; (3) conducting feasibility studies and/or energy audits for projects potentially eligible for SUNREF financing; (4) supporting the local partner banks in marketing SUNREF loan products and identifying potential clients; and (5) improving the technical and administrative capacity of PEC through a series of training activities and hands-on coaching.

**IDB Invest, Technical Support for the Development of A Green Portfolio for the Pacific Savings and Credit Cooperative (COOP Pacifico), Peru (2019)**

Financial Expert. The technical support to COOP Pacifico consists of four activities: 1) Identifying and characterizing green investment opportunities; 2) Supporting the creation of a green financing pipeline; 3) Analyzing the barriers and facilitating elements for the development of the green portfolio; and 4) Delivering training workshops to COOP Pacifico employees.

**Agence Française de Développement (AFD)/Fonds français pour l'environnement mondial (FFEM), Feasibility Study and Assessment of Energy Saving Insurance (ESI) Program Structure, India, Mauritius, Turkey (2018)**

Financing Expert. Assessment, design and justification of an energy saving insurance program targeted at facilitating the implementation of energy efficiency projects initially in three countries, namely India, Turkey, and Mauritius. The mandate also included the preparation of a project commitment note to validate the feasibility of the ESI program in the target countries and to establish a program implementation schedule.

**KfW, Green Credit Line for Small Investments for Renewable Energy and Energy Efficiency Measures, Ghana (2018)**

Financial Expert. Econoler is undertaking a prefeasibility study to assess the viability of financing RE and EE initiatives through the financial sector in Ghana and preparing a proposal of a green credit line. First, Econoler is conducting a pre-feasibility study, including a high-level evaluation of the EE/RE potential present in various sectors. Second, Econoler is conducting a market assessment, including an analysis of the barriers developing EE/RE financing for various sectors. The findings and conclusions will be incorporated in a recommended concept design for the green credit line, which will be presented in a workshop to be attended by KfW, key government stakeholders and representatives of selected financial institutions.

**KfW, Consulting Services for a Solar Home Systems Finance Program Through the Pakistan Microfinance Investment Company (PMIC), Pakistan (2018)**

RE Financial Expert. Econoler is developing a solar home system microfinancing program targeted at poor off-grid households and micro and small enterprises. The assignment involves conducting a comprehensive market study, a SWOT analysis of microfinance providers and distributed energy service companies. The results of this study will then inform the development of three cooperation models between microfinance providers and distributed energy service companies. The final phase of the assignment entails performing a feasibility study of the financing program and suggesting technical assistance measures and capacity building activities.

**Green for Growth Fund (GGF), Corporate Lending Study, Egypt, Jordan, Morocco and Tunisia (2017)**

Team Leader and Financial Expert. The assignment involved conducting a survey to assess the conditions in the corporate asset debt financing markets in four MENA countries and develop a roadmap for making direct financial interventions. The market survey also involved making an analysis of the overall economic status and development dynamics in each of the four countries and a brief overview of the regulatory and institutional "green" financing frameworks in the four countries.

**Agence Française de Développement (AFD), SUNREF Palestine, Market and Feasibility Study for an Energy Efficiency and Renewable Energy Finance Facility, Palestine (2017)**

Financial Expert. Econoler was hired by the AFD to carry out a two-phase project aimed at facilitating the launching of a specialized EE/RE credit facility in Palestine. Phase 1 involved conducting a comprehensive market assessment to evaluate the existing bankable market potential and identify the most promising economic sectors and types of EE/RE projects. Phase 2 involved conducting a feasibility study for the AFD's financing facility. Upon completion of Phase 2, Econoler finished designing the institutional and operational structures of the financing program and its technical assistance component.

**The World Bank, Morocco Public Lighting Transformation Program, Morocco (2016-2018)**

Financial Expert, The assignment's main objective is to assist the Government of Morocco in designing a sustainable Morocco Public Lighting Transformation Program using a public-private partnership (PPP) approach. As part of the assignment, Econoler is reviewing, analyzing and assessing the national public-lighting market size, its demand, the framework conditions for public lighting projects and their implementation models. In the course of this project, Econoler will be disseminating global, regional and national best practices and lessons learned by holding several workshops with the relevant stakeholders at various stages of the project to provide relevant knowledge and capacity building. Upon completion of this assignment, Econoler is expected to have designed a project implementation model in support of the energy efficiency transformation of Morocco's public-lighting sector, based on Morocco's current context and international best practices.

**Inter-American Development Bank (IDB), Design of Distributed Generation of Renewable Energy and Energy Efficiency Fund, Brazil (2016-2017)**

Financing Expert. The project consisted of analyzing the investment cycle of the public sector at the state and municipal levels to design standardized financing mechanisms that could not only facilitate the implementation of DGRE and EE projects in public sector in the different States of Brazil, but also enable replication and scale-up.

**World Bank, Integrated RE & EE Financing Options in the Municipalities of Rio de Janeiro and Belo Horizonte, Brazil (2016-2017)**

EE Financing Specialist. This assignment consisted of assessing the viability of Brazil installing solar rooftops and implementing energy efficiency projects at the municipal level under alternative methods of procuring, financing, and executing projects, as well as identifying key risks and barriers to investment to ultimately select the most appropriate business and financing models for the municipalities of Rio de Janeiro and Belo Horizonte.

**Inter-American Development Bank (IDB), Funding and Implementing Mechanisms for EE projects, Latin America and the Caribbean (LAC) (2016-2017)**

Financial Expert. Econoler's assignment was to support IDB's Energy Division in the following tasks: (1) drafting and reviewing EE-related reports, documents, and publications for dissemination of EE-related knowledge products and best practices; (2) designing an EE-dedicated financing mechanism and proposing a pilot program for EE funding mechanisms for the LAC countries under the SE4All initiative; and (3) supporting institutional capacity-building in the LAC region.

**Global Climate Partnership Fund S.A., Supporting Chase Bank Kenya in Enhancing EE and RE Lending, Kenya (2016)**

Team Leader and Financial Expert. Econoler was commissioned by the Global Climate Partnership Fund SA (GCPF) (through its manager, ResponsAbility AG) to support Chase Bank Kenya in refining its clean-energy finance strategy and successfully implementing the GCPF credit line. Econoler's principal objective was to enhance Chase Bank's EE and RE lending strategy and practices by developing a robust clean-energy finance strategy and strengthening the bank's technical capacity through a series of training workshops. To fulfill its project commitments, Econoler: (1) performed desk research to study the potential for EE/RE investments in Kenya; (2) prepared an in-depth clean-energy finance strategy paper; (3) trained the bank's staff on how to identify EE/RE lending opportunities, assess eligibility and collect relevant information; and (4) developed a detailed clean-energy finance strategy action plan.

**State Secretariat for Economic Affairs (SECO), Strategy Review of the SECO Green Credit Trust Fund, Colombia, Peru and Vietnam (2016)**

Financial Expert. SECO commissioned Econoler to (1) conduct a strategic review of the Green Credit Trust Fund (GCTF), an instrument to promote SME investments in cleaner production (CP), energy efficiency (EE) and renewable energy (RE), (2) make a set of recommendations based on the review findings to SECO regarding the relevance of GCTF; (3) if GCTF is still considered relevant based on the review findings, suggest 2 or 3 comprehensive country-specific design options with clear additionality, such as financing mechanisms and/or technical assistance to foster CP, EE and RE investments by SMEs.

**Republic of Colombia, the Ministry of Mines and Energy (MinMinas) and *Financiera del Desarrollo Territorial S.A. (FINDETER)* - Represented by KfW, EE-RE Fund Structuring, Colombia (2015-2017)**

Team Leader. The project consisted of two major phases. **Phase 1:** Fund-structuring Services for *Fondo de Energías No Convencionales y Gestión Eficiente de la Energía* (FENOGE) of the Republic of Colombia: MinMinas had asked KfW for support for the structuring of the FENOGE in compliance with the existing regulation, specifically the design and drafting of the Operations Manual. Econoler was hired by KfW to develop the Operations Manual and other relevant documents. **Phase 2:** KfW hired Econoler to develop a new financial product dedicated to RE/EE for FINDETER. Econoler assessed the RE/EE market of FINDETER's priority areas, namely biomass-fired cogeneration, biomass boilers, public lighting and small-scale hydroelectric generators. Then, the RE/EE credit product was developed for the most promising technologies. To complete the credit product design, a technical assistance package was also developed.

**United Nations Development Programme (UNDP), Improving Energy Efficiency Financial Mechanisms for Industry, Turkey (2013-2016)**

Senior EE Financing Expert. Econoler was hired to develop new individual EE financial mechanisms that are adapted to the needs of the Turkish market and can be implemented by Turkish agencies YEGM, KOSGEB and TTGV. More specifically, Econoler assessed the Turkish industrial sector's EE funding needs, identified a range of financial mechanisms, examined the potential solutions to transform funding mechanisms into revolving funds and proposed suitable monitoring and evaluation systems. Towards the end of the project, Econoler led a study tour with Turkish officials in Mexico to provide them with an insight about the financing mechanisms that were implemented in Mexico.

**Agencia Chilena de Eficiencia Energética (AChEE), Adjustment of Financial Instrument FOGAEE to Current and Future Market Conditions, Chile (2015)**

Financial Expert. Further to their assessment of the FOGAEE and the EE Chilean market, ATS Energía and Econoler proposed: (1) adjusting the terms and conditions of FOGAEE to the Chile's current EE market for better project implementation; and (2) developing an implementation plan to support the early stages of the proposed adjustments. The team also established the budget based on the proposed adjustments and assessed their impact.

**Raiffeisenbank (RB) EAD/KfW, Small and Medium Enterprises (SMEs) Finance Facility Energy Efficiency (SMEFF-EE) Window, Bulgaria (2014-2015)**

Team Leader. The objectives of the assignment were to: (1) support SMEs in preparing and implementing their EE sub-projects; (2) assist the RB and, if necessary, the SMEs in preparing financing applications for their sub-projects, for which the SMEs intended to take a loan; and (3) help implement those sub-projects subsequently financed by a KfW credit line. More specifically, Econoler carried out the following main activities: (1) preparing EE sub-projects; (2) conducting feasibility studies and/or energy audits and verifying EE sub-projects; (3) supporting the RB in identifying potential clients interested in investing in EE measures; and (4) developing an Operations Manual (including a list of eligible measures and equipment [LEME]) and software tools for sub-project assessment.

**KfW Entwicklungsbank, Feasibility Study for KfW's New Eco-Loans Program, Serbia (2014-2015)**

Senior EE Financing Expert. Econoler was mandated to help KfW develop a new Eco-Loans program aimed at broadening and enhancing access to energy efficiency/renewable energy financing for micro, small and medium-sized enterprises (MSMEs), households and municipalities. To fulfill this mandate, Econoler performed the following tasks: 1) conducted a field study to gather the information required to develop the program concept; 2) prepared a program-concept proposal; 3) recommended parameters for KfW's new Eco-Loans program; and 4) estimated this program's potential financial and environmental impacts and assessed the anticipated program-implementation risks.

**KfW, Financial Sector Symposium "Greening the Financial Sector from Demonstration to Scale in Green Finance", Worldwide (2013-2014)**

Financial Expert. For the 2014 KfW Financial Sector Symposium in Berlin, Econoler's expert Ivan Gerginov prepared and presented a paper entitled "How to make green finance a mainstream banking product." The paper focused on Econoler's experience in financing EE initiatives and what mechanisms apply to micro, small and medium-sized enterprises (MSMEs) and retail lending. The paper was published in the KfW conference volume.

**Inter-American Development Bank (IDB) – Multilateral Investment Fund (MIF), Designing and Structuring of an Energy Efficiency Facility, Colombia (2014)**

Team Leader. Econoler was mandated to provide the IDB/MIF with technical and legal backstopping and

strategic advice on the designing and structuring of an EE facility, including support for developing: 1) the most appropriate legal structure design for this energy efficiency facility; 2) the financial products that this facility should provide; 3) a financial model of investment for the facility; 4) a methodology for estimating GHG emission reductions; 5) the lending manual, guidelines and eligibility criteria; and 6) the requirements to follow when monitoring energy savings and GHG reductions.

**Tetra Tech, Energy Efficiency Fund Guidelines, Serbia (2013-2014)**

Senior EE Financing Expert. Econoler was commissioned by Tetra Tech under a USAID initiative to assist the Ministry of Energy (MOE) of Serbia in developing an energy efficiency (EE) fund by carrying out the following activities: (1) holding meetings with the relevant stakeholders to discuss the rationale for developing an EE fund in Serbia; (2) providing an overview of the market targeted by the EE fund; (3) making recommendations on the fund's market-positioning; (4) drafting a concept paper for the proposed fund; (5) developing a fund design together with guidelines for developing a general framework agreement between the MOE and the selected partner banks.

**International Finance Corporation (IFC), Sustainable Energy Finance (SEF) Program Market Assessment, Barbados, Belize, Grenada, Jamaica, Saint Lucia (2013-2014)**

Senior EE Financing Expert. Econoler was mandated to assess market opportunities for SEF in the Caribbean region and to support the structuring of the components and activities of the SEF Caribbean Program. This assessment consisted of the following activities: 1) establishment of the conceptual framework; 2) identification and analysis of market segments to be prioritized; 3) identification of major market barriers and recommendations for their mitigation; 4) assessment of the readiness of the financial sector. At the completion of this project, Econoler proposed a methodology to IFC on how to maximize the energy and water efficiency financing potential.

**Kreditanstalt Für Wiederaufbau (KfW), Consulting Services for Assessing the Design and Development of a *Caixa Econômica Federal* Program to Promote Energy Efficiency, Brazil (2013-2014)**

Senior Financial Specialist. Econoler was mandated to provide assistance to *Caixa Econômica Federal* in developing an EE financing mechanism by conducting the following activities: 1) an analysis of the EE market; 2) a detailed analysis of *Caixa Econômica Federal*; 3) selecting and justifying the selection of the target market sectors; 4) the detailed design of an EE credit line of up to EUR 150 million intended for medium and large enterprises for Caixa; and 5) the detailed design of a tailored technical assistance package worth up to EUR 4.5 million for Caixa and other market stakeholders.

**International Finance Corporation (IFC), Sustainable Energy Finance Program Market Assessment, Egypt (2013-2014)**

Senior EE Financing Expert to support the IFC in the market evaluation for EE/RE in Egypt, Econoler was mandated to carry out the following activities: 1) assessing market opportunities for sustainable energy financing (SEF) for 5 priority sectors in the industry; 2) identifying business models to develop/support SEF lending programs with financial institutions (FIs) in Egypt.

**African Development Bank (ADB), Long-term Debt Financing to Two Nigerian Banks, Nigeria (2013)**

EE Financial Expert. Econoler helped key bank personnel measure the benefits of renewable energy (RE) and energy efficiency (EE) project in the Nigerian market, develop a pipeline for the participation of SMEs in RE/EE financing projects and ensure that financing pipelines satisfy the requirements of the Clean Technology Fund (CTF).

**United Nations Development Programme (UNDP), Financial Mechanisms Study, Turkey (2013)**

Senior EE Financing Expert. The project aims to improve the financial mechanisms for EE in Turkey through benchmarking with programs and instruments that have been implemented in other parts of the world. As part of the assessment, a large number of EE support programs and financing mechanisms in different countries were evaluated; those that target similar barriers or operate in a market environment similar to that in Turkey were identified.

**Inter-American Development Bank (IDB), Preparation of a Policy Note on the Financial Instruments for Energy Efficiency and Renewable Energy, Bahamas and Barbados (2013)**

Financial Expert. The project included an analysis of each country's energy market, the calculation of energy savings and renewable energy production potential by sector and recommendations on financial instruments adapted to each market.

**KfW Entwicklungsbank, Development of RE and EE Loan Programs for Local Financial Institutions, Nigeria (2012-2013)**

Senior EE Financing Expert. Econoler was mandated first for the pre-feasibility study, and second for the feasibility study, to support KfW in evaluating the market for RE/EE and carried out the following activities: 1) The institutional and regulatory framework analysis; 2) EE/RE market analysis and evaluation of the EE/RE potential; 3) Financial market assessment, particularly RE/EE financial products offered to SMEs. Econoler further proposed a structure by which to adapt a green credit line to the Nigerian EE/RE context and financial market.

**Inter-American Development Bank (IDB), Technical Support Consultant on Financial Instruments for Energy Efficiency, Latin America (2012-2013)**

Senior EE Financing Expert for the development of energy efficiency financing products to support the IDB team in reviewing existing instruments and experience. The assignment also included the preparation of reports and technical notes to be presented to various stakeholders in Latin America and the Caribbean (LAC) in order to inform them about the different opportunities to support the implementation of energy efficiency projects in their respective countries.

**Global Climate Partnership Fund / Banco de Pichincha, Design and Implementation of an Energy Efficiency and Renewable Energy Credit Line, Ecuador (2011-2012)**

Senior Financial Expert for the design of several dedicated energy efficiency and renewable credit products for Banco Pichincha and the implementation of these products in the lending operations of the Bank. The assignment included conducting capacity-building activities for the staff of the bank and carrying out project evaluations.

**International Finance Corporation (IFC), Sustainable Energy Financing Program in BHD, Dominican Republic (2010-2012)**

Financial Expert. The project was to support the Banco BHD in the development of a sustainable energy financing and carrying out the necessary changes in the organization to deliver financial product dedicated to energy efficiency, including training of the bank personnel and energy audits at the bank's clients' facilities.

**KfW / China EximBank, Energy Efficiency and Renewable Energy Credit Program, China (2009-2012)**

Principal Expert for providing technical assistance to the China EximBank (Program Executing Agency) and potential clients in the implementation of a credit line and the introduction of a new credit product for financing energy efficiency and renewable energy projects.

**JSC ESCO TyumenEnergo (TE), Support for the Development of ESCO Activities, Russia (2011)**

Technical Expert. Econoler's mandate consisted in developing a training program and delivering capacity-building sessions to TE's technical and financial team. The training sessions covered four modules: Investment grade audit, ESCO energy performance contracts (EPC), energy project financing and the International Performance Measurement and Verification Protocol (IPMVP).

**European Investment Bank, Guidance for Procuring Public-Private Partnerships (PPPs) in Energy Efficiency in Public Buildings (2011)**

Financial Expert. The assignment consisted in developing a guidance document to assist PPPs task force in promoting the concept of energy performance contracting, in addition to supporting project promoters and procuring authorities for the development and implementation of PPPs in energy efficiency in public buildings.

**International Energy Agency, Handbook Preparation (2011)**

Financial Specialist for this assignment, which consisted in preparing a handbook aimed at helping policy makers implement energy efficiency financing and scale up the overall level of energy efficiency financing. Main areas of focus included preferential-rate loans, risk sharing facilities and third party ("ESCO") financing.

**Kreditanstalt Für Wiederaufbau (KfW), Study on the Development of a Credit Line to Promote the National Energy Efficiency Market, Brazil (2011)**

Financial Specialist. Econoler conducted a sound study of the national energy framework with the aim to identify opportunities for energy efficiency financing and to define a tailored credit line for target stakeholders involved in this market sector.

**Fundación Chile, Business Model of a Private Investment Fund for Energy Efficiency and Renewable Energy, Chile (2010-2011)**

Senior Financial Expert on EE/RE financing for preparing a business model and a structure for the new Energy Efficiency and Renewable Energy Financing Fund (Chilean Ecoefficiency Fund – CEF). The assignment included adapting the CEF to the Chilean market, developing financial strategies, a range of financial products and a detailed handbook intended for *Fundación Chile* for the implementation of the CEF.

**Elana Energy Management (2008-2009)**

Established and structured Elana Energy Management (EEM), the energy business of Elana Group. The company was involved in project development, management and financing of renewable energy projects. Development track record, including structuring of project structure and financing schemes.

*Carbone Finance***Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Diagnostic Study of the Role of the Financial Sector in Climate Finance, Costa Rica (2017)**

Financial Expert. GIZ commissioned Econoler to conduct a diagnostic study to assess the current participation of Costa Rica's financial sector in climate change finance, identify the barriers, and outline the options to strengthen the financial sector's role in mobilizing climate change finance, particularly in the private sector.

*Energy Efficiency Financing***Organisation for Economic Co-operation and Development, “Sector Competitiveness Strategy for Ukraine” – Peer Review, Ukraine (2015)**

Senior EE Financing Expert. Econoler was hired as one of three peer reviewers of Eurasia Competitiveness Programme for Ukraine developed by the OECD. The peer review was particularly focused on the financial aspects of energy efficiency and sustainable energy development and the possibility of transferring best practices to Ukraine.

**Inter-American Development Bank (IDB), Advisory Services on Public-Private Partnerships for Energy Efficiency in Public Buildings, Institutions (2010)**

Financial Expert. Econoler was asked to provide a written opinion on the potential of the program to achieve the objectives set out by Clean Technology Fund (CTF), for the purpose of the request validation from CTF.

*Energy Fund Design and Management***Inter-American Development Bank (IDB)/Multilateral Investment Fund (MIF), Colombian Energy Efficiency Trust (CEET) Due Diligence of Three ESCOs, Colombia (2015-2016)**

Financial Expert. Econoler assisted IDB and MIF project team during the due diligence process performed on three participating ESCOs (Garper Energy Solutions, E2 Energia Eficiente and Azimut Consultores) to review the ESCOs' history, track record, project identification and project cycle, and legal contracts used, among other things. Econoler assessed the ESCOs' capacities to participate in the CEET and provided recommendations for improvement prior to such participation.

**The Organization of American States (OAS)/Global Environment Facility (GEF), Capacity Building Support for SIRF Fund, Antigua and Barbuda (2015-2016)**

Fund Management Specialist. Econoler was commissioned to support the development of the SIRF Fund by assessing the SIRF staff's internal capacity, designing a training package to facilitate the project negotiation process and developing a manual with guidelines on how to conduct due diligence on proposed investments, risk assessment, monitoring and evaluation (M&E) of RE operations and cash flow monitoring and accounting.



**The International Bank for Reconstruction and Development (IBRD), Impact Assessment of the Clean Technology Fund, Turkey (2012)**

EE and RE Evaluation Specialist. Econoler was mandated to measure the Clean Technology Fund (CTF) program's impact on the growth of the energy efficiency (EE) and renewable energy (RE) market. Based on the findings of this assessment, Econoler recommended installing an integrated system of monitoring and evaluation (M&E). This mandate allowed Econoler to provide the Turkish government with all the required information regarding the mechanisms employed to effectively monitor the impact of the policies and various EE and RE support programs undertaken by the government.

**Energy Efficiency and Renewable Sources Fund (EERSF) (formerly the Bulgarian Energy Efficiency Fund) (2005-2007)**

The Energy Efficiency and Renewable Sources Fund (EERSF) is a public (owned by the state) fund, privately managed. It was established through the Energy Efficiency Act adopted by the Bulgarian Parliament in February 2004 and started operations in 2005. The initial capitalization of EERSF is entirely with grant funds, its major donors being: the Global Environment Facility through the World Bank; the Governments of Austria and Bulgaria and private donors. EERSF has the combined capacity of a lending institution, a credit guarantee facility and a consulting company.

Management of the fund from its first day of operations, including:

- Internal structure and personnel
- Structuring of the financial products of the fund, including a specific one for ESCOs
- Setting up partnerships with commercial banks
- Building up pipeline of projects

In its first two years of operations the fund was awarded a number of times:

- 2006: Awarded by the Bulgarian Energy Efficiency Agency "Nr. 1 specialized financial institution for energy efficiency financing"
- 2007: Rated by the World bank as "highly satisfactory (or best practice) operation, whose design and implementation should be disseminated internationally"
- 2008: Rated for the second time by the World bank as "highly satisfactory"

*Project Finance*

**Prospect Capital, London UK (2004-2005)**

Project finance deals in Central and Eastern Europe, including structuring of flexible financing mechanisms for mergers and acquisitions, carbon credit deals, Private Equity Finance structures.

*Specific projects:*

**Oil refinery in Port Harcourt, Nigeria:** Upgrading of certain facilities in the refinery, improving energy and manufacturing efficiency and capitalizing on the realized savings in GHG emissions. Project managing the entire process, liaison with the federal and state governments of Nigeria (the client). Coordinating the actions of the local and foreign consultants.

**Coal power plant in Nigeria:** Government project for the construction of a power plant run on natural gas. Project management regarding valuation of the expected reductions in emissions of GHGs, packaging the credits into a bankable instrument and sale. Coordinating the efforts of eco consultants, local authorities (the designated national authority of Nigeria) and local consultants.

**Catalyst partners, London UK (2003)**

Project finance deals in Central and Eastern Europe, including Bridge Financing, M&A and takeover deals.

*Innovative Energy Efficiency Performance Contracting (ESCOs)*

**European Bank for Reconstruction and Development (EBRD), ESCO LED Street-lighting PPP Project in the City of Belgrade, Serbia (2016-2017)**

Financial Expert. Conducted a feasibility study to identify and define the scope of a bankable and commercially viable LED street-lighting project to be implemented by an ESCO in the City of Belgrade, and provided support for the project's implementation by developing the PPP project contracts and all the related tender documentation needed by the City in the tendering and procurement phase.

**Ministry of Energy and Natural Resources, Preparation of Guidelines for EPC Contracting for ESCOs and Case Study Development, Turkey (2015-2017)**

Project Manager and Financial Expert. Econoler helped identify and promote alternative energy performance contracting (EPC) models better suited to the Turkish context. This was achieved by assessing the ESCO markets in the private sector, identifying the major barriers and recommending measures to address these barriers, including necessary key changes in Turkey's legislative framework. Adapted tools for facilitating the use of EPC in the country were also developed in the course of the assignment. In addition, an analysis of the energy efficiency market's potential was made to provide the government with additional information.

**European Bank for Reconstruction and Development (EBRD), ESCO/EPC Project Preparation and Public-sector Project Pipeline Development, Serbia (2014-2017)**

Financial Expert. Econoler assisted six municipalities and other public agencies (the clients) in developing and implementing 12 energy performance contracting (EPC) projects in three market segments (street lighting, public buildings and water and wastewater utilities). For each EPC project, Econoler experts were in charge of developing management tools, estimating energy savings, preparing the contract and tender documentation and carrying out a financial analysis.

**ABB, Design and Implementation Support for the Energy Performance Contract (EPC) Business Model, Worldwide (2010-2013)**

Senior EE Financing Expert. Econoler developed a general business model for applying the energy performance contract (EPC) in ABB's activities. The mandate involved carrying out the following tasks: designing appropriate contracts and strategies related to the measurement and verification of the savings generated; developing a suitable financial mechanism; providing support to demonstration projects; providing support for the preparation of proposals in response to calls for tenders; providing training and support to various actors within ABB on EPC-related matters.

*Monitoring and Evaluation of Projects and Programs***Agence Française de Développement (AFD), Evaluation of the Energy Sector Framework 2012-2016, France (2016-2017)**

Financial Expert. The Energy Sector Framework (CIS: Cadre d'Intervention Sectoriel) describes how the AFD orients its energy sector activities over three-to-five year periods according to the needs of the sector and the regions covered. This project included analyzing the strategy and projects granted by the AFD, conducting interviews with AFD stakeholders and other large-scale financial backers and comparing their strategies, financial and operational tools, project support policies, and the formulation of recommendations in preparation for the next edition of the CIS document.

**Groupe-conseil baastel (Baastel), Terminal Review of the Environmental Business Finance Program 1968, Global (2016)**

Financial Expert. Conduct the terminal review of IFC Environmental Business Finance Program, a ten-year GEF-funded program that concluded in mid-2014. The evaluation included the review of all program documents, conducting interviews with all stakeholders, analysing market information and reviewing the impact from a sample of projects implemented under the program. A final assessment was delivered highlighting the program accomplishment, the effectiveness of its operation and management and lessons learned for replicating such program in the future.

**Inter-American Development Bank (IADB), Technical Assistance for Independent Review of Mexico's ECOCASA Program Proposal to the Clean Technology Fund (CTF), Mexico (2012)**

Financial Expert. The Inter-American Development Bank (IADB) designed a new Energy Efficiency Program for Mexico, which included CTF financing. Econoler's mandate was to review the program design and provide an objective opinion about the following: stated objectives in the program; program criteria for CTF support; program proposal for Mexico's entitled "ECOCASA"; and potential of the program to achieve its stated objectives.

*Market Study***The World Bank, Market Assessment and Development of an Energy Efficiency Financial Calculator for Commercial Banks, Turkey (2012)**

Senior EE Financing Expert. Econoler was mandated by the World Bank to develop an Excel-based EE calculator to help loan officers effectively identify EE project applications that comply with pre-defined IBRD eligibility criteria. The tool was expected to enable sales staff of partner banks to quickly assess the projected energy savings to be realized by potential EE projects and demonstrate to the client the benefits of implementing such projects. Econoler conducted a market study of priority sectors to assess the efficiency levels of current equipment in these sectors and to determine the energy savings potential associated with the implementation of a wide range of EE measures. The findings were integrated in an EE calculator and presented to market stakeholders and banks at a workshop in Istanbul. The tool was then circulated among the partner banks and key staff was taught how to use it.

*Energy Efficiency in the Water Sector***World Bank, Water Treatment Plant Energy Efficiency Technical Support program, Romania, Serbia and Ukraine (2013-2015)**

International Financial Expert. Assignment activities included the following: (1) design of a capacity-building program intended for over 40 utilities, in collaboration with national water treatment plant associations in the targeted countries; (2) technical assistance to the selected utilities in developing an energy-efficiency audit and an associated investment plan; (3) technical assistance in developing adapted financing for each project, based on the financing facilities available in the selected utilities' respective countries; and (4) overall support for project implementation. The project achieved satisfactory results: of the 36 participating utilities, 18 succeeded in completing an energy audit. Eight projects had investment committed, reaching a total of EUR 2,362,920.

*Project Design, Development and assistance in the Implementation***Ministry of Infrastructure Development, Consultancy Services for Upgrading the Federal Street Lighting System Aimed at Conserving Energy, United Arab Emirates (2018)**

Financial Expert. Econoler provided support to the Ministry of Infrastructure Development (MOID) to procure services for the upgrade of roadway lighting and other identified infrastructure for federal highways through an appropriate public-private partnership (PPP) procurement approach. The project included a survey of streetlighting equipment over 750 km of roads. Using the survey information, a feasibility study was developed to recommend energy efficiency upgrades to the current system. Econoler also selected the right PPP arrangement for UAE federal roadway infrastructure by considering the most cost-effective model for managing roadway lighting system extensions.

*Energy Efficiency***GIZ, Energy Efficiency Strategy and Action Plan for Public Municipal Buildings, Ghana (2017-2018)**

Financial Expert. Design of an energy efficiency (EE) strategy and action plan delineating a clear strategy with short, medium, and long-term objectives and milestones for municipal public buildings in Accra, with the aim of ensuring sustainable development and enhancing urban resilience. Tasks included the design of an investment financing scheme to enable the implementation of the EE measures suggested in the action plan, the organization of training on walkthrough audits and appropriate EE measures for buildings, as well as a workshop to raise awareness on the importance of EE among youth and enhance the interest of young women in technical careers. A dissemination workshop to share project outcomes and increase overall awareness on EE issues in the municipalities of the Greater Accra Region was also organized. The project contributed to Ghana's Nationally Determined Contribution target of doubling the rate of EE. The project also helped relieve the energy constraints that hampered economic growth.

**Inter-American Development Bank, Capacity Building Booklets for Energy Efficiency Practitioners in the Latin America and Caribbean Region (2010-2012)**

Financial Expert in charge of drafting eight best practice booklets for energy efficiency practitioners in the LAC Region on the following topics: financing mechanisms; programme design; programme implementation; programme monitoring and evaluation; energy efficiency market studies; standards and labeling programmes; project performance measurement and verification activities; energy service performance contracts.

### *Energy Efficiency Policy*

#### **The World Bank (WB) Energy Sector and Management Assistance Program (ESMAP), Macedonia Municipal Energy Efficiency Promotion Consultation to Provide Technical Support for Energy Efficiency Planning and Pilots, Macedonia (2015-2016)**

Financial Expert. Econoler assisted Macedonian municipalities in drafting EE Program and Action Plans by identifying and implementing EE opportunities in the water supply and sanitation, street-lighting, and public building sectors. To achieve this assignment's objectives, the project team provided specific support in conducting pre-feasibility studies, overcoming regulatory barriers to EE investment and securing financing under the public-private partnership (PPP) scheme.

#### **Armenia Renewable Resources and Energy Efficiency Fund (R2E2 Fund), Development of a Second National Energy Efficiency Action Plan (NEEAP), Armenia (2015)**

Financial Expert. Econoler was asked to develop the second NEEAP for the 2015-2017 period. The project team developed a comprehensive list of energy efficiency (EE) measures categorized by sectors and set energy savings targets for each of them. The program also included an institutional framework, implementation strategy, promotion and marketing actions, clearly stating the authority and responsibility of each public body.

#### **World Bank, National Building Energy Efficiency Study, Serbia (2012)**

Financial Expert. The assignment consisted in assessing the EE market for the building sector in Serbia and proposing a set of recommendations around target markets, remedies to market barriers, institutional arrangements and financing mechanisms.

### *Renewable Energies*

#### **African Development Bank (AfDB), Support to SE4ALL Country Action Processes in Zimbabwe and Malawi (2015-2017)**

Financial Expert. Zimbabwe and Malawi demonstrated commitment to start developing a SE4All Action Agenda and Investment Prospectuses. Econoler, in collaboration with Deloitte, was commissioned to support the two countries by carrying out the following key tasks: (1) Conducted an overall review of the Zimbabwe Malawi energy sectors and assessed EE/RE potential at the national level; (2) Identified and prioritized action areas and designed an implementation mechanism; (3) Developed a national capacity-building and institutional support plan to ramp up EE/RE implementation as well as energy access programs and projects for both countries; (4) Reviewed the existing energy access, EE/RE financial support programs/credit lines and identified potential financing sources; (5) Mapped international climate finance institutions and financing opportunities suitable for both countries; (6) Prepared a long list of potential EE/RE access and transport investment projects, performed preliminary financial analyses, and presented the project pipeline to potential investors.

### *Energy Audits*

#### **The World Bank, Evaluation and Identification of a Pipeline of Cities for Structuring PPPs for Public Street-lighting in Brazil, Brazil (2017-2018)**

Financial Expert. Econoler is providing support to the World Bank and the Caixa Econômica Federal in evaluating and identifying about 10 cities in Brazil interested in developing public-private partnerships (PPPs) to modernize their street-lighting systems, including conducting pre-feasibility studies, preparing a toolkit for future pre-feasibility studies and providing the selected cities with support in drafting legal regulations governing PPPs for street-lighting.

*Training***United Nations Industrial Development Organization (UNIDO), Training Programs in Energy Efficiency and Renewable Energy Applications for the Industrial Sector, Pakistan (2017-2018)**

Trainer and Financial Expert. Econoler supported the UNIDO in building capacity among the current energy experts, consultants, executives and other professionals in Pakistan to bring them up to par with the international standards, by developing and conducting training events on the ISO 50001 Energy Management System (EnMS), as well as industrial EE/RE applications and finance.

**United Nations Industrial Development Organization (UNIDO), EE/RE Finance Training for Local Financial Institutions, Egypt (2016-2017)**

Team Leader and Financial Expert. Econoler was contracted to develop, coordinate and deliver a capacity building program for Egyptian banks on sustainable energy financing as well as a train-the-trainer module for local experts. The training program consisted of six activities:

- Developing a training methodology for trainees from different backgrounds;
- Developing training curriculum and materials for the training modules;
- Delivering training courses for groups of trainees from various backgrounds;
- Developing and delivering a train-the-trainers program;
- Coordinating a study tour for 15 representatives of the Egyptian banking and governmental sectors, showcasing the experience of Tunisia in successful implementation of mechanisms and instruments for EE/RE project financing;
- Developing an action plan for the ensuing five years to ensure the sustainability of the delivered training activities.

**Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Capacity Building for the Municipality of Skopje, Macedonia (2012)**

Senior EE Financing Expert. Econoler was mandated by the GIZ to conduct capacity building activities for the municipality to help raise funds to implement EE projects in 22 public-sector buildings in the municipality. Econoler carried out the following two activities: 1) Conducted a two-day workshop on EE financing in public-sector buildings and 2) Developed a package of template documents for structuring the available technical and other information on the municipal buildings in a bankable format for the municipality to use in approaching local and international banks for financing.

**LECTURES:**

“How to make Green Finance a mainstream banking product” – KfW Financial Sector Development Symposium, Berlin, January 30-31, 2014

“Financing of Energy Efficiency Investments, 5<sup>th</sup> Energy Efficiency Forum and Fair, Istanbul, Turkey

“Is there a lack of financing, lack of trust, or a lack of excitement in EE program financing”, Arab Forum on Renewable Energy and Energy Efficiency, Cairo, Egypt, 2012

EE Financing Mechanisms from around the World, The 10<sup>th</sup> JRC workshop on Energy Efficiency Policies, Moscow, Russia, 2012

Designing and Implementing Energy Efficiency Funds, Experience with Innovation from around the world, Asia Clean Energy Forum, Manila, Philippines, 2011

Energy Efficiency / Renewable Energy Bank Training Workshop, China EXIM Bank, Lijiang, China, 2010

Flexible Energy Efficiency Financing instruments (the China and Bulgaria Experience), Asian Development Bank, Manila, Philippines, 2010

Energy Efficiency / Renewable Energy Bank Training Workshop, China EXIM Bank, Beijing, China, 2010

Energy Efficiency / Renewable Energy Bank Training Workshop, China EXIM Bank, Wuhan, China, 2010

Energy Efficiency / Renewable Energy Bank Training Workshop, China EXIM Bank, Qingdao, China, 2010

The Bulgarian Energy Efficiency Fund – Development of the Bulgarian Energy Efficiency Market, UNECE, Steering Committee EE21, Geneva, Switzerland, 2008

Financing mechanisms for Energy Efficiency, In-depth review of the EE policies of Bulgaria, Sofia, Bulgaria, 2008

Financing mechanisms for Energy Efficiency, International conference “Energy and Climate” the new priorities, St. Konstantin & Elena Resort, Bulgaria, 2008

Bulgarian Energy Efficiency Fund - Financing of Energy Efficiency Investment Projects and Pre-financing for EU Operational Programs, 4<sup>th</sup> Congress of EE and RE, Sofia, Bulgaria, 2008

Bulgarian Energy Efficiency Fund – a tool for reducing GHG emissions in Bulgaria, Round table – National plans for GHG emission allocations 2008-2012, Sofia Bulgaria, 2008

Flexible approach to financing Energy Efficiency, ESCO Europe 2007, Nice, France, 2007

Bulgarian Energy Efficiency Fund, a model project of the World Bank in CEE, Workshop on Results of World Bank Operations in Bulgaria 2007, Sofia, Bulgaria, 2007

Wind Project Development Cycle, National seminar “Wind Project Development in Bulgaria, Sofia, Bulgaria, 2007

Flexible financial structures for Energy Efficiency and Renewable Energy Investments, 6<sup>th</sup> National Conference of Energy Efficiency and Renewable Energy “Energy Efficiency and Environment”, Sofia, Bulgaria, 2007

Financing Energy Efficiency, 5<sup>th</sup> Annual Conference for Central and Southeast Europe “The Future of CSEE Energy Markets”, Sofia, Bulgaria, 2007

Financing Energy Efficiency, Seminar Energy Efficiency in Buildings and technical certification of buildings, Stara Zagora, Bulgaria, 2007

Energy Efficiency and Competitiveness of companies, Economic Forum Maritsa “Bulgaria in the EU, new business opportunities” – Plovdiv, Bulgaria, 2007

Financing Co-generation projects, National cogeneration day “Intelligent Energy – Europe 2007” – Sofia, Bulgaria, 2007

Energy Efficiency Project Development and Financing: Bulgarian Energy Efficiency Fund, 3<sup>rd</sup> Congress of EE and RE, Sofia, Bulgaria, 2007

Financing energy efficiency (in buildings) in Bulgaria, JRC Workshop on Scientific Technical Reference System on Renewable Energy & End-Use Efficiency: “Financing of energy efficiency in buildings in New Member States, Acceding and Candidate Countries” – Budapest, Hungary, 2006

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#### **AWARDS:**

2008: In his capacity as Executive Director of the Bulgarian Energy Efficiency Fund, rated for the second time by the World Bank as “highly satisfactory”

2007: In his capacity as Executive Director of the Bulgarian Energy Efficiency Fund, rated by the World Bank as “highly satisfactory (or best practice) operation, whose design and implementation should be disseminated internationally”

2006: In his capacity as Executive Director of the Bulgarian Energy Efficiency Fund, awarded by the Bulgarian Energy Efficiency Agency “Nr. 1 specialized financial institution for energy efficiency financing”