

Capability Statement

(May 2016)



Host and Affiliate of:



Recipient of:



Clean Energy Financing Award 2009

Hosted by:



Full Advantage Co., Ltd.

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Company Background

Full Advantage Co., Ltd. (FA) is a self-sustaining spin off of a donor-funded program, the EC-ASEAN Cogen Programme (<http://www.cogen3.net/>), which operated from end 1990 to 2005. The Cogen Programme was an economic cooperation platform between the member states of the European Union (EU) and the ten countries within the Association of Southeast Asian Nations (ASEAN). Based in Thailand and with Country Coordinators in Europe and in each ASEAN country, Cogen promoted the implementation of clean energy projects through partnerships, technical assistance, investment support and capacity building. It has facilitated the implementation of close to a total of 150 MW of operating clean energy projects in ASEAN and has leveraged funding of about EUR 200 million (~USD 225 million). The projects that Cogen supported ranged from 500 kW to 65 MW in capacities with investments of USD 0.5 to USD 80 million per project. At the end of the program in 2005, the projects that Cogen supported had an estimated annual GHG emission mitigation of 325,000 tCO₂eq.

One of the targets by the end of the program was to establish and institutionalize a platform that would operate in a sustainable way and would carry on the activities of the Programme. Thus, when Cogen Programme ended in 2005, the team that managed the Programme created an entity as a spin-off company with five Founding Members from Cogen. The entity, called Full Advantage, made use of the expanded network of the program and its pool of experts to provide the required services and support to stakeholders in the energy and environment sector in Southeast Asia, which later expanded to other parts of the world, including East Asia, South Asia and Africa.

Full Advantage is registered in Thailand as a private sector regional project development and advisory company in the field of Energy and Environment whose mission is to help our partners and clients harness untapped resources, creative processes and appropriate technological solutions in generating cleaner, more affordable energy, conserving it and contributing to a greener, more sustainable environment. Full Advantage has the following accreditations and awards:

- Accredited Consultant by the Royal Thai Government Ministry of Finance
- Host and Affiliate of the World Alliance for Decentralized Energy (WADE)
- Accredited and hosted by the Thailand Science Park
- Recipient of 2009 Clean Technology Initiative (CTI) Clean Energy Financing Award
- Member, Climate Technology Centre and Network (CTCN)
- Member, Association of Scientists, Developers and Faculties (ASDF)

Core Activities and Services

Full Advantage has three main business activities, namely:

- Advisory and Consulting
- Business/Project Development
- Climate Change Activities

These business activities have a particular focus on the following sub-sectors:

- Renewable energy and rural electrification
- Cogeneration and decentralized energy systems
- Waste-to-energy wastewater, landfill and MSW
- Energy efficiency
- Biofuels and energy plantation

- Climate Change, Greenhouse Gas (GHG) mitigation/adaptation, GHG Accounting
- Sustainable energy financing

With its team of multi-disciplinary and multi-national experts, the group provides a wide range of services in various aspects such as:

- Technical advisory and assistance
 - resource assessment and fuel availability studies
 - technology assessment
 - engineering and design
 - tendering and support in bidding negotiations
 - technical preparation/review of contractual arrangements
 - project management during construction
 - operation and maintenance
 - performance monitoring of projects
- Project development/co-development activities
 - project origination
 - conduct of conceptual studies and pre-/full-feasibility studies
 - due diligence activities
 - project and deal structuring
 - permitting and consents
 - equity and debt raising
 - public-private partnerships
- Commercial and financing aspects
 - investment appraisals and financial modeling
 - preparation of information memorandum
 - funds mobilization and financial packaging
 - investment facilitation and structuring
- Market entry and facilitation
 - identification of projects and business contacts
 - market entry studies and preparation of business plans
 - business facilitation
- Policy, advocacy and capacity building
 - policy, regulatory and sectoral studies
 - advocacy activities
 - capacity building and training
- Climate change activities & carbon financing
 - GHG mitigation project identification and assessments
 - methodological assessments and development
 - GHG accounting
 - monitoring and verification support
 - carbon asset management

Full Advantage has a wide client base which includes the following groups:

- Private sector consisting of project developers, financing institutions, international consultants and service providers, contractors and equipment suppliers
- Multilateral and bilateral funding agencies
- UN agencies
- Government and other donor agencies

Key Management Staff and Senior Experts

Full Advantage is incorporated as a private company in Bangkok, Thailand. The following are the Key Management Staff and Senior Experts of the company and the corresponding brief summary of their profiles:

Dr. Ludovic Lacrosse, Chairman

(Ph.D. in Agro-Chemical Eng.; Executive MBA)

- Former Member, UNFCCC CDM Methodology Panel; Former CTA, EEP Mekong; Former International Team Leader, Vietnam-Swedish Rural Electrification Project; Former Coordinator, EC-ASEAN COGEN Programme
- In his 30 years of professional experience in the Energy and Environment sector, Ludovic has spent more than 20 years developing, implementing and managing institutional projects and programs within the Asian Region. He has acted as policy and institutional advisor to policy makers, conducted capacity building activities and facilitated investments in the clean energy space. He has in-depth knowledge and understanding of the RE and EE policy, institutional and project development landscape of the South-East Asian region. His areas of expertise cover renewable energy technologies, rural electrification, cogeneration and decentralized energy systems, climate change and Clean Development Mechanism, institutional development, capacity building and public-private partnerships.

Alan Dale Gonzales, Executive Director

(Civil Engineer; M.Eng.-Structural; MBA; Ph.D. candidate)

- Former Chief Business Adviser, EC-ASEAN COGEN Programme
- Chairman, World Alliance for Thai Decentralized Energy (WADE Thai)
- With over 20 years of experience in project development, financial packaging, and funds mobilization in the energy and the environment space, Alan Dale has demonstrated extensive successes in providing direct advisory functions to government agencies, multilateral/international institutions, and private enterprises in matters related to financial analysis and modeling; carbon financing; project origination and creating deal flows; business development and investment structuring; capacity building and training; public-private partnerships; feasibility studies and due diligence activities covering areas related to renewable energy (RE) and energy efficiency (EE); rural electrification; cogeneration and decentralized energy systems; Clean Development Mechanism (CDM); and biofuels. He has worked as a consultant/adviser to the World Bank, IFC, Asian Development Bank, the European Commission, UN agencies and private enterprises.

Vazzan Tirangkura, Director & COO

(Mechanical Engineer; MBA)

- Former Technical Adviser, EC-ASEAN COGEN Programme
- Vazzan has 15 years working experience in the development, engineering, implementation, operation and maintenance of power generation and renewable energy projects. He has worked as Division Manager in-charge of power plant operation, maintenance and engineering for a Thai company that has a portfolio of more than 450 MWe of biomass/coal power generation plants. He has also provided technical expertise in arbitration cases involving contractual issues of biomass projects.

Dr. Tran Quang Cu, Director & CTO

(Ph.D. in Energy and Environment)

- Former Technical Adviser, EC-ASEAN COGEN Programme
- Cu has 20 years of experience in the fields of energy efficiency and environmental projects, renewable energy, rational use of energy, energy planning and power plant engineering. He has led and conducted numerous projects involving activities such as

conduct of feasibility studies; assessment and selection of technologies; power/cogeneration project engineering; development, engineering, design and management; and climate change/CDM activities.

Supasit Amaralikit, General Manager

(Electrical Engineer; MBA)

- Former Project Development Engineer in the biggest kraft paper factory in Thailand
- Supasit has more than 10 years experience in engineering & design; procurement, installation, commissioning, performance test and operation of biomass/coal boilers and power plants; waste heat recovery; instrumentation and control systems; electrical substations and other peripheral equipment; regulatory and permitting issues; grid interconnection and protection aspects. He is a well-experienced Project Manager, having managed the construction of energy equipment, including the construction of a 9.9 MW Rice Husk Power Plant Project located in Thailand, designed to sell electricity to the Provincial Electricity Authority (PEA) grid under the Very Small Power Producer (VSPP) scheme.

Bien Anatan, Sr. Project Manager

(Electrical Engineer)

- Former Head of Engineering and Operations Division, Panay Electric Company, Inc. (PECO)
- Bien has extensive knowledge and experience on energy regulatory compliances, grid operations, power plant operations, transmission and distribution utility engineering & operations management, capacity building, customer service welfare and project management. He is an expert in power sector policies, reforms and strategies, and has been the Regulatory Compliance Officer and company's representative. He has worked as a private technical consultant for entities like the ADB, NGOs, local governments and private sector stakeholders advocating poverty alleviation through available, reliable, sustainable and affordable energy supply. He has worked on areas involving power purchase agreements, costing of electricity, application for power rate adjustments and other power sector concerns. As part of his advocacy, he avails himself as expert witness and resource person and regularly speaks on Power Consumer Welfare Education on local cable TV, radio programs and public forums.

PHILIPPINE OFFICE**Dr. Bernardo D. Tadeo, President & CEO, Full Advantage (Phils) International, Inc.**

(BSAE, M. Eng.-Power & Machinery, Ph.D. in Environment & Conservation)

- Former Head of Biomass Group, Philippine Rice Research Institute (PhilRice); Past President, Philippine Society of Agricultural Engineers (PSAE)
- Executive Director, PSAE
- Bernardo heads the operations of Full Advantage in the Philippines. He has over 20 years of professional experience in various projects in the Philippines and abroad in renewable energy and sustainable development, including but not limited to: biomass energy; waste-to-energy; biofuels; environmental performance accounting, sustainability and management systems; sustainable agriculture and engineering.

Competence and Track Record

Full Advantage as a company is rarely matched in the region in terms of experience in advising, developing and implementing projects and enterprises in the energy and environment sectors. Being a business and project developer ourselves with years of experience in conceptualizing, designing, and developing numerous projects in the

region, the team at FA possesses the practical knowledge and skills in establishing projects from conceptual stage to operation. Thus, we are able to use the lessons from these experiences from different countries, to avoid the pitfalls and assess parameters that have most likelihood for success.

The Team of FA (corporate and individual) has been involved in the different stages of **more than 100 renewable energy and energy efficiency projects** in the different countries of Asia and beyond. Many of these projects have reached operation stage amounting to a combined **operating capacity of more than 300 MWe**. Hence, we bring in not only the success factors of these projects, but also the experiences on a regional level and the challenges faced by these projects.

Our experience in the three business units of FA are described below.

Advisory and Consulting

Full Advantage provides advisory and consulting services to both institutional and private sector clients. The combined experiences of the Directors of Full Advantage are extensive and the spectrum of their project involvement spans far and wide in the energy and environment field. Our track record encompasses the following:

- Worked with major institutional clients such as the Asian Development Bank, the European Commission, GIZ, IFC, UN agencies, USAID, the World Bank and other public sector and government agencies.
- Experience and network covers many countries in Asia and beyond.
- Possesses a pool of experts and specialists allowing the company to provide a comprehensive package and complete solution to a wide range of energy and environment projects and activities.

Annex A shows the current projects of Full Advantage as well as the involvement of its Directors in selected energy and environment projects.

Business/Project Development

With years of experience in the development and implementation of numerous projects in the region, the team at Full Advantage possesses the practical knowledge and skills in developing energy and environment projects from conceptual stage to operation. Our achievements in this business activity include the following:

- Track record in development/co-development of several renewable energy, biogas, MSW and biofuel projects.
- Involvement in the development, financing and implementation of clean energy projects with an aggregate portfolio of around 300 MWe of operating projects.
- Competence in varied types of technologies and capacities ranging from 10 kW to 100 MWe.
- SPRING-1, a project developed by Full Advantage has won the Business Plan Competition held in Singapore in March 2009 and *“was deemed to be one of the most promising clean energy investment opportunities in the ASEAN region.”*

Annex B provides some details of the combined involvement of the Directors of Full Advantage in the development, financing and implementation of cogeneration and renewable energy projects.

Climate Change Activities

FA is at the forefront of the Climate Change activities and carbon financing market in the region, having been involved in the different aspects of more than 30 Clean Development Mechanism (CDM) projects. Moreover, because we have a strong technical expertise in the energy and environment sector, we are able to provide advice and service that is most appropriate and effective for the Climate Change projects we are engaged in.

The competence of Full Advantage has been recognized by international institutions and reputable private sector companies, through the Climate Change activities that Full Advantage has conducted for these institutions and companies.

Some highlights of our competence and expertise in this field are:

- Active participation in the CDM decision making at the global level through our *experts who provide advice to the Registration and Issuance Team (RIT)* of the Executive Board of the UNFCCC. The RIT provides inputs and expertise to the Executive Board on CDM projects that request for registration and issuance of CERs.
- *One of the Directors of Full Advantage was, until recently, a member of the UNFCCC Methodology Panel*, which was established to develop recommendations to the Executive Board on guidelines for methodologies for baselines and monitoring plans.
- Full Advantage currently offers post-registration monitoring package to assist projects during monitoring and evaluation stage, GHG accounting services and project development leading to the creation of Nationally Appropriate Mitigation Actions (NAMAs).

The collective and individual selected experiences of the FA Team in the conduct of Climate Change and CDM activities are listed in **Annex C**.

Our Value Proposition

As a regional company to be reckoned with, the expertise and experience of Full Advantage encompass the technical, business and financial areas of energy and environment projects, giving the client the whole and integrated package of project development and implementation services. The following features distinguish the team and offer great value to the client:

- ✦ *Global/regional experience, coverage and network*
- ✦ *Highly professional, responsive and flexible team*
- ✦ *Proven track record and successful references*
- ✦ *Comprehensive and integrated package*
- ✦ *Capability to mobilize multiple sources/types of funding*
- ✦ *World-class service, regional knowledge, local price*

Annex A

Involvement of Full Advantage and its Directors in Selected Institutional Energy and Environment Projects

Client: Project: Location: Date: Brief Description:	Asian Development Bank (ADB) SC 105736 REG: Establishing a Pilot Center to Facilitate Climate Technology Investments in Asia and the Pacific ADB Developing Member Countries October 2015 – March 2016 As part of the monitoring and evaluation requirements under the GEF, the assignment consists of a mid-term review undertaken for the project components of ADB's Climate Technology Finance Center (CTFC).
Client: Project: Location: Date: Brief Description:	The World Bank (via 3E NV) Botswana Renewable Energy Strategy Botswana October 2015 – October 2016 Preparation of biomass and biofuel resource potential, which is part of the energy strategy being conducted by the Consortium of which FA is a member.
Client: Project: Location: Date: Brief Description:	Renewable Energy Support Programme for ASEAN (ASEAN-RESP), ASEAN Center for Energy (ACE) Renewable Energy Policy in ASEAN 10 ASEAN Member States November 2015 – March 2016 The project has the following activities: <ul style="list-style-type: none"> • Review and updating of the renewable energy policies in 10 ASEAN Member States (AMS); • Analysis of the impact of renewable energy policies to renewable energy development in 10 AMS; • Provision of conclusion and recommendation on the RE Policy; • Sharing of information among ASEAN Member States (AMS) on RE policy and enhancing awareness on the RE Policy enforcement for boosting RE implementation.
Client: Project: Location: Date: Brief Description:	The World Bank Renewable Energy Resource Mapping: Biomass – Vietnam (Phases 1-3) Vietnam May 2015 - March 2017 The project is to support the country to improve RE resource awareness, place appropriate policy for RE growth and provide 'open access' to resource and geospatial mapping data. The activities are scoping of data sources and availability, preliminary mapping and stakeholder identification, data collection and analysis and production of high quality Biomass Atlas. The specific activities are: Phase 1 – Project inception, team building, data source identification and implementation planning Phase 2 – Ground-based data collection and analysis; creation of draft biomass resource maps Phase 3 – Production of validated biomass resource atlas
Client: Project: Location: Date: Brief Description:	Energy Policy and Planning Office Preparation of Smart Grid Advocacy Plan Thailand April 2015 - April 2016 The activities include: <ol style="list-style-type: none"> 1) Review of Smart Grid Technology/Activities in Abroad Countries 2) Review of Smart Grid Activities in Thailand 3) Creation of Smart Grid Task Force to focus on 5 selected Smart Grid technology 4) Preparation of Smart Grid Advocacy Plan 5) Meetings/Seminar to present the project result 6) Smart Grid Website/Software Development and Manual Preparation 7) Preparation of Smart Grid Activities in Thailand Progress Report
Client:	Private Financing Advisory Network in Asia (PFAN-Asia)

Project: Location: Date: Brief Description:	PFAN-Asia Operator Asia-Pacific March 2015 – present Full Advantage Consortium has been selected by the USAID and Deloitte Consulting (the current program manager of PFAN-Asia) to be the PFAN-Asia Operator who will manage a sustainable platform covering 12 countries of Asia-Pacific region. The PFAN-Asia program supports RE & EE projects by bridging the gap between good projects and willing investors.
Client: Project: Location: Date: Brief Description:	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH Support to project evaluation and planning of ASEAN Renewable Energy Support Programme (ASEAN-RESP) Thailand, Malaysia, Cambodia, Laos and Myanmar February 2015 – May 2015 The objectives of the assignment are: <ul style="list-style-type: none"> • To support ASEAN-RESP in summarizing the policies, priorities, and interests on EE&C and RE in the ASEAN member states (AMS) with focus on EE&C; • To identify relevant stakeholders from the public and private sector, academia and civil society for interviews in selected AMS (Cambodia, Laos, Myanmar and Thailand); • To undertake interviews with chosen stakeholders in order to verify priorities and interests of AMS regarding EE&C and RE (field trip to Cambodia, Laos, Myanmar and Thailand) • To identify the implementation gap on EE&C as well as RE with regards to national and regional strategies; • To identify potential fields of activity for ACE-GIZ cooperation 2016-2020 considering activities/programmes of other international partners in the region/AMS; • To support a stakeholder planning workshop with EE&C Sub-Sector Network (EE&C-SSN) Focal Points, RE Sub-Sector Network (RE-SSN) Focal Points, ACE and GIZ
Client: Project: Location: Date: Brief Description:	Global Green Growth Institute (GGGI) – Consortium partner to Ecofys Industry GHG Reduction to Support the Implementation of Thailand's Climate Change Master Plan for GGGI Thailand January 2015 – October 2015 The project aims to assist the implementation of the Climate Change Master Plan by developing a clear roadmap for GHG reduction, in selected three industrial sub-sectors of the Thai economy. The major activities of the project consist of the following: <ul style="list-style-type: none"> • Emissions projections for the selected sub-sectors • Identify industry emissions reductions measures and costs (Technical and economic analysis) • Develop GHG Reduction Roadmap
Client: Project: Location: Date: Brief Description:	Asian Development Bank (ADB) – Consortium partner to Nexant TA 8657-MYA Off-Grid Renewable Energy Demonstration Project Myanmar January 2015 – June 2017 The project aims to accomplish the following: <ul style="list-style-type: none"> • Design and installation of renewable energy systems in 25 villages to power community infrastructure and households. • Development of geospatial least-cost energy access, investment plans, and off-grid electrification policy/regulation for select regions and states of the country. • Strengthen the skills and abilities of staff in government entities and the private sector.
Client: Project: Location: Date: Brief Description:	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH Pre-feasibility Study on Combined Heat and Power (CHP) in a Selected Industry in Vietnam South of Vietnam December 2014 – June 2015 The study aims to enhance increased application of high efficient biomass energy generation systems applying Combined Heat and Power (CHP) technology to be promoted under the newly introduced national support mechanism for solid biomass power generation.
Client:	The World Bank

Project: Location: Date: Brief Description:	Renewable Energy Resource Mapping: Biomass – Pakistan (Phases 1-3) Pakistan November 2014 – November 2015 The project is an initiative by ESMAP/WB to support country-driven efforts to improve RE resource awareness, put in place appropriate policy frameworks for RE development, and provide 'open access' to resource and geospatial mapping data. The specific activities are: <ul style="list-style-type: none"> Detailed scoping of data sources and availability, preliminary mapping and stakeholder identification Data collection and analysis Production of high quality biomass atlas
Client: Project: Location: Date: Brief Description:	United States Agency for International Development (USAID) – Consortium partner to IRG Building Low Emission Alternatives to Develop Economic Resilience and Sustainability (B-LEADERS) Philippines October 2014 – present (4 years) The B-LEADERS serves as the anchor program that promotes the US government's Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) in the Philippines. The ultimate goal of the project is to strengthen the capacity of the Philippine government and its key partners to plan, design and implement Low Emission Development Strategies (LEDS) contributing to the formulation of Nationally Appropriate Mitigation Actions (NAMAs) in the energy and transport sectors and to a certain extent, the forestry/land-use sectors. FA takes the lead in the implementation of Task II that covers the following objectives: <ol style="list-style-type: none"> Promote investments into clean energy projects Strengthen clean energy investment partnerships and networks. FA carries out activities designed to achieve the following outcomes: <ul style="list-style-type: none"> Implementation of selected clean/renewable energy projects; Enhanced capability of banking/financing institutions to appreciate and understand the nuances and risks related to clean energy investments; Financial closure of selected clean energy projects; Investors' forum held/conducted leading to firm investments on clean energy.
Client: Project: Location: Date: Brief Description:	United Nations Development Programme (UNDP) Promotion of Low Carbon Urban Transport Systems in the Philippines Philippines September 2014 – Present The work is done during the Project Preparation Grant (PPG) stage with the purpose of the formulation of the project for GEF funding. The main activities include: <ul style="list-style-type: none"> Leading, guiding and coordinating inputs from national consultants Designing and preparing the Logical Framework of the project Drafting and designing the ProDoc, GEF CEO Endorsement Request
Client: Project: Location: Date: Brief Description:	United Nations Environment Programme (UNEP) Phasing out Incandescent Lamps through Lighting Market Transformation in Vietnam Vietnam June 2014 – October 2014 The assignment is to conduct the Mid-term Evaluation (MTE) of the project, which is funded by the Global Environment Facility and implemented by UNEP and a GoV agency.
Client: Project: Location: Date: Brief Description:	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH Development of Improved Biomass Applications in Industrial Power Generation Pakistan May 2014 – September 2014 The objective of this assignment is to support the All Pakistan Textile Mills Association (APTMA) in the development of framework for sustainable biomass applications for power generation in the textile industry. This assignment will provide support for this potential of biomass energy to be realized in three selected mills and pave a way for its wider application. The services of Full Advantage consist of the following: <ul style="list-style-type: none"> Biomass supply chain assessment and recommendations for 3 selected APTMA member mills representative of the textile sector Biomass power generation technology assessment and recommendations Conduct workshop for APTMA's management and member mills

Client: Project: Location: Date: Brief Description	French Agency for Development (AFD) – Consortium partner to Artelia and CEERD Promotion of Investments in the Sectors of Renewable Energies and Energy Efficiency in Indonesia Indonesia March 2014 – August 2015 The overall objective of this project is to assist stakeholders to unlock barriers in investment in RE/EE projects. This done through identification, screening and selection of projects and support the project promoters at development stage to further their advance the development and financing of their projects.
Client: Project: Location: Date: Brief Description:	Agriculture Department, Government of Punjab, Pakistan Feasibility Studies of Biomass Power Generation in the Punjab Province Pakistan March 2014 – present The objective of this assignment is to develop the techno-economic feasibility study for low cost power generation for five (5) sites from crop biomass, keeping in view the availability of biomass, biomass supply chain mechanism, zoning, possible generation, cutting edge technology, option to invite private sector, use of electricity, risks and sensitivity analysis, regulatory issues and way forward. The components include: <ul style="list-style-type: none"> • Biomass resource potential • Biomass preparation • Supply chain mechanism • Biomass feedstock handling and storage • Technological options and business model • Legal aspects • Risk analysis
Client: Project: Location: Date: Brief Description:	Energy Policy and Planning Office Preparation of Demand Response Policy Suggestion in Thailand Thailand March 2014 – March 2015 Key topics covered are: <ul style="list-style-type: none"> • Review of Demand Response, Smart Grid for Demand Response, Demand Reduction • Applicable/Suitable Demand Response activities for Thailand • Smart Grid/Demand Response Feasibility Study for selected Industrial Estate(s) • Smart Grid/Demand Response Replication Plan • Demand Response Policy Suggestion
Client: Project: Location: Date: Brief Description:	Frankfurt School of Finance & Management gGmbH (UNEP Collaborating Center) Hybridization of existing diesel-powered regional grids – technical requirements and economic viability assessment Indonesia and the Philippines October 2013 – December 2014 The assignment is to support Frankfurt School to develop: <ul style="list-style-type: none"> • Technical design/layout of the hybrid plant; • Economic and financial analysis for the hybridization of diesel grid; • Proposed financing structure and (if required) financial support mechanism; • Operations/business model for hybridization of diesel grid.
Client: Project: Location: Date: Brief Description:	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH Development of Biomass/Bagasse Upfront Feed-in Tariff in Pakistan Pakistan June 2013 – October 2013 The scope of work of this assignment is to develop and propose the upfront feed-in tariff model for utility-scale grid-connected bagasse-based power/cogeneration projects. The model has been developed through three major stages: <ul style="list-style-type: none"> • Technical analysis of bagasse-based power generation/cogeneration projects; • Financial modeling and analysis of bagasse-based power generation/cogeneration projects; • Feed-in tariff modeling and analysis and elaboration of fuel pricing mechanisms for bagasse-based power generation/cogeneration projects.
Client: Project:	Philippine Forest Corporation/UNEP Technology Transfer and Promotion of Investments for PV-Biomass Hybrid Systems Utilizing Local Agro-forestry Species towards a Low-Carbon Energy Path

Location: Date: Brief Description:	Busuanga Island, Philippines March 2013 – present This project focuses on the promotion and use of biomass energy resources hybrid with PV systems for the provision of energy services in island and rural communities. The major components include: <ul style="list-style-type: none"> • Market assessment for stand-alone and hybrid RE systems as a strategy for de-carbonizing fossil fuel-based island/decentralized energy plants. • Technology transfer and deployment of hybrid bioenergy and PV systems for off-grid/mini-grid operations. • Integration of energy conservation and efficiency strategies. • Promotion and scaling-up of hybrid biomass energy systems applications for decentralized and islands grids.
Client: Project: Location: Date: Brief Description:	Energy Policy and Planning Office Demand Response Pilot Demonstration in Industrial Area Thailand March 2013 – January 2015 Key topics covered are: <ul style="list-style-type: none"> • Selection of Two Pilot Projects • Selection of Appropriate DR Technologies • Installation, Commissioning and Performance/Acceptance Test of the Pilot DR Systems • Operating Data Collection, Monitoring and Analysis of the Pilot DR System • Dissemination of Outcomes of the Programme to Stakeholders
Client: Project: Location: Date: Brief Description:	International Energy Agency (IEA) / World Alliance for Decentralized Energy (WADE) India Combined Heat and Power (CHP) Scorecard India March 2013 – April 2014 The Project consists of the preparation and delivery of a fully updated IEA CHP/DHC Country Profile for India.
Client: Project: Location: Date: Brief Description:	International Finance Corporation (IFC) Environmental Risk Management (ERM) in the Bangladesh Financial Sector: Post ERM Guideline Market Support Bangladesh January 2013 – August 2013 The project consists of a review of the current environmental and social (E&S) risk management practices and capacities in the Bangladesh financial sector specifically among (i) commercial banks; (ii) supporting institutions such as training institutions; and (iii) Bangladesh Bank. A survey of these institutions will be conducted first, to determine existing practices and benchmark E&S risk management capacity at the regulator, within supporting institutions and with banks in order to identify market support needs and frame project development; second, to establish a baseline from which to measure project performance; and third, to offer concrete recommendations on priority areas requiring further intervention, based on the survey findings.
Client: Project: Location: Date: Brief Description:	Energy and Environment Partnership - Indonesia Developing and Piloting a Platform and Database for the Biomass and Bioenergy Resource Assessment Kalimantan, Indonesia January 2013 – September 2014 The project's overall objectives are to catalyze the use of biomass residues, create a platform for biomass resource mapping for roll out in Indonesia, and develop a transparent common database for biomass sellers, buyers, universities and local administration.
Client: Project: Location: Date: Brief Description:	Energy Policy and Planning Office (EPPO) (through Ensol) Development of Projects to Increase the Efficiency of the Use of Electricity and Heat in the Sugar Industry in Thailand Thailand January 2013 – July 2014 A program of the Energy Policy and Planning office (EPPO) of Thailand to optimize the use of bagasse produced in the sugar mills in Thailand to generate more power from renewable sources to contribute to the country's grid, the project involves the following: <ul style="list-style-type: none"> • Conduct of pre-feasibility studies in all (52) sugar mills • Conduct of feasibility studies in six selected sugar mills in Thailand

	<ul style="list-style-type: none"> Project development support, funds mobilization and financial packaging of cogeneration projects in selected sugar mills in Thailand
Client: Project: Location: Date: Brief Description:	Energy Policy and Planning Office (through Consultants of Technology) Preparation of Distributed Generation Policy Roadmap in Thailand Thailand January 2013 – May 2014 The project involves the following: <ul style="list-style-type: none"> Review of policies related to Distributed Generation (DG) Conduct of planning simulation model to assess the impacts of DG in the energy sector of Thailand Preparation of DG policy roadmap and recommendations
Client: Project: Location: Date: Brief Description:	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH Techno-Economic Feasibility Study for Biogas System Application using Cattle Farm Waste Punjab Province – Pakistan November 2012 – February 2013 The objective of the project is to conduct a techno-economic feasibility study for the application of biogas system combined with the electricity generation for cattle farm for own consumption as well as selling of excess electricity to the grid. The scope of work has four major tasks that includes preliminary assessment, feasibility study, compilation and presentation of the feasibility study, and project coordination and reporting.
Client: Project: Location: Date: Brief Description:	International Center for Environmental Technology Transfer (Japan) Transfer of Japan's environmentally sound technology/facility to Thailand Thailand September 2012 – February 2013 The project consists of: <ul style="list-style-type: none"> Selection of a local partner enterprise Field survey Coordination for project formation Development of project proposal/business plan
Client: Project: Location: Date: Brief Description:	ASEAN Centre for Energy (ACE) / GIZ Development of an ASEAN Best Practice Guideline on Innovative Off-Grid Rural Electrification Approaches ASEAN September 2012 – December 2012 The project is to develop an ASEAN Best Practice Guideline which provides clear and demonstrative recommendations for decision makers in the ASEAN region, including "Do's and Don'ts" for chosen scenarios of off-grid rural electrification with RE technologies.
Client: Project: Location: Date: Brief Description:	United Nations Environment Programme (UNEP) Technical Assistance and Training on Sustainable Energy Strategies Asia-Pacific and Africa July 2012 – May 2013 The assignment involves the following services: <ul style="list-style-type: none"> Development of a "technical guide" for preparing project proposals for capacity building in sustainable energy strategies. Development of presentation materials for a training workshop. Provision of guidance and technical assistance to countries in identifying project concepts that will be developed into proposal for the Global Environment Facility.
Client: Project: Location: Date: Brief Description:	Asian Development Bank Empowering the Poor through Increasing Access to Energy (Improving the Productivity of Swine Farms through Environmentally Acceptable Operation) Philippines July 2012 – May 2014 This scoping study includes developing appropriate business models for improving the financial and economic viability of biogas generation wastewater treatment facilities both for commercial and small backyard farms (>6 heads per household). This will involve examining opportunities and developing strategies to increase the net benefit for farmers to invest in environmentally compliant waste treatment facilities. Detailed tasks include:

	<ul style="list-style-type: none"> • Identification of Current Status of Compliance of Two Backyard Hog Farmers with Government effluent and water quality standards • Identification of Key Issues / Opportunities Amongst Key Stakeholders for Adopting Appropriate Biogas Generation Swine Wastewater Treatment Facilities • Development of an Appropriate Business Model and Technical, Financial, Economic, Environmental and Social Pre-Feasibility Study of Biogas Generation Wastewater Treatment Facilities for Two Piggery Farms
Client: Project: Location: Date: Brief Description:	United Nations Development Programme (UNDP) Feasibility Study and Design of Small Hydropower Plant in Mopung cooperative farm of DPRK DPR Korea July 2012 – December 2012 The assigned tasks for this project consists of: <ul style="list-style-type: none"> • Conduct of feasibility study of a small hydropower project in a cooperative farm; • Conduct of basic and detailed (civil) engineering designs; • Preparation of bidding documents for equipment purchase and plant construction and installation
Client: Project: Location: Date: Brief Description:	Agro Indomas Group/ Natural Power (NP) Preliminary Site Assessment and Feasibility Study of Biogas Systems at 2 Palm Oil Mills of Agro-Indomas Palm Oil Group in Kalimantan Kalimantan, Indonesia May 2012 – October 2012 Working in cooperation with Natural Power, FA conducts a pre-feasibility study for the implementation of biogas power generation systems in palm oil mills of Agro-Indomas Palm Oil Group in Kalimantan. Specifically the tasks involve: <ul style="list-style-type: none"> • Developing a business model for the implementation of the project; • Developing and running a Financial Analysis model to assess the economic and financial performance of the project; • Preparing the complete Pre-Feasibility Study Report.
Client: Project: Location: Date: Brief Description:	ASEAN Centre for Energy (ACE) GIZ Study on Innovative Rural Electrification Approaches Cambodia, Indonesia, Laos and Myanmar March 2012 – May 2012 The purpose of the assignment is a study on rural electrification through RE in selected member states of the ASEAN. The aim of the work is to identify successful projects and/or approaches and to work out their success factors. A specific focus is on the sustainability and long-term feasibility that includes the assessment of potential business models that are integrated in the rural electrification efforts. The findings will help to replicate successful practices in the future in other countries of the ASEAN region (and beyond) and therefore to support the enhanced use of RE technologies for rural electrification purposes. Moreover, the outcome of the study will lay the basis for an “ASEAN Best Practice Policy Guideline” on rural electrification with RE technologies.
Client: Project: Location: Date: Brief Description:	International Finance Corporation (IFC) Portfolio Development of FIs for Sustainable Energy Financing Bangladesh and Nepal May 2011 – June 2014 The objectives of this assignment include: <ul style="list-style-type: none"> • Supporting the Portfolio Development in Sustainable Energy Finance (SEF) for FIs in Nepal and Bangladesh; • Providing technical assistance to Financial Institutions(FI) to develop the capacity to grow a portfolio of EE/RE projects among their existing client base and also develop new business; • Supporting the FI in all of the following activities: capacity building, pipeline development, product development and marketing/advertising in the field of SEF; • Conducting investment-grade energy audits, pipeline development and deal flow generation and structuring; • Greenhouse Gas accounting of a portfolio of facilities that have received financing from FIs.
Client: Project:	United Nations Development Programme (UNDP) Feasibility Studies, Engineering and Design of Demonstration Projects Under

Location: Date: Brief Description:	Sustainable Rural Energy Development Programme DPR Korea March 2011 – February 2012 The work is to conduct feasibility studies in order to assess the technical feasibility and financial viability of the proposed renewable technology application demonstration projects, and prepare the basic and detailed engineering design (process, piping, piping and instrumentation, mechanical, electrical, and civil) for each RET application demonstration project consisting of the following technologies: <ul style="list-style-type: none"> • Small hydropower plants • Biomass gasifier systems • Solar thermal systems • Solar PV systems • Biogas systems • Biomass direct combustion/ High-efficient coal combustion systems
Client: Project: Location: Date: Brief Description:	The European Commission Smart/Intelligent Grid Development and Deployment in Thailand (Smart Thai) Thailand January 2011 – July 2013 The overall objective of this project is to improve the sustainable economic and social development of Thailand through the efficient delivery of sustainable, economic and secure electricity using Smart/Intelligent Grid systems based on EU models and technologies. The specific objective is to transform the generation, transmission and distribution network of Thailand through the enhancement of the capacity of Thai private and public sector organisations in introducing and promoting Smart/Intelligent Grid systems thereby contributing to the national development goals of Thailand in the area of environment, climate change and energy security.
Client: Project: Location: Date: Brief Description:	Clean Technology Initiative – Private Financing Advisory Network (CTI-PFAN) Mentoring of projects to secure investments Asia 2010 – present <ul style="list-style-type: none"> • Provide developers with one-on-one coaching to produce: <ul style="list-style-type: none"> - Business Plan - Elevator pitch to investors - Presentation during the AFCEF Business Plan Competition and Investment Forum • Identify and introduce to the assigned project developers potential investors and lenders • Assist project developers in structuring deals and negotiating with funders
Client: Project: Location: Date: Brief Description:	United Nations Development Programme (UNDP) Sustainable Rural Biomass Energy Bhutan May 2010 – December 2011 Full Advantage provided the International Technical Consultant, and technical support, to lead a team in the preparation of the full-size project document for GEF funding.
Client: Project: Location: Date: Brief Description:	Japanese Utility Survey on CDM Projects Thailand, Philippines and Lao PDR April 2010 – February 2011 Full Advantage was mandated by the client to conduct a survey of the potential of the CDM market in Thailand, the Philippines and Lao PDR, identify investment opportunities and facilitate negotiations with local project owners/developers.
Client: Project: Location: Date: Brief Description:	United Nations Environment Programme (UNEP) Assessing the business case for the National Housing Authority (NHA) to incorporate green solutions in its social housing projects Thailand March 2010 – August 2011 The objectives of this technical support is to: assess the business case for the National Housing Authority to provide green solutions in social housing projects in Thailand; to act as the policy expert for relevant consultation under the project.
Client:	United Nations Development Programme (UNDP)

Project: Location: Date: Brief Description:	1) Sustainable Rural Energy Development (SRED) Programme 2) Small Wind Energy Development and Promotion in Rural Areas (SWEDPRA) DPR Korea March 2010 – August 2010 The assignment is to assess and evaluate the two projects and reformulate the projects according to the new engagement rules of UNDP with DPRK.
Client: Project: Location: Date: Brief Description:	Association Technique Internationale des Bios Tropicaux (ATIBT) with funds from Fonds Français pour l'Environnement Mondial (FFEM) Cogen Central Africa Cameroon, DR Congo, Gabon February 2010 – May 2014 The main objective of the project is to provide technical assistance to some members of the ATIBT for the development, financing and implementation of cogeneration units in 6-7 wood industries of Central Africa. Full Advantage (and its subsidiary ACE Green for Phase 2) is a consortium partner of CRAW in performing the services in this project.
Client: Project: Location: Date: Brief Description:	Ministry of Foreign Affairs (MFA), Finland Energy and Environment Partnership – Mekong Cambodia, Lao PDR, Thailand, Vietnam January 2010 – December 2012 FA is the consortium partner of NIRAS A/S in implementing this 3-year, 7-million Euro programme. The Programme aims to improve access and promote more efficient use of renewable energy and energy efficiency in the Mekong region, and contribute to abatement of greenhouse gases.
Client: Project: Location: Date: Brief Description:	International Finance Corporation (IFC) Energy Efficiency and Power/Cogeneration in the Philippine Agro-Industries Philippines October 2009 – May 2010 This project aims to identify sustainable energy opportunities in the sugar, rice, wood, coconut and other similar industries, and to design a sustainable energy financing project that promotes a collaborative effort between the commercial banks, industry players, energy management companies, and IFC.
Client: Project: Location: Date: Brief Description:	Asian Development Bank (ADB) Scoping Study on the Potential for Medium-to-Large Scale Biogas Operations in Lao PDR for Energy for All Initiative Lao PDR May 2009 – March 2010 The project aims to develop new approaches and methodologies for promoting access by the poor to reliable and affordable modern energy services, and to scale up to levels that can be supported by ADB's operations departments.
Client: Project: Location: Date: Brief Description:	International Finance Corporation (IFC) CDM Project Development and Implementation in the Philippines Philippines March 2009 – September 2009 The project consists of an assessment of the CDM market in the Philippines, identify various innovative financing mechanisms and develop a market framework that will cater to small-scale CDM projects. The study looked into the likely roles of local financial institutions in bundling or aggregating smaller projects, build a pipeline of potential CDM financing opportunities and develop a short-list of FIs that are interested in making investments in projects.
Client: Project: Location: Date: Brief Description:	The European Commission Enhancing institutional Capacities for the Market Development of Decentralised Energy Systems in Thailand Thailand January 2009 – June 2010 The objectives of the project are two-fold, namely: <ul style="list-style-type: none"> • To help facilitate trade and investment flows between EU and Thailand in the field of energy and environment through cooperation among trade associations; and • To enhance capacities among key target groups within the government agencies and authorities in order for them to formulate and implement policies and regulations that will encourage investments in decentralised energy systems.

Client: Project: Location: Date: Brief Description:	The World Bank Climate Change Mitigation Program Development Vietnam March 2008 – June 2009 The components of the project are: <ul style="list-style-type: none"> • Scoping study • Identification of project and programme activities • Preparation of project ideas
Client: Project: Location: Date: Brief Description:	Asian Development Bank Preparing the Support for the Public-Private Development of the O Mon Gas Pipeline Project Vietnam May 2007 – August 2008 The project was to investigate the CDM potential for fuel switching of Natural Gas Projects in the South of Vietnam.
Client: Project: Location: Date: Brief Description:	The World Bank Capacity-Building for CDM Project Development Activities Philippines February 2007 – February 2008 The overall goal of the project is to identify opportunities and reduce barriers to CDM compliance in key sectors and for small scale projects through sector approaches, intermediaries and the identification of approximately 8 projects for development as CDM projects.
Client: Project: Location: Date: Brief Description:	UN Economic and Social Commission for Asia and the Pacific (UN-ESCAP) Overall Stocktaking of Biofuel Development in Asia and the Pacific Asia-Pacific June 2008 – October 2008 The objectives of the work were: <ul style="list-style-type: none"> • To provide guidance in the development of the programme on biofuels; • To prepare a brief background document on the issues concerning biofuels development in Asia and the Pacific; • To present the findings of the background document and facilitate discussions at the workshop; • To facilitate the discussions to ensure all the necessary issues have been covered.
Client: Project: Location: Date: Brief Description:	UN Asian and Pacific Centre for Agricultural Engineering and Machinery (UN-APCAEM) Background Study on Biogas and Biomass in Asia and the Pacific Asia-Pacific December 2007 – April 2008 The study investigated and analyzed the current situation of biogas and biomass and their market potential in major countries of Asia and the Pacific; the next generation biogas and biomass technologies; biomass resources, utilization and trade; and the cross-cutting issues on national policy frameworks, challenges and policy options for fostering bioenergy sector development.
Client: Project: Location: Date: Brief Description:	UN Economic and Social Commission for Asia and the Pacific (UN-ESCAP) Situation analysis on biomass utilization and trade in Asia and the Pacific with particular focus on Indonesia and Thailand Thailand, Indonesia November 2006 – June 2007 The situation analysis was aimed to clarify options for biomass/trade related activities in Asia-Pacific, using Thailand and Indonesia as sample study countries. Activities performed were: <ul style="list-style-type: none"> • Investigation of biomass trade and related activities; • Evaluation of barriers; • Cost-benefit analysis; • Biomass market analysis; • Assessment of socio-economic impact.
Client: Project:	House of Representatives/EC-ASEAN Energy Facility Policy reinforcement and stimulating regional projects on waste-to-energy conversion for medium-sized cities in South East Asia using Panay, Philippines, as a case.

Location: Date: Brief Description:	Philippines, Indonesia, Lao PDR February 2006 – December 2006 The overall objective of the project is to reinforce the policies in South East Asia, and particularly in the Philippines, on energy use of Municipal Solid Waste (MSW) by building the capacities of both national and urban/city planners and developers in the field and strengthening relevant institutional frameworks.
Client: Project: Location: Date: Brief Description:	EU-Thailand Economic Cooperation, Small Project Facility/Asian Institute of Technology Training on, and transfer of, efficient EU technologies in the sugar sector in Thailand Thailand January 2006 – May 2007 The overall objective of the project is to prepare the Thai sugar mills for business co-operation with European suppliers of technologies associated with the sugar sector.
Client: Project: Location: Date: Brief Description:	Bronzeoak Limited Pan-regional Prospects for Vehicular Fuel Ethanol From Sugar Based Feedstocks Cambodia, Indonesia, Lao PDR, Vietnam January 2006 – November 2006 The aim of the project is to increase the market awareness in the four target countries of the benefits of a government policy or programmes for ethanol use as vehicle fuel, and encourage the stakeholders in each country to work with their respective governments and organisations to implement such policies or programmes.
Client: Project: Location: Date: Brief Description:	Swedish International Development Agency (SIDA) Vietnam-Sweden Rural Electrification Vietnam October 2005 – December 2008 The project consists of the following areas: <ul style="list-style-type: none"> • Area 1: Strengthening the implementing capacity of renewable energy policies • Area 2: Technical standards for rural electrification/electricity networks • Area 3: Mobilizing investments for renewable rural electrification • Area 4: Institutional models for community service provision & appropriate regulations • Area 5: Awareness Creation on Productive use of Energy in Rural Areas of Vietnam
Client: Project: Location: Date: Brief Description:	United Nations Environment Programme (Nairobi)/African Energy Policy Research Network Cogen for Africa Ethiopia, Kenya, Malawi, Sudan, Swaziland, Tanzania, Uganda October 2005 – June 2006 Cogen for Africa builds on the successes of the cogeneration programme in ASEAN and the Mauritius example. The project is a PDF-B activity funded by the Global Environment Facility. The activities within this scope include: <ul style="list-style-type: none"> • Production of the Full Size Project Document • Formulation of appropriate financing schemes and negotiation with financing institutions for co-funding • Stakeholders participation • Survey of potential for cogeneration
Client: Project: Location: Date: Brief Description:	TMB Bank/Royal Danish Embassy Preparation of CDM Project Design Document for Wastewater Treatment with Biogas System in two Starch Plants in Nakornratchaseema and Chacherngsao Provinces Thailand June 2005 – December 2006 Preparation of Project Design Document and assistance in CDM registration
Client: Project: Location: Date: Brief Description:	TMB Bank/Royal Danish Embassy CDM Project Design Document for Wastewater Treatment with Biogas System in Starch Plants in Kamphangphet Province Thailand August 2005 – December 2006 Preparation of Project Design Document and assistance in CDM registration
Client: Project:	CarlBro International/ EC-ASEAN Energy Facility Master Plan and Feasibility Study for the Improvement of Coal-fired Power Plants in the

Location: Date: Brief Description:	Philippines Philippines April 2005 – November 2006 The overall objective of the projects is to promote a more environmentally-friendly and efficient utilization of coal in existing coal-fired plant in the Philippines by strengthening local technical and institutional capacity and fostering energy cooperation between coal-fired plants owners and industries.
Client: Project: Location: Date: Brief Description:	Regional Biomass Energy Agency (Belgium)/EC-ASEAN Energy Facility Developing a National Scheme and Conduct of Feasibility Studies on the Implementation of Decentralised Energy Systems using Biomass and/or Indigenous Coal as Fuel in Lao PDR Lao PDR March 2005 – August 2006 The overall goal of this project is to promote the use of biomass and/or indigenous coal in decentralised power plants in Lao PDR. More specifically, it aims to: <ul style="list-style-type: none"> • Investigate, assess and map-out the availability and potential of biomass and indigenous coal as fuel; • Review commercially proven biomass/coal power generation technologies that are suitable for applications in Lao PDR; • Investigate and recommend appropriate financial sources and financial instruments that can be used in financing decentralised energy systems in Lao PDR; • Conduct feasibility studies on selected sites; • Produce a Project Implementation Guide and Market Investment Pack for every feasible project.
Client: Project: Location: Date: Brief Description:	Cagayan Electric Power and Light Co./EC-ASEAN Energy Facility Feasibility study for distributed generation and renewable energy portfolio of a distribution company Philippines March 2005 – September 2006 The objective of the project was to map out a distributed generation and renewable energy strategy for a distribution utility under a restructuring power sector. Up to three renewable energy technologies, which have the potential for distributed generation were the focus of the activities.
Client: Project: Location: Date: Brief Description:	The Cambodian Research Centre for Development /EC-ASEAN Energy Facility Feasibility Study of Renewable Energy Options for Rural Electrification in Cambodia Cambodia March 2005 – September 2006 A key goal for this project was to identify opportunities for the private sector, in collaboration with the government, to establish private sector-led profitable rural energy enterprises and to develop these into bankable projects.
Client: Project: Location: Date: Brief Description:	Philippine Rice Research Institute/EC-ASEAN Energy Facility Enhancing the energy self sufficiency of rice mills Philippines February 2005 – August 2006 The main goal of this project was to identify rice mills or cluster of rice mills suitable for the implementation of rice husk energy plants. The technically feasible and commercially viable projects were selected and developed into investment opportunities. The investment forum aimed to bring in local private sectors, rice mills and foreign investors to implement rice husk energy plants.
Client: Project: Location: Date: Brief Description:	COGEN Center-AIT/EC-ASEAN Energy Facility Capacity building in formulating harmonized policy instruments for the promotion of renewable energy and energy efficiency in the ASEAN Member Countries ASEAN Member Countries January 2005 – January 2006 The specific objectives of the project are: <ul style="list-style-type: none"> • To analyse and compile the current Renewable Energy (RE) and Energy Efficiency (EE) policies in the different ASEAN Member countries and document their success; • To analyse the specific difficulties and barriers faced by ASEAN countries in disseminating and promoting RE and EE and to understand the gaps that need to be filled up in terms of policies and regulations; • To build capacity in the formulation and implementation of harmonized renewable energy and efficiency energy policies in the ASEAN region;

	<ul style="list-style-type: none"> To create a network of policy makers, business executives, consumers and civil society that will push for the formulation and adoption of appropriate and consistent policy instruments.
Client: Project: Location: Date: Brief Description:	COGEN Center-AIT/EC-ASEAN Energy Facility Setting up of National Associations for Cogeneration and Decentralized Energy Systems in ASEAN Countries ASEAN Member Countries January 2005 – January 2006 The main objective of this project was to establish National Associations for promoting cogeneration and distributed energy systems in individual ASEAN countries. The project also aimed to assist in the creation of a regional network among these associations in the different countries.
Client: Project: Location: Date: Brief Description:	European Commission Study on the Energy Sector of the Philippines Philippines January 2005 – April 2005 The objective of the study was to have a better understanding of the issues facing the Philippine energy sector, with emphasis in the renewable energy sub-sector, and of where EU reform experience might be of relevance.
Client: Project: Location: Date: Brief Description:	European Commission EC-ASEAN COGEN Programme Phase III ASEAN & Europe January 2002 – December 2004 COGEN Phase III has been oriented towards concrete projects both for demonstration purposes and to enhance the implementation of cogeneration in the ASEAN region through partnerships between the European and ASEAN companies. The Programme directly increased EU-ASEAN economic co-operation by: <ul style="list-style-type: none"> approximately 208.8 million Euro contributing 174MW to the ASEAN energy supply avoiding approx. 1.7 million tonnes of carbon equivalent/year of emissions (563 MW) increasing level of cogeneration in ASEAN by 5.7% (5,768 MWe) increasing the confidence of the ASEAN end-users in modern cogeneration technologies bringing new, more efficient technologies to the region, in key sectors such as the sugar sector in Thailand and in the palm oil sector in Malaysia. increasing awareness of ASEAN and EU stakeholders on cogeneration through seminars, training events and study tours (around 3,800 participants from most EU and ASEAN countries) and various marketing means. Over 200 potential cogeneration projects were identified during COGEN 3.
Client: Project: Location: Date: Brief Description:	European Commission EC-ASEAN COGEN Programme (Phase I & Phase II) ASEAN & Europe January 1991 – January 1999 The COGEN Programme is an economic cooperation programme between the European Commission (EC) and the Association of South-East Asian Nations (ASEAN) coordinated by the Asian Institute of Technology (AIT), Bangkok, Thailand. Its aim is to accelerate the implementation of proven technologies generating heat and/or power from wood and agro-industrial residues through partnerships between European and South-East Asian companies. Activities included: <ul style="list-style-type: none"> Management of an economic cooperation fund from the European Commission for the promotion of clean and efficient energy technologies in South East Asia Assessment of biomass resources, potential uses for energy and identification of appropriate technology suppliers Information scanning and dissemination: strategic business and technical information is disseminated both in ASEAN and Europe Identification/development of business opportunities Development and management of databases Technical, project development and financing advice Pre-Investment and feasibility studies Capacity building activities
Client:	European Commission

Project: Location: Date: Brief Description:	Full Scale Demonstration Project (FSDP) Implementation ASEAN countries 1992 – December 2004 The Project consisted of the implementation of proven cogeneration technologies on a full-scale basis using biomass, coal and natural gas as fuel in order to demonstrate their technical reliability and economic viability. Projects implemented within this framework qualify according to the criteria of: technical and commercial viability, replicability, and national energy/environmental impact. More than 20 FSDPs with a total capacity of close to 150 MWe and an aggregated project cost of close to 300 million Euro have been implemented in the ASEAN region.
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Annex B

Private Sector Project Development and Implementation

Client: Role: Location: Brief Description:	Various solar project developers in the Philippines Consultant/Owner's Engineer Various locations in the Philippines With FA Phils, and/or as part of FA's support to USAID B-LEADERS program, a portfolio of solar projects in the Philippines is being supported in the different aspects of its development, financing and implementation, such as, but not limited to the following: <ul style="list-style-type: none"> • 100 MW Greenergy solar power plant in Ilagan, Isabela • 40 MW Botolan solar power plant in Botolan, Zambales • 10 MW SJC solar power plant in San Jose, Nueva Ecija • 45 MW Pilipinas EINSTEIN solar power plant in Pangasinan • 28 MW Pilipinas NEWTON solar power plant in Pangasinan • 15 MW CleanTech solar power plant in Bulacan
Client: Role: Location: Brief Description:	Various developers in the Philippines Co-developer Various locations in the Philippines With FA Phils as the project originator, the portfolio consists of around 10 biomass projects using residues and fast-growing trees/grass plantation in the range of 3-12 MW in capacity.
Client: Role: Location: Brief Description:	Various municipalities in Thailand Co-developer 5 Cities/municipalities in Thailand The portfolio consists of 5 x 9.9 MWe MSW to Energy project developed by Azur, the investment partner of FA. The project was developed and de-risked to a level where it was investable by a Chinese Consortium who is now preparing to start construction of the projects.
Client: Role: Location: Brief Description:	SunAsia Energy, Inc. Consultant Cebu, Negros and Pangasinan, Philippines Full Advantage Phils is SunAsia's consultant for three solar farm projects consisting of a 50 MW solar-PV power plant in Toledo, Cebu, 30 MW in Victorias, Negros and 20 MW in Dagupan, Pangasinan. FA has completed the conduct of Feasibility Study for investors, the banks and the BOI.
Client: Role: Location: Brief Description:	Boonwan Group Investment Consultant Thailand FA partners with Rich Consulting in raising USD 25-30 million for the expansion and new projects of the Boonwan Group, whose businesses include starch processing, activated carbon, cogeneration, biogas-to-energy and solar rooftop.
Client: Role: Location: Brief Description:	Malaybalay Bio Energy Corporation (MBEC) Co-developer Bukidnon, Philippines MBEC is a 12 MW biomass power plant developed to generate electricity from rice husk, corn cobs and napier grass as fuel. The electricity produced will be sold to the national grid via the feed-in-tariff scheme of the Government.
Client: Role: Location: Brief Description:	PDI Energy Company Limited Owner's Engineer Suratthani, Thailand The project is being developed and implemented by PDI Energy, a subsidiary of a publicly listed company. It consists of 9.9 MWe power plant in Suratthani, Thailand to be fuelled by oil palm wastes and other biomass.
Client: Role: Location: Brief Description:	Thien Tan Investment Construction Joint Stock Company Owner's Engineer Quang Ngai, Vietnam Thien Tan Group is a power business company, among others, that owns and operates hydropower plants in Vietnam. The new addition into the portfolio is a solar power plant

	of 20 MW in capacity. Additional capacities are planned.
Client: Role: Location: Brief Description:	TMB Bank / Global Green Holding Co., Ltd. Lender's Engineer Songkhla, Thailand FA has been selected by TMB Bank and Global Green, the developer of the project, to provide Lender's Engineer Services for the Implementation of a 9.5 MW Biomass Project in Songkhla Province, Thailand. The fuel of the biomass power plant comes from wood residues, including rubber wood stumps. The project employs a steam boiler to drive a condensing steam turbine. The latter is connected to a generator for producing electricity to be exported to the Provincial Electricity Authority grid under the Very Small Power Producer scheme.
Client: Role: Location: Brief Description:	Lanka BioEnergies Pvt. Ltd. Mentoring, business development, deal facilitation, financial packaging Sri Lanka FA's services to the project comprise the following aspects: 1. Identification of, and introduction to, investors; 2. Deal facilitation & negotiation support; 3. Financial packaging which includes production of Information Memorandum, investment Briefs, Financial Models 4. Provision of commercial and technical support
Client: Role: Location: Brief Description:	PALMCI Owner's Engineer Ivory Coast FA has been mandated by PALMCI to act as Owner's Engineer in the implementation of its portfolio of 10 Biogas-to-Energy projects. The main responsibilities include: <ul style="list-style-type: none"> • Preparation of bidding documents and preliminary screening of suppliers to be invited to bid • Evaluation of proposals and selection process • Assistance to the client in negotiation with shortlisted suppliers • Project Management Team (PMT) during construction • Support in commissioning, performance test and handing over
Client: Role: Location: Brief Description:	PALMCI/SIFCA Group Preparation of Business Plan Ivory Coast Study on the most appropriate business mode and preparation of a Business Plan for the establishment of PALMCI's energy business to implement cogeneration and biogas-to-energy projects using biomass and palm oil mill effluent (POME) as feedstock. The energy generated by the energy business as an independent power producer will be sold to the palm oil mills, the surrounding villages and the national grid. The total value of the projects in the pipeline is close to USD 150 million.
Client: Role: Location: Brief Description:	PALMCI Optimization of Energy Production and Utilization in Palm Oil Mills Ivory Coast Provision of technical assistance to PALMCI in optimizing the energy production using palm oil residues from PALMCI's 10 palm oil mills and utilizing the energy generated for the requirements of the mills and villages through: <ul style="list-style-type: none"> • Assessment of biomass fuel availability • Analysis of current energy demand and supply • Estimation of future energy demand • Proposal of optimal cogeneration technologies and configurations • Basic design and technical analysis of the proposed cogeneration systems
Client: Role: Location: Brief Description:	San Jose City I Power Corporation Co-developer San Jose City, Nueva Ecija, Philippines The project has an installed capacity of 11.5 MW. It uses exclusively rice husk as fuel from 20 members of the San Jose City Rice Millers Association. The power plant of San Jose City I Power is the first biomass power plant to sell power to the Philippine grid via the FIT scheme.
Client:	Kyoritsu Co., Ltd. (Japan)

Role: Location: Brief Description:	Mentoring, business entry support, deal facilitation, financial packaging Thailand <ul style="list-style-type: none"> Assistance in the preparation of Business Plan and investment pitch; Identification of and introduction to investors; Deal facilitation & negotiation support; Financial packaging which includes production of Information Memorandum, Investment Briefs, Financial Models On-the-ground logistical, commercial, research and marketing support during project development and implementation up to completion of construction.
Client: Role: Location: Brief Description:	CarbonBW (Thailand) Ltd. Fuel Availability Studies Thailand Full Advantage is tasked with conducting the independent assessment of the availability of biomass to be used as fuel for: <ul style="list-style-type: none"> a biomass power plant with an installed capacity of 9.5 MWe in Samutsakhon province, Thailand. a biomass project in Thung Sang, Thung Yai, Thailand.
Client: Role: Location: Brief Description:	German utility Co-development (through FA's investment company, Azur Pacific Capital) Thailand The portfolio consists of four biomass projects ranging in size from 6 MW to 9 MW. The projects are implemented to sell power to the utility under the Thai Very Small Power Producers (VSPP) scheme.
Client: Role: Location: Brief Description:	Sumatra Copper and Gold Plc. (SCG) Pre-feasibility Study South Sumatra, Indonesia The pre-feasibility study was conducted to ascertain the technical feasibility, and economical and financial viability of the 7.5 MW captive power plant proposed for Tembang Gold Mining and Processing (GM&P) project.
Client: Role: Location: Brief Description:	Ratchaburi Electricity Generating Holding PCL. (RATCH) Fuel Availability Preliminary Study, Advisory Services Songkla, Trang, Suratthani, Thailand RATCH intends to put up 9.9 MW power projects located in Songkla, Trang, and Suratthani provinces that will utilize wood waste and palm oil waste as the primary fuel. The project will produce electricity for sale to the grid.
Client: Role: Location: Brief Description:	SPM-COGEN Sdn. Bhd. Co-development Chiangmai, Thailand The project consists of 3x1.0 MW gasifier plants using biomass as fuel to produce electricity within the VSPP scheme of Thailand.
Client: Role: Location: Brief Description:	KLD Project Development and Technical Consultant Thailand KLD is a power generating SPC using wood bark as fuel in a 9.5 MW biomass power plant implemented as a VSPP project selling electricity to the grid of Thailand. FA is the Consultant to the external investor.
Client: Role: Location: Brief Description:	Fondation Energies pour le Monde Independent Acceptance Test Inspector Cambodia The project consists of a gasifier plant using biomass as fuel to produce electricity for a mini-grid within the community in Kampong Thom, Cambodia.
Client: Role: Location: Brief Description:	EPC Co-development Thailand The project is an integrated biogas-to-energy and biocompost facility aimed to process the wastes coming from a molasse-based bioethanol plant and a sugar mill in Central Thailand. The project consists of two components: <ul style="list-style-type: none"> Biomethanation facility, which will produce biogas and generate electricity from 10

	MW of generating capacity; and <ul style="list-style-type: none"> Composting facility, which will produce 90,000 tonnes of organic fertilizer per year.
Client: Role: Location: Brief Description:	SBP Co-development Chiangmai, Thailand This 9.9 MWe power plant is being developed to sell electricity to the nearby estate and to the grid via the Provincial Electric Authority.
Client: Role: Location: Brief Description:	SBC Consultant Thailand This project consists of a 6.0 MW biomass power plant using corn cobs and other biomass as fuel. The electricity to be generated will be sold to the grid within the Very Small Power Producers (VSPP) scheme of Thailand.
Client: Role: Location: Brief Description:	Sweet Crystals Integrated Sugar Mill Corporation Feasibility Study Pampanga, Philippines The project is a new cogeneration plant using bagasse as fuel to supply the steam and electricity requirements of the sugar mill. Excess electricity will be sold to the grid.
Client: Role: Location: Brief Description:	ATP Power Feasibility Study Kalimantan, Indonesia The Feasibility Study was commissioned to analyze the technical feasibility and economic viability of implementing a 12 MWe coal-fired power plant to supply electricity to ATP's coal port terminal and its neighboring terminals.
Client: Role: Location: Brief Description:	Armadillo Holdings, Inc. Feasibility Study Philippines The Feasibility Study was conducted for a 10 MW biomass-fired power plant using rice husk as fuel in the central part of Luzon.
Client: Role: Location: Brief Description:	BECO Fuel Availability Study Prachinburi, Thailand. BECO is a subsidiary of the Advance Alliance Power Business, which holds the largest portfolio (450 MWe) of biomass projects in Thailand. The project, consisting of a 135 MWe biomass-fired power plant will produce electricity for sale to the Energy Generating Authority of Thailand (EGAT) and to the industries within proximity of the proposed power plant.
Client: Role: Location: Brief Description:	Agro Energy Co. Ltd. Project Management and Owner's Engineer Choburi, Thailand Agro Energy's project aims to implement and produce bioethanol from dried cassava chips. The capacity of the plant is 200,000 LPD.
Client: Role: Location: Brief Description:	NY Ethanol Co. Ltd. Project management and Owner's Engineer Choburi, Thailand The project consists of a production of 200,000 LPD of bioethanol from dried cassava chips.
Client: Role: Location: Brief Description:	Dan Chang Bio-Energy Co., Ltd. Independent Advisory Services, Feasibility Study, Full Scale Demonstration Project (FSDP) Evaluation, Sourcing of Funds, Performance Monitoring Supahanburi, Thailand This is a Special Purpose Company created by the MitrPhol Group to implement a 53 MWe cogeneration plant using bagasse and other biomass as fuel. It consists of a 40 MWe new, high pressure system generating electricity and steam for the needs of the MitrPhol Sugar Mill. 25 MWe of excess power is sold to the national grid on a firm 21-year contract.

Client: Role: Location: Brief Description:	PhuKhieo Bio-Energy Co., Ltd. Independent Advisory Services, Feasibility Study, FSDP Evaluation, Sourcing of Funds, Performance Monitoring Chaityaphum, Thailand This 65 MWe cogeneration plant, which consists of a 40 MWe new, high pressure system and 25 MWe existing equipment, was designed to provide the energy (steam and power) needs of UFIC, a sugar mill within the same group, and to use its bagasse as fuel. 29 MWe of electricity is sold to the grid.
Client: Role: Location: Brief Description:	THS Bio-Energy Sdn. Bhd. FSDP Evaluation, Advisory Services, Performance monitoring Sabah, Malaysia This 14 MWe cogeneration plant uses the oil palm empty fruit bunches (EFB), fibres and shell as fuel. It utilizes a boiler with a capacity of 80 ton/hour at 70 bar and 402°C live steam. The electricity generated is used in the palm oil process and the excess of around 10MWe is exported to the grid. In addition, 25 tonnes of steam is produced and used for palm oil processing.
Client: Role: Location: Brief Description:	Rayong Municipality FSDP Evaluation, Performance monitoring Rayong, Thailand This municipal waste to fertilizer and energy plant treats 25,550 tons municipal solid waste (MSW) per year through anaerobic digestion, produces 5,800 tons of organic fertilizer and generates 5,100 MWh per year of electricity.
Client: Role: Location: Brief Description:	ECO Special Waste Management Private Limited FSDP Evaluation, Performance monitoring Singapore This 1.0 MW cogeneration plant was designed and operated to provide steam and electricity requirements of the waste management operation of the plant using wood chips from tree trimming and horticultural wastes.
Client: Role: Location: Brief Description:	Bee Joo Industries, Pte Ltd. FSDP Evaluation, Performance monitoring Singapore The cogeneration plant uses wood chips from used pallets, building materials and furniture. The steam and electricity generated by the plant is supplied to the waste management operation of the company. Heat recovered from the plant is used for the various industrial waste processing operations of the company.
Client: Role: Location: Brief Description:	Titi Serong Edar Sdn Bhd FSDP Evaluation, Performance monitoring Perak, Malaysia Implemented by a rice mill, the 1.5 MW project generates steam and power for the requirements of the rice mill.
Client: Role: Location: Brief Description:	Kumpulan Guthrie Sg Dingin Palm Oil Mill FSDP Evaluation, Performance monitoring Kedah, Malaysia Guthrie, a palm oil company implemented this cogeneration project to provide solely for the electricity and steam requirements of its palm oil factory.
Client: Role: Location: Brief Description:	Patum Rice Mill and Granary Public Co. Ltd. Feasibility Study, Engineering & Tendering of EPC Contract, Independent Adviser Pathumtani, Thailand The rice mill had an existing 2.8 MWe cogeneration plant which supplies part of the mill's energy requirements. This cogeneration plant was upgraded by replacing the turbo-generator to about 10 MWe capacity. Excess power from this plant is sold to the grid within the Small Power Producer (SPP) scheme of Thailand.
Client: Role: Location: Brief Description:	A.T. Biopower Co. Ltd. Independent Engineer, Advisory Services Central Thailand The project consists of 5 power plants of about 18 MWe each using rice husk as fuel. They will be located in the rice bowl areas of Central Thailand. The electricity generated will be sold to the grid as an SPP.

Client: Role: Location: Brief Description:	Angkor Bio Cogen Co., Ltd Feasibility Study, Investment Brief, Advisory Services, Sourcing of Funds, CDM Activities Phnom Penh, Cambodia Angkor Bio Cogen intends to implement a 2.0 MWe cogeneration project in its rice milling facility in Cambodia that will utilize rice husk as the primary fuel. At present, the mill is using on-site power generating unit which uses diesel as fuel. Initially, the electricity and steam to be generated will be used internally. This cogeneration project has earned the distinction as the first CDM project approved by the DNA in Cambodia.
Client: Role: Location: Brief Description:	Gulf Electric Public Co., Ltd. Fuel Availability Study, Project Advisory Trang Province, Thailand Gulf Electric PCL intends to put up a 20 MWe power project that will utilize wastes from rubberwood as the primary fuel. The project will produce electricity for sale to the grid. The company also intends to develop the project for CDM purposes.
Client: Role: Location: Brief Description:	Thai Power Supply /Electrowatt-Ekono Project Advisory Services Chacheungsao, Thailand The principal aim of the study is to find out the problems associated with the operation of the existing ESP in the TPS power plant and prepare documentation for the upgrading of power plant equipment.
Client: Role: Location: Brief Description:	Electricity Generating Public Co., Ltd. Fuel Availability Study, Advisory Services Yala, Thailand A 22 MWe rubber wood waste-fired cogeneration plant implemented at a plymill/sawmill factory in Southern Thailand. Additional fuel will come from the residues of sawmills in the vicinity.
Client: Role: Location: Brief Description:	Homet Raya Sdn. Bhd. Advisory Services, FSDP evaluation Sarikei, Sarawak, Malaysia This 1.65 MWe wood waste-fired power plant consists of a boiler supplying steam to a fully condensing turbine. Power is supplied to the sawmill, while part of the steam is used for kiln drying.
Client: Assignment: Location: Brief Description:	Sim Hoe Wood Industry Sdn. Bhd. Advisory Services, FSDP evaluation Bentong, Pahang, Malaysia This cogeneration plant supplies all the electricity needed for the complete factory (sawmill and molding), as well as 4 tons of steam for the kiln drying operation.
Client: Assignment: Location: Brief Description:	Chia Meng Co. Ltd. Advisory Services, FSDP evaluation Nakorn Ratchasima, Thailand This cogeneration plant consists of a boiler supplying steam to a condensing turbine of a capacity of 2.5 MWe. Flue gas and/or steam from the boiler can be used for paddy drying.
Client: Role: Location: Brief Description:	Pembangunan Papan Lapis (S) Sdn Bhd. Advisory Services, FSDP evaluation Keningau, Sabah, Malaysia This 10 MWe wood waste-fired power plant supplies two-thirds of the existing power requirement of the mill, replacing existing diesel gensets.
Client: Role: Location: Brief Description:	PT. KurniaMusi Plywood Industries Advisory Services, FSDP evaluation Palembang, South Sumatra, Indonesia This installation involves a turnkey supply of a wood waste-fired boiler. The steam is used for the process as well as to run an existing turbo-generator with a net output of 3.2 MWe. The boiler replaces 2 old boilers, which are not able to provide sufficient steam for the turbine.

Client: Role: Location: Brief Description:	Kilang SawitLinggi Sdn. Bhd. Advisory Services, FSDP evaluation Pontian, Johore, Malaysia This cogeneration plant was implemented to cover the palm oil mill power and heat requirements using the wastes from the mill.
Client: Role: Location: Brief Description:	Kumpulan Guthrie Berhad Advisory Services, FSDP evaluation Kulim, Kedah, Malaysia This energy plant burns wood wastes to heat thermal oil up to 280 °C. The heated oil is then used: <ul style="list-style-type: none"> • for heating the continuous press for pressing the fiber; • for heating water in a boiler to generate 10 tons of steam/hr; and • for pre-heating the primary air used for the energy plant combustion chamber.
Client: Role: Location: Brief Description:	The Southern Palm (1978) Co., Ltd. Fuel Availability Study, Project Advisory Services Surathani, Thailand The cogeneration plant was planned to be installed in crude palm oil factory. The energy generated was to provide self sufficiency in the mill's power and process steam requirements, and the excess power would be sold to the grid. The cogeneration plant was designed to use the residues (i.e. empty fruit bunches, fibers and shells) generated by the palm oil mill.
Client: Role: Location: Brief Description:	Ban Heng Bee Rice Mill (1952) Sdn. Bhd. Advisory Services, FSDP evaluation Pendang, Kedah Darul Aman, Malaysia This privately-owned rice mill is both for milling and drying paddy. The 450 kWe rice-husk fired cogeneration plant supplied the mill's power and heating requirements of the 56 dryers that were previously running on heavy fuel oil.

Annex C

Experiences in CDM Activities

Client: Role: Location: Brief Description: Project Status:	A.P.K. Green Energy Co., Ltd. (APK) CDM Partner Songkla, Thailand APK intends to implement a biomass-fired cogeneration plant in Songkla province. The power plant will have 9.0 MW installed capacity produced from wood waste in the local area. The steam and part of the electricity generated will be supplied to the nearby sawmill and the excess power will be sold to the grid. PDD writing
Client: Role: Location: Brief Description: Project Status:	Energie Baden-Württemberg AG (EnBW) CDM Adviser; PoA Consultant Chiangrai, Phayao, Phrae, and Sukhothai, Thailand EnBW intends to implement biomass-fired power plants located in Chiangrai, Phayao, Phrae, and Sukhothai provinces. The power plants will have 6.0 MW installed capacity produced from renewable energy sources in the local area. PDD writing
Client: Role: Location: Brief Description: Project Status:	Dan Chang Bio-power Co., Ltd.(DCBC) Monitoring and verification support Thailand This is a Special Purpose Company created by the Mitr Phol Group to implement a 53 MWe cogeneration plant using bagasse and other biomass as fuel. It consists of a 40 MWe new, high pressure system generating electricity and steam for the needs of the MitrPhol Sugar Mill. 25 MWe of excess power is sold to the national grid on a firm 21-year contract. Registered; Verification stage
Client: Role: Location: Brief Description: Project Status:	Phu Kiew Bio-power Co., Ltd (PKBC) Monitoring and verification support Thailand This 65 MWe cogeneration plant, which consists of a 40 MWe new, high pressure system and 25 MWe existing equipment, was designed to provide the energy (steam and power) needs of UFIC, a sugar mill within the same group, and to use its bagasse as fuel. 29 MWe of electricity is sold to the grid. Registered; Verification stage
Client: Role: Location: Brief Description: Project Status:	Phnom Penh Sugar Co., Ltd (PSC) CDM partner Cambodia The project consists of a bagasse-fired cogeneration plant in Kampong Speu, Cambodia with a gross electric capacity of 16 MW for the first phase and additional 20 MW for the second phase. The project will utilize the bagasse from a sugar mill. The steam and part of the electricity produced will be used by the sugar mill and the excess electricity will be sold to the Cambodian National Grid. ERPA negotiation
Client: Role: Location: Brief Description: Project Status:	Sriwattana Green Power Co., Ltd. (SGP) CDM partner Buriram, Thailand SGP's project consists of a 9.9 MW power plant using Eucalyptus bark as fuel. The electricity to be generated by the biomass plant will be sold to the national grid via the VSPP scheme. ERPA signed
Client: Role: Location: Brief Description: Project Status:	Hanh Tinh Xanh Co., Ltd (HTX) Carbon Development Partner Vietnam The project of HTX consists of a waste-to-energy system using fresh MSW to generate biogas to be used as fuel for electricity generation. The electricity will be sold to the grid. On-going

Client: Role: Location: Brief Description: Project Status:	Gulf JP TLC Co., Ltd (formerly known as Saraburi A Cogeneration Co., Ltd.) CDM Adviser and Carbon Asset Manager Saraburi, Thailand The project is a 110 MW cogeneration plant located in Saraburi province, central part of Thailand. The project intends to export electricity to the grid using the Small Power Producers (SPP) scheme and electricity and heat (steam) to the Industrial Customers in the area. ERPA signed; PDD writing
Client: Role: Location: Brief Description: Project Status:	Gulf JP KP1 Co., Ltd. (formerly known as Saraburi B Cogeneration Co., Ltd.) CDM Adviser and Carbon Asset Manager Saraburi, Thailand The 110 MW SBC Plant is located inside an industrial estate in Saraburi province. The project site is encircled among industrial companies and intends to export electricity to the grid using the SPP scheme, and electricity and heat to the industrial customers in the area. ERPA signed; PDD writing
Client: Role: Location: Brief Description: Project Status:	Gulf JP KP2 Co., Ltd (formerly known as Industrial Cogen Co., Ltd) CDM Adviser and Carbon Asset Manager Saraburi, Thailand This 110 MW cogeneration plant is located in Saraburi province, Thailand. The project intends to export electricity to the grid using the SPP scheme and electricity and heat to the industrial customers in the area. ERPA signed; PDD writing
Client: Role: Location: Brief Description: Project Status:	Gulf JP NK2 Co., Ltd (formerly known as Combined Heat and Power Co., Ltd) CDM Adviser and Carbon Asset Manager Saraburi, Thailand The 110 MW CHP plant is located inside an industrial estate in Saraburi province, Thailand. The project site is situated within the developed industrial estate encircled among industrial companies. The project intends to export electricity to the grid using the SPP scheme and electricity and heat to the industrial customers in the area. ERPA signed; PDD writing
Client: Role: Location: Brief Description: Project Status:	Gulf JP CRN (formerly known as Pathum Cogeneration Co., Ltd) CDM Adviser and Carbon Asset Manager Pathumtani, Thailand PCC is a 110 MW cogeneration plant located in Pathumthani province, central part of Thailand. The project site will be developed near an industrial/commercial base. The project intends to export electricity to the grid using the SPP scheme and electricity and heat to the industrial/commercial customers in the area. ERPA signed; PDD writing
Client: Role: Location: Brief Description: Project Status:	Gulf JP NNK (formerly known as Chachoengsao Cogeneration Co., Ltd.) CDM Adviser and Carbon Asset Manager Chachoengsao, Thailand CCC is a 110 MW trigeneration project located in Chachoengsao province of Central Thailand. The project intends to export electricity to the grid using the SPP scheme and electricity and chilled water to the industrial customers in the area. ERPA signed; PDD writing
Client: Role: Location: Brief Description: Project Status:	Gulf JP NNL (formerly known as RIL Cogeneration Co., Ltd.) CDM Adviser and Carbon Asset Manager Rayong, Thailand The 120 MW trigeneration project of RCC is located inside an industrial estate in Rayong province of Eastern Thailand. The project site is situated within the developed estate, encircled among industrial companies. The project intends to export electricity to the grid using the SPP scheme and electricity and chilled water to the industrial customers in the area. ERPA signed; PDD writing
Client: Role: Location:	TCT Carbon Asset Developer Thailand

Brief Description:	The TCT LFG Power Plant Project is a landfill gas (LFG)-to-energy plant. The LFG will be extracted from an existing and future lands fills and utilize it to generate electricity that will be exported to the Thailand grid through the Provincial Electricity (PEA) of Thailand via the Very Small Power Purchase (VSPP) agreement.
Project Status:	Under validation
Client: Role: Location: Brief Description: Project Status:	Coke Philippines CDM Adviser (consortium partner with SEEDLinks) Philippines This is a portfolio of fuel switching projects in different locations in the Philippines. On-going
Client: Role: Location: Brief Description: Project Status:	EDC CDM Adviser (consortium partner with SEEDLinks) Philippines This is a portfolio of hydro, wind and geothermal projects in different locations in the Philippines. On-going
Client: Role: Location: Brief Description: Project Status:	International Finance Corporation (IFC) CDM Consultant Philippines The objective of this assignment is to provide an assessment of the CDM market in the Philippines, identify various innovative financing mechanisms and develop a market framework that will cater to small-scale CDM projects. Completed
Client: Role: Location: Brief Description: Project Status:	The World Bank CDM Consultant Vietnam The components of the project are: a) Scoping study b) Identification of project and programme activities c) Preparation of project ideas Completed
Client: Role: Location: Brief Description: Project Status:	Asian Development Bank CDM Consultant Vietnam The project consists of the conduct of CDM activities leading to registration of 2 x 750 MWe natural gas-fired combined cycle system in the South of Vietnam. PDD completed
Client: Role: Location: Brief Description: Project Status:	The World Bank CDM Consultant Philippines The project is part of the Carbon Finance Assist Program. The Consultant's responsibility is to conduct: d) training of banks and intermediaries to develop capacities in CDM activities e) develop appropriate business models for CDM intermediaries f) identify CDM projects and make pre-assessments on their potential to generate CERS Completed
Client: Role: Location: Brief Description: Project Status:	PP/ Mitsubishi UFJ Securities Monitoring and verification support Thailand The project activity is a biomass-based cogeneration plant designed to use rice husk as fuel to feed an advanced biomass-fired generation system with gross capacity of 9.9MW (8.91MW net) for green power generation. Registered; Verification on-going
Client: Role: Location: Brief Description:	SGEC/ Mitsubishi UFJ Securities Consultant Surathani, Thailand Provision of a monitoring and evaluation package to a biomass-fired cogeneration

Project Status:	plant to comply with the verification and issuance of CERs and enhance CER generation of the project. Registered; Verification on-going
Client: Role: Location: Brief Description: Project Status:	JS/ Mitsubishi UFJ Securities Consultant Bangkok, Thailand Provision of a monitoring and evaluation package to a landfill gas system to comply with the verification and issuance of CERs and enhance CER generation of the project. Registered; Verification on-going
Client: Role: Location: Brief Description: Project Status:	KBP/Mitsubishi UFJ Securities Consultant Sabah, Malaysia Provision of a monitoring and evaluation package to a biomass-fired cogeneration plant to comply with the verification and issuance of CERs and enhance CER generation of the project. Registered; Verification on-going
Client: Role: Location: Brief Description: Project Status:	SBE/Mitsubishi UFJ Securities Consultant Sabah, Malaysia Provision of a monitoring and evaluation package to a biomass-fired cogeneration plant to comply with the verification and issuance of CERs and enhance CER generation of the project. Registered; Verification on-going
Client: Role: Location: Brief Description: Project Status:	Mitsubishi UFJ Securities Consultant Malaysia, Philippines, Thailand The project consists of the conduct of a comprehensive study on CDM development in ASEAN Countries Completed
Client: Role: Location: Brief Description: Project Status:	Development Bank of the Philippines CDM Adviser (consortium partner with SEEDLinks) Philippines Working in partnership with SEEDLinks, our associate for CDM matters in the Philippines, FA is adviser to the project that consists of bundling of three small hydro projects for a total of 8 MW. PDD completed; Received LoA from DNA
Client: Role: Location: Brief Description: Project Status:	KGP CDM Partner and Carbon Asset Manager Konkaen, Thailand KGP's project is a 19.2 MW power plant using rice husk and other biomass as fuel. The electricity generated will be sold to the national grid. CER buyer selected; ERPA signed
Client: Role: Location: Brief Description: Project Status:	RBR CDM Adviser and Carbon Asset Manager Thailand RBR is MSW and vegetable waste management facility. The waste that RBR receives from the municipality is segregated and the organic materials fed into a biomethanation facility that produces biogas for production of electricity. FA conducts the whole CDM process and will manage the sales of the CERs to carbon buyers. PDD completed; Received LoA from Thai DNA
Client: Role: Location: Brief Description: Project Status:	KPS CDM Adviser and Carbon Asset Manager Thailand The project consists of development and implementation of a 15 MW rice husk-fired power plant. Services of FA include: selection of best buyer, assistance and advice in all stages of CDM development, assistance during annual monitoring and verification. Validation completed

Client: Role: Location: Brief Description: Project Status:	BFB CDM Adviser and Carbon Asset Manager Thailand The Starch factory is a 250 t/d starch production facility that operates approximately 240 days a year and generates around 3,400 m ³ /day of waste water at COD value of 30,000 mg/l. The new system will generate a minimum of 14.144 cu.m. per day of biogas which will be used to generate process steam and power. Registered April 2011
Client: Role: Location: Brief Description: Project Status:	Royal Danish Embassy (RDE) PDD Consultant NakornRatchasima, Thailand SIMA 1 has invested in UASB system for their wastewater treatment plant with a capacity of 2,800 cu.m./day. Biogas from the project will be used for fuel oil displacement. For registration
Client: Role: Location: Brief Description: Project Status:	Royal Danish Embassy (RDE) PDD Consultant Chachengsao, Thailand SIMA 2 has invested in AFFR system for their wastewater treatment plant with a capacity of 2,200 cu.m./day. Biogas from the project will be used for rice husk displacement. For registration
Client: Role: Location: Brief Description: Project Status:	Angkor Bio Cogen Baseline Study/CDM Adviser Phnom Penh, Cambodia ABC is a 2.0 MW rice husk-fired power project implemented to supply electricity to the host rice mill and neighboring community through a mini-grid. Registered
Client: Role: Location: Brief Description: Project Status:	Mitsubishi Securities Co., Ltd. (MSCL) Project Advisory/Baseline Study Perak, Malaysia The project consisted of the conduct of a baseline study to estimate the amount of methane gas emission from a Palm Oil Mill. The palm oil mill plans to install a UASB (Upflow Anaerobic Sludge Blanket) to replace the conventional lagoon. The methane gas generated by the biogas plant will be used to generate steam and electricity. Study completed
Client: Role: Location: Brief Description: Project Status:	Mitsubishi Securities Co., Ltd (MSCL) Project Advisory/Baseline Study General Santos City, Philippines The aim of this project is to capture the methane generated through an anaerobic system from the segregated solid waste. The study includes the establishment of methane baseline emissions related to the disposal of food wastes and the verification protocol for monitoring the emissions. Study completed
Client: Role: Location: Brief Description: Project Status:	Bumibiopower Sdn. Bhd. Baseline & Feasibility Study/Project Advisory Perak, Malaysia The project aims at treating effluent wastewater from a Palm Oil Mill using anaerobic treatment. The biogas (containing methane) generated by anaerobic treatment will be captured for energy conversion and will be used as a fuel for firing steam boilers or gas engine in the power plant project. Study completed