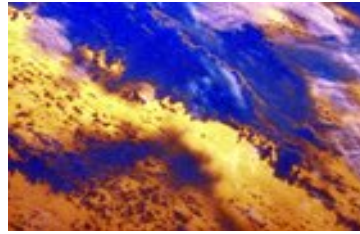


Wichet Phothiwisutwathee

Senior Consultant



Wichet is Energy and Climate Change Consultant based in ERM Bangkok office. He has extensive experience working with clients from the government, international development agencies, NGOs, and the private sectors on a wide range of climate change projects and CDM projects including government and corporate strategic advice, greenhouse gas inventory development, capacity building programme, CDM consultation and advice on carbon market. Wichet has also worked on several energy projects, such as fuel options strategy study for Thailand; Minimum Energy Performance Standard (MEPS); and energy conservation programme.

Wichet advised the Thai Government on its strategy for the CDM, including an analysis of potential CDM projects in Thailand, impacts of CDM on Thailand's sustainable development, and analysis of potential investors. He also advised the Royal Danish Embassy on their CDM development programme in Thailand, which involved various capacity building workshops, calls for CDM projects, and selection of CDM projects in Thailand.

Wichet provides consultancy services to a number of private sector companies on the potential CDM projects and on how to develop a CDM project. He prepared several Project Idea Notes (PIN) and Project Design Documents (PDD) for various types of projects, including biomass power plants, anaerobic wastewater treatment facilities and geological sequestration of CO₂. His proficiency includes assessing project additionality, developing baseline methodology, and calculation of emission reduction.

Wichet also has good insight of the energy sector, which is directly related the climate change. He has worked on several energy projects, including: fuel options strategy study for Thailand; Minimum Energy Performance Standard (MEPS); household energy conservation; action plan on sustainable energy; energy labeling for household appliances and for passenger vehicles.

Fields of Competence

- Climate Change
- Economics and Policy
- Energy and Economic Modelling
- Energy Efficiency

Education

- MA in Economics, University of Cambridge, UK, 2005
- BA in Economics, University of Cambridge, UK 2001

Languages

- English
- Thai
- Basic Chinese (Mandarin)

Key Industry Sectors

- Energy
- Government
- Power & Utilities
- International Development

Key Projects

CDM PDD Preparation for a Cassava Biogas Plant, Cassava Waste To Energy Co., Ltd. (CWTE), 2006-ongoing. ERM team has provided a CDM advisory service to CWTE including preparation of CDM Project Design Document (PDD), assistance in validation, assistance in Thai DNA approval process, analysis of environmental impacts, and public participation process for a biogas project in a cassava plant in Kalasin, Thailand.

CDM Training, Federation of Thai Industries (FTI), 2006. ERM assisted FTI in its CDM training programme which was organised in collaboration with NEDO (New Energy and Industrial Technology Development Organisation) and JETRO (Japan External Trade Organisation). The 2-day training session was attended by over 600 delegates from industrial sectors, academics, government officers and NGOs.

CDM Feasibility Assessment for Biomass Fuel Substitution in Cement Plants, Asia Cement Public Company Limited, 2006-ongoing. ERM-Siam is assessing the feasibility of partial substitution of fossil fuels, mainly coal and lignite, with biomass used to generate heat for clinker production as a CDM project. The study includes the assessment of additionality, availability of biomass surplus and applicability of existing approved methodology.

Greenhouse Gas Reporting Tool, Cement Thai Building Products (CBP), 2006. ERM team worked closely with CBP to develop a GHG reporting tool in the form of a spreadsheet with a built-in explanation and all necessary coefficient and default factors. The scope of work also includes a discussion of how to define the boundary of emission from all the facilities in question.

Regional Workshop on Climate Change and CDM, DANIDA, 2005-2006. ERM team was commissioned by DANIDA, in collaboration the Office of Natural Resource and Environmental Policy and Planning (ONEP) to conduct training for government officials and interested parties in the private sectors about climate change and CDM. Trainings took place in 5 different regions in Thailand, targeting different potential industries such as palm oil plants, swine farms, cassava plants, sugar mills, rice mills.

CDM Approval Training, ECON Centre for Economic Analysis, 2005. ERM-Siam was commissioned by ECON, under the capacity building programme supported by DANIDA, to provide training to examine and approve CDM projects for prospective members of Thai DNA. The training provide a hands-on experience for assessing whether the proposed CDM project meets the sustainable development criteria set by ONEP.

Feasibility Study on Greenhouse Gas Reduction and CDM Opportunity, Confidential Client, 2005-2006. ERM has been commissioned by the client to assess the CDM feasibility of potential projects that can reduce GHG emission from an offshore operation in the Gulf of Thailand. The study reviews current practices for reducing GHG emission from similar operation elsewhere, assesses whether the project meets CDM additionality criteria, and estimates GHG emission reduction.

Outreach material on Climate Change and CDM, ECON Centre for Economic Analysis, 2005-2006. Although there were numerous sources of information about climate change and CDM worldwide, very limited information is publicly available in Thai. As part of the DANIDA's Capacity Building for CDM in Thailand, ERM-Siam was appointed to develop a website and printed materials for the Office of Natural Resources and Environmental Policy and Planning (ONEP) to provide information on climate change and CDM in Thai and in English. The website provides fundamental information on basic understanding of climate change, an origin of UNFCCC, Kyoto Protocol and CDM, as well as relevant news and other links.

Thailand Grid Electricity Baseline Study, ECON Centre for Economic Analysis, 2005. A number of potential CDM projects in Thailand are grid-connected renewable energy projects that require the calculation of grid electricity baseline in preparation of the CDM Project Design Document (PDD). ERM-Siam was commissioned by ECON, under DANIDA contract on Capacity Building for CDM in Thailand, to study the grid electricity baseline for Thailand in accordance with the approved methodology ACM0002, which will help project developer to save time and effort in obtaining necessary data and remove inconsistency in calculating emission factor among various projects.

Framework and Guideline for CDM Implementation in Energy Sector, Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy, 2005. DEDE had foreseen the role of CDM in promoting the development of renewable energy and energy efficiency and, thus, commissioned ERM-Siam to undertake this study, which focused on the potential of CDM projects in energy sector in Thailand and role of the Ministry of Energy in promoting and approving energy CDM projects in Thailand.

CDM Reforestation Feasibility: An Initial Assessment, Banpu PLC., 2005. ERM provided an initial assessment of CDM feasibility on a reforestation project to Banpu, a coal-mining company. The study reviewed the current CDM rules on reforestation and examined the eligibility of the proposed project against the CDM rules.

CDM Capacity Building for Energy Policy and Planning Office (EPPO), 2005. Recognizing the effect of energy sector on climate change, EPPO commissioned ERM-Siam to develop a short training course for their staff to gain a better understanding on energy policy and its implications on climate change, and in particular the Clean Development Mechanism (CDM). Wichet took lead in the developing the training course and material as well as the training.

CO₂ reinjection CDM feasibility study, confidential client, 2005. ERM gave support for a client in the oil & gas sector on the feasibility of CDM qualification for a project involving the reinjection of associated CO₂ from on offshore gas field development in the South China Sea. The study assessed: whether the project would meet CDM additionality criteria, an estimate of baseline CO₂ emissions, a review of the issues around project monitoring methodology, and a discussion of some of the broader political issues associated with the project and CO₂ reinjection.

CDM Training for Thai Consultants, Royal Danish Embassy 2004. ERM-Siam, in collaboration with Biomass One Stop Clearing House (BOSCH), organised a training course for Thai consultants about the Clean Development Mechanism (CDM). Wichet was involved in the design of the training course and was one of the speakers in the training. Having completed the course, Thai consultants were expected to attain a full understanding of the CDM procedure and to be able to provide consultancy services to interested parties who wish to invest in CDM projects.

Development of CDM Programme in Thailand, Royal Danish Embassy, 2003 – 2004. ERM-Siam provided back-to-back support to the Royal Danish Embassy in their search for CDM projects in Thailand. A series of workshops were organised to ensure greater understanding of CDM project development in Thailand, including a call for CDM project ideas. ERM-Siam provided technical recommendation on the application and selection processes for the financial support.

Preliminary Assessment of Swine Manure Management as a CDM project, confidential client, 2003. ERM-Siam undertook this study to assess the feasibility of an investment into anaerobic treatment technology to capture methane emission from swine manure. The study investigated the amount of GHG emission reduction according to the IPCC Guideline, assessed the financial feasibility of the project with and without financial support from CDM, and determined its contribution to Thailand sustainable development.

CDM Project Idea Note (PIN) for a Biomass Power Plant in Thailand, confidential client, 2004 – 2005. ERM-Siam provided consultancy service for a client that wished to invest in a Biomass power plant as a CDM project. In completing the Project Idea Note, Wichet assessed the project additionality, estimated greenhouse gas emission reduction, and provided recommendations of how the client was best to proceed.

Development of CDM Project Design Document (PDD) for swine farms in Thailand, Royal Danish Embassy, 2004-ongoing. ERM-Siam is commissioned by the Royal Danish Embassy to prepare CDM Project Design Document (PDD) for 3 swine rearing facilities employing an anaerobic wastewater treatment system with biogas recovery and electricity generation. CERs generated by the project will be purchased through the Danish Carbon Facility operating in SE Asia.

Project Design Document for Two Biomass Cogeneration Plant in Thailand, Mitr Phol Sugar Corp., 2004. ERM-Siam was commissioned to develop Project Design Documents (PDDs) for two biomass power plants in Thailand in order to register as CDM projects. In this project, a new baseline and monitoring methodology was developed and submitted to the Executive Board for approval and ready for validation by the Designated Operational Entity (DOE) once the methodology is approved. ERM also facilitated Mitr Phol in obtaining the approval letter from Thai Designated National Authority (DNA).

National Clean Development Mechanism Strategy Study for Vietnam. World Bank, 2001-2002. With the successful formulation of Thailand's strategy for the CDM, the World Bank then would like ERM to assist the Vietnamese National Team to devise their strategy for Vietnam. The role of ERM-Siam was to ensure that the study was carried out successfully within the time limit via consultation and a transfer of experience from the Thai study. Wichet was mainly responsible for transferring the Multi-Criteria Analysis technique to the Vietnamese National Team and for assisting them with the analysis of potential CDM projects in Vietnam.

National Clean Development Mechanism Strategy Study for the Kingdom of Thailand. World Bank, 2000-2002. This project was prompted in connection with the Kyoto Protocol, in which developed countries were required to reduce greenhouse gas (GHG) emission below their 1990 level. One way in which this target can be achieved was through a 'clean development mechanism' (CDM) where developed countries purchase 'Certified Emission Reduction' from projects that reduce GHG emission in developing countries. This study devised a strategy for Thailand based on the assessment of the country's capacity in reducing GHG emission and on the benefits to Thailand in terms of technology transfer and sustainable development. Wichet carried out the analysis of potential CDM projects, incorporating the results from the WHETHER model and the result from Multi-Criteria Analysis, taking into account such factors as cost of investment, estimated price of CO₂, economic, environmental and social impacts of potential CDM projects. He also assisted in the analysis of prospective investors.

Other Related Projects

Thailand Fuel Options, Energy Policy and Planning Office (EPPO), 2005-ongoing. EPPO has commissioned ERM to recommend the most appropriate options for fuel supply in all sectors of Thailand for the next 30 years, taking into account economic, environment and policy consideration.

Evaluating Biogas Technology in 22 Industrial Plants and Swine Farms, Energy Policy and Planning Office (EPPO), 2004 - ongoing. ERM-Siam has been commissioned by EPPO to monitor the progress of the 22 anaerobic wastewater treatment system that were granted funding from the ENCON Fund. The evaluations constitute four parts: technology, management, economic, and environmental and social impacts. The main focus is on the amount of biogas produced from the project that can be used as renewable energy. There are also other auxiliary benefits such as wastewater treatment, reducing unpleasant odour and reducing land use. ERM-Siam will also make recommendations whether the technology applied to each plant is appropriate by comparing the results with local and international benchmark.

Draft Ministerial Order for High Efficiency Washing Machines and Tumble Dryers, Department of Alternative Energy Development and Efficiency, 2003 - 2004. This study aimed to promote high efficiency washing machines and tumble dryers through the use of incentives, be it financial or non-financial. ERM-Siam undertook a market research of washing machine and tumble dryers in Thailand to classify the product and develop appropriate testing procedure. ERM's advice on appropriate efficiency level of washing machines and tumble dryers were based on the on the technological and economic feasibilities among various efficiency levels.

Municipal Action Plan for Sustainable Use of Energy, WWF-Thailand, 2003 - 2004. WWF-Thailand, Energy and Climate Change Programme, wished to reduce the amount of GHG emission through sustainable use of energy in Krabi Municipality. ERM-Siam provided consultancy services for energy survey and developed an energy profile of the municipality, based on the survey results. ERM-Siam also makes recommendation on the type of activities that will be most effective in reducing energy use as well as the sources of alternative energy that is suitable for the province.

Action Plans for Household Energy Conservation, King Mongkut Institute of Technology Ladkrabang (KMITL), 2003-2004. KMITL was commissioned by the Department of Alternative Energy Development and Efficiency to carry out a study of household conservation action plan that covered plans for better housing design and for the use of more energy efficient products. ERM-Siam was responsible for the latter, in which 7 electrical appliances were suggested as priority for actions.

Pre-feasibility Study of Fuel Consumption Labelling for Passenger Vehicles, Energy Policy and Planning Office, Thailand, 2002 - 2003. EPPO (former NEPO) commissioned ERM-Siam to conduct a pre-feasibility study to investigate the possibility of promoting the energy efficiency of passenger vehicles by means of fuel consumption labelling. Wichet involved in the design of consumer questionnaire, oversaw the consumer survey in the Greater Bangkok area, assisted in the analysis of the survey results. He also involved in the interviews with management of automobile manufacturers.

Incentive Schemes for Energy Efficient Products. National Energy Policy Office (NEPO), Thailand, 2001-2003. ERM-Siam took this policy study to make recommendations on the appropriate forms of financial and non-financial incentives to promote four energy efficient product types, namely: refrigerators, air-conditioners, electric motors and lighting ballast, based on the economics of energy efficiency of each product. Wichet assisted in economic modelling and analysis of the proposed incentive package and actively involved in the participatory roundtable workshop with the stakeholders. He also assisted in developing the institutional framework to support the schemes. Besides, he was also responsible for establishing a website to disseminate related and useful information to the general public.