VDB | Loi

April 2018

CAMBODIA POWER SECTOR UPDATE

INTRODUCTION

In the power industry, one of the main issues arises from the necessity to balance generating capacity with energy consumption. Consumption will generally increase, and it is usually the responsibility of governments to guarantee the capacity. The global trend is to opt for liberalized markets. Liberalization can occur in two ways—deregulation or privatization.

The tendency in the power industry in Cambodia is towards partial liberalization. Since 2001, with the enactment of the Electricity Law, the government has been implementing a new policy and strategy for guaranteeing the electricity supply to its citizens, which in the past has been largely underdeveloped. The participation of private enterprises is permitted at all stages of the electricity sector (generation, transmission, distribution, and supply), but vertical integration is not permitted except in the case of Electricité du Cambodge ("**EDC**"). EDC is the main electric utility company. It is government owned and is a vertically-integrated monopoly that serves mainly the larger urban areas. Rural areas of Cambodia are served by several small, privately-owned electricity enterprises.

Even though the power industry in Cambodia remains largely monopolized and is highly regulated (as it is in the case of tariffs), this document provides an explanation of the opportunities for investors to participate in this growing industry.

Foreign direct investment into Cambodia's power generation, transmission, and distribution sector, as well as other sectors, is largely unrestricted. Projects that are 100% foreign-owned are allowed, even if local partnership may be advisable under particular circumstances, especially with respect to resettling occupants on the land where power plants projects are to be located, and facilitating cooperation with relevant government entities. In Cambodia's power sector, there are a number of investments from Chinese entities in large-scale power plants, with more limited investment from Vietnamese, Thai, and Malaysian entities, among others.

The following table provides a brief summary of the current status of the electricity industry in Cambodia compared to certain other ASEAN members.

ELECTRIFICATION RATES AND PER CAPITA CONSUMPTION, 2016				
COUNTRY	ELECTRIFICATION RATE (%)	POPULATION WITHOUT ELECTRICITY (MILLIONS)	ANNUAL CONSUMPTION (KWH/PERSON)	POPULATION DENSITY (PEOPLE/KM2)
Cambodia	58.0	6.62	271	89
Laos	81.0	1.30	1,695	29
Myanmar	33.0	35.44	217	81
Thailand	100	0	2,540	134.8
Vietnam	99.2	0.80	1,439	299

km^2= square kilometers, kWh = kilowatt hour.
*Sources: The International Energy Agency ("**IEA**") for electricity consumption (IEA 2016), and the United Nations Population Fund for population in 2016*

REGULATORY OVERVIEW

The Electricity Law of Cambodia, promulgated on 2 February 2001, and amended in 2007 and 2015, regulates power sector licensing. The Electricity Law organizes a framework for electric supply and services throughout Cambodia. The law covers all activities related to the supply, the provision of services, and use of electricity, and other associated activities of the power sector.

Under the Electricity Law, there are two governmental entities responsible for regulating the electricity supply sector: The EAC and the MME.

The EAC was created under the Electricity Law and is a legal public entity granted the right by the Royal Government to be an autonomous agency tasked with regulating the power sector. It is responsible for issuing rules, regulations, and procedures, and for monitoring, guiding, and coordinating operators in the power sector, as well as consumers, including requiring them to follow the policy, guidelines, and technical standards issued by the MME. The EAC ensures that the provision of services and the use of electricity are provided efficiently, qualitatively, sustainably, and in a transparent manner.

The MME is responsible for setting and administering the government's policies, strategies, and planning in the power sector, including setting technical standards.

SUMMARY OF THE GENERAL DUTIES AND OBLIGATIONS OF THE MME AND THE EAC	
MINISTRY OF MINES AND ENERGY	**ELECTRICITY AUTHORITY OF CAMBODIA**
Develop power development plan	Issue and revoke licenses, enforce performance standards and regulations applicable to licensees, and establish licensing fees
Establish technical, safety, and environmental standards	Approve tariff rates
Establish electricity power strategies	Evaluate and resolve consumer complaints
Establish energy policies	Evaluate and resolve contract disputes involving licensees
	Review financial activities and corporate structure of licensees
	Publish reports on the power sector
	Impose penalties for violations of the Electricity Law

Types of licenses

There are eight different types of licenses that can be issued by the EAC, depending on the service to be provided by the licensee, only two of which grant the right to generate electricity. Independent power producers who have a generation license can generate and sell electricity to suppliers and industries in compliance with the power purchase agreement with the specific supplier and industry.

Consolidated licensees holding a generation license as one of its licenses, generate electricity for supply to consumers through their distribution system.

LICENSES ISSUED BY THE EAC	
TYPE OF LICENSE	**RIGHTS GRANTED UNDER THE LICENSE**
Transmission license	Right to provide electricity transmission services
Generation license	Right to generate electric power
Distribution license	Right to provide electricity distribution services
Dispatch license	Right to control, manage, and operate dispatching facilities for delivering and receiving electricity from generation, transmission, and distribution systems
Bulk sale license	Right to purchase electricity from generators or foreign countries for sale to distribution licensees or large electricity consumers
Consolidated license	Rights which may consist of a combination of rights under various other licenses granted by the EAC
Subcontract license	Right to provide electricity according to a subcontract agreement with a licensee
Retail license	Right to engage in the sale of electricity to consumers

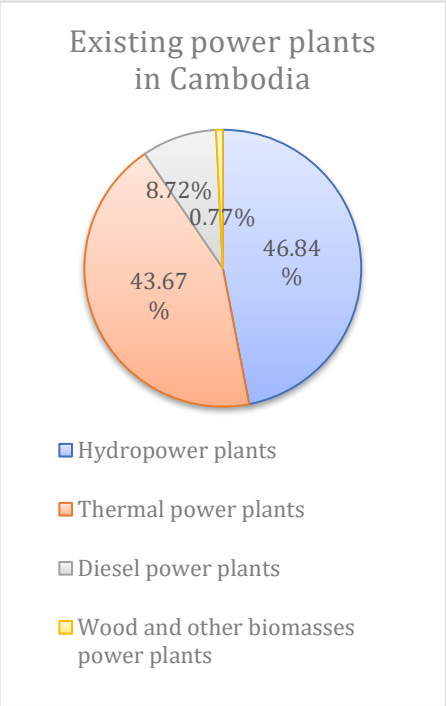
EXISTING POWER PLANTS IN CAMBODIA

There are four main types of power stations in Cambodia: hydropower, thermal power, diesel power, and power plants using wood and other biomasses. Currently, hydropower and thermal power account for over 90% of Cambodia's energy production (see chart this page).

Renewable energy plants, especially solar power farms, are in their early stages. Indeed, although currently representing less than 1% of national electricity production, we expect that given recent technological developments and the climatic conditions in Cambodia, we will see growth in investment in large solar power farms. Moreover, investment in renewable energy production sources is encouraged by the government's aim of providing electricity to 100% of all villages by 2020, and the EDC's objective of diversifying the nation's electricity sources.

In 2016, the government launched an open tender to develop the first significantly-sized solar farm in Cambodia, which was awarded to Sunseap Group Ltd., a Singapore-based company. The plant began operating in mid-2017, with a capacity of 10MW. The company has concluded a 20-year power purchase agreement with the government.

VDB Loi has been involved in this project as the local adviser of the Asian Development Bank, which provided a US$9.2 million loan to the company to develop the project.



MAIN HYDROPOWER PLANTS AND THERMAL POWER PLANTS OPERATING IN CAMBODIA					
PROJECT	**LOCATION**	**CAPACITY (MW)**	**COMPANY**	**COST (US$ MILLIONS)**	**YEAR OF OPERATION**
Hydropower plants					
Kirirom I	Kirirom Plateau, Koh Kong	12	CETIC International Hydropower Development Co., Ltd	24	1965
Kamchay	Kamchay Plateau, Kampot District	194	Sinohydro Kamchay Hydroelectric Project Co., Ltd	280	2011
Kirirom III	Kirirom Plateau, Koh Kong	18	CETIC International Hydropower Development Co., Ltd	47	2013
Khum Osaom	Pursat Province	120	C.H.D (Cambodia) Hydropower Co., Ltd	255	2013
Stung Tatay dams and hydropower infrastructure	Koh Kong Province	246	China National Heavy Machinery Corporation	540	2014
Lower Russei Chrum power plant	Koh Kong Province	338	China Huadian Corporation	496	2015
Lower Sesan Dam 2	Steung Treng Province	400	China's Hydrolancang International Energy Co., Ltd	781	2018
Thermal power plants					
Suvannaphum power plant	Kean Svay District	10	Suvannaphum Investment Co., Ltd	N/A	2008
Sihanoukville CIIDG power station	Stueng Hav Industrial Zone	270	Cambodia International Investment Development Group	362	2010
Cambodian Energy Limited I power plant	Sihanoukville Province	150	Cambodian Energy Limited	170	2014
Cambodian Energy Limited II power plant	Sihanoukville Province	150	Cambodian Energy Limited	600	2019

Source: Electricity Authority of Cambodia, Report on the Power Sector of the Kingdom of Cambodia, 2017.

OVERVIEW OF REGISTRATION REQUIREMENTS FOR A TYPICAL POWER PLANT PROJECT IN CAMBODIA

A typical power plant investment in Cambodia will require comprehensive pre-planning and multilayered cooperation with the government across at least six public ministries/departments in order to obtain the necessary approvals, licensing, and permits. A thorough understanding of these procedures is necessary to navigate the project through the public regulatory structure so that the project can be successfully approved and integrated into the power grid planning. A step-by-step process is outlined here, followed by a more detailed discussion.

- Regulatory procedures for power sector investments (generation, distribution, or transmission)
- Completion of a detailed technical feasibility study by a qualified party
- Authorization from the MME
- Creation of a legal entity for the power plant investment with the Ministry of Commerce ("**MOC**")
- Application for investment incentives from the Council for the Development of Cambodia ("**CDC**")
- Registration with the EAC
- Submission of an environmental impact assessment to the Ministry of Environment for approval
- Submission of the construction plan for a permit to the Ministry of Land Management, Urban Planning, and Construction
- Finalization of all power purchase agreements with all public and/or private clients

(1) Completion of a detailed technical feasibility study by a qualified party

Expected timeframe: Six months to one year, depending on the capacity level of the developer

Before undertaking the process of investment of an identified project, the candidate project must be analyzed for its real viability with regard to the overall environment that it is expected to be a part of. This analysis is typically executed in the form of pre-feasibility and feasibility studies. The feasibility study should comprise two main parts: (i) investigation of project characteristics and constraints; and (ii) evaluation of the project. The evaluation of the project should in turn include a thorough demonstration of the project's technical, economic, and financial viability.

The feasibility study is a necessary requirement and essential tool in introducing the project to the government of Cambodia and engaging the relevant ministries. The MME (on behalf of the government) will examine feasibility studies for the categories outlined in the following table.

CANDIDATE SITE PROPOSAL
▪ Growth and geographical distribution of electricity demand ▪ Topographical and geological conditions ▪ Availability of construction materials and accessibility of site ▪ Interaction with upstream and downstream plant/systems ▪ Supply system development plant and project integration into networks ▪ Capital and operation and maintenance costs ▪ Environmental and social impacts and assessment of any secondary impacts ▪ Power market study ▪ Field investigation measurements ▪ Hydrology and water management ▪ Engineering design ▪ Optimization of project characteristics with its integration to networks ▪ Economic evaluation ▪ Financial analysis and project financing ▪ Project implementation program

(2) Authorization from the MME

The MME is responsible for setting and administering the government's policies, strategies, and planning in the power and energy sector. It is tasked by the government to construct a national energy development agenda and set the technical, safety, and environmental standards for the development that will take place.

Equipped with a project feasibility study, the project developer can engage the MME directly through an official letter addressed to it. The letter, along with the feasibility study, should request the approval of the investment through explanation of the nature and general characteristics of the project. Sometimes, a memorandum of understanding is

Expected timeframe:
30 business days
Application form:
No standard form, official letter only.
Supplemental documentation:
▪ Memorandum of Understanding (optional) ▪ Legal proof of developer's identity ▪ Evidence of developer's technical/financial capacities

issued prior to submission of this letter and feasibility study, to explain the developer's intentions while allotting the ministry time to understand and research the various characteristics of the proposed project before an official request for approval is made.

The purpose of this approval by the MME is so that the government can incorporate the characteristics of the project into its national development plan and framework, thereby affecting future national energy policy. The MME will issue a return letter to the developer on behalf of the government. It will then delegate monitoring of the project to the alternative energy or energy development department for further support and cooperation.

(3) Creation of a legal entity for the power plant investment with the MOC

Expected timeframe:
20-30 business days
Application form:
Official forms available at the MOC
Supplemental documentation
▪ Legal proof of identification ▪ Photo ID of shareholders (4x6)

The MOC is the government ministry responsible for regulating, and promoting commerce and trade by, Cambodian companies operating domestically and internationally.

After obtaining approval from the MME, the developer must register a legal enterprise in Cambodia, in order to lawfully conduct business and execute contracts that will be made by the developer through the course of the project development, installation, and operation. Registration will enable the government to monitor the tax benefits and liabilities accrued over the duration of the business's operation.

(4) Application for investment incentives from the CDC

Expected timeframe:
60-90 days
Application form:
Official forms available at the CDC
Supplemental documentation:
▪ MOC registration ▪ Feasibility study ▪ Legal proof of identification ▪ Police records ▪ Photo ID of shareholders (4x6) ▪ Land agreement, land contract, map location of plant ▪ Bank certificates showing paid-in capital of at least 25% of registered capital ▪ Parent company form and certificate (if necessary) ▪ Power of attorney of legal representative

The CDC is responsible for gauging an industrial and infrastructure project's potential for investment incentives. It is tasked with facilitating public and private infrastructure development through inter-ministry coordination.

Registration with and approval from the CDC is necessary for the project to be granted special government investment incentives such as a tax on income deferral and exemption from customs duty on the importation of equipment.

(5) Registration with the EAC

The EAC is responsible for issuing all rules, regulations, and procedures to monitor, guide, and coordinate all operators in the power sector. The EAC will require power sector participants to follow the policy, guidelines and technical standards issued by the MME. The EAC is tasked with ensuring that all provisions of electrical supply services and the use of electricity are performed efficiently, qualitatively, and sustainably in a transparent manner. The EAC must, therefore, review and approve all tariffs, issue/revoke licenses, resolve disputes, collect license fees, and impose penalties.

The project developer must register with the EAC to receive an official license for operation in accordance with the desired project. There is no specific registration format. The project developer must engage the EAC directly and discuss the approval as each project has different capacities and requirements.

Expected timeframe:
30-45 business days
Application form:
No official forms
Supplemental documentation:
▪ MOC registration ▪ Feasibility study ▪ All power purchase agreements (can be provided later)

MEET OUR TEAM

Potim Yun
Legal Partner and Principal
PYT & Associates, a member of VDB Loi

Potim is the legal partner and principal of PYT & Associates, one of the first registered commercial arbitrators of NAC, and a member of the Bar Association of the Kingdom of Cambodia. Potim has worked on some of the largest investment projects in Cambodia, including a high-profile acquisition of a Thai telecom company, a US$90M bond issuance, and IPOs of Malaysian and Singaporean companies.

Alex Larkin
Senior Adviser
Cambodia

Alex is a US attorney who has been advising clients in Southeast Asia for over eight years, focusing on advising foreign investors on joint venture structuring, mergers & acquisitions, as well as commercial dispute resolution.
His knowledge of the local legal environment and strong expertise in foreign direct investment, market entries, and transactions brings unique value to VDB Loi's clients.

Alessandra Laureiro
Senior Associate
Cambodia

Alessandra uses her strong experience in energy law together with her in-depth knowledge of commercial law to assist VDB Loi's clients. She spent several years with top-tier firm Baker & McKenzie in emerging markets, working on energy, M&A, infrastructure, and privatization projects, and has experience in international project finance and transaction structuring. She has an LL.M. from the Centre of Energy and Mineral Law and Policy of the University of Dundee, U.K.

Wee Kiat Tay
Legal Associate
Cambodia

Wee Kiat (also known as Zed) is a legal associate with a diverse background in and knowledge of commercial and civil law. In his work with the firm, he has gained extensive practical knowledge in a variety of practice areas, including power projects, real estate, telecommunications, financing, and company establishment.

SELECTED ENERGY PROJECT EXPERIENCE

VDB Loi has worked on some of the first projects in the energy sphere in Cambodia, including the first ever oil refinery. Clients seek out our team for our strong understanding of the issues involved, as well as demonstrated success in navigating the regulatory environment in Cambodia.

First ever industrial-scale solar farm project

We acted as local counsel for the lender on the first industrial-scale solar power project in Cambodia to be connected to the national grid. We assisted throughout the course of this first-of-a-kind project, providing structuring, regulatory, and licensing advice, due diligence and advising on the financing and security structure.

Biomass projects

We acted on the development of two biomass power plant projects, including on licensing, conducting comprehensive due diligence, financial modeling, and advising on, drafting and negotiating concession documents and contractual agreements with the government and investors.

Energy supply agreements

We advised the operator of the largest special economic zone in Cambodia on the restructuring of energy supply agreements inside the zone, on tax compliance, tax structuring, and obtaining tax rulings from the tax authorities in Cambodia.

Cambodian subsidiary of a major Japanese oil company

We advised on a potential acquisition of an oil and gas block in Cambodia, including negotiating an oil and gas profit-sharing agreement with the Cambodian National Petroleum Authority, advising on the tax implications, and providing tax advisory on general Cambodian taxation issues.

Oil refinery project

Lead counsel on Cambodia's first, and only, oil refinery project, which includes a dedicated port, rail link and related infrastructure. Our service included advising on the legal structuring of the project; obtaining the tax rulings; managing the corporate compliance; advising on and drafting all transaction agreements, including the MOU with the government, EPC, lease agreements, fuel supply agreements; advising on land issues and all other aspects of the project.

Foreign-owned power infrastructure company

We are advising on its power transmission line project in Cambodia.

RECOGNITION OF VDB LOI

SERVICES WE OFFER IN OUR POWER PRACTICE

Our power practice delivers our combined outstanding legal and tax expertise in the region together with our deep understanding of the commercial, technical, and financing aspects of the power industry. We advise the full spectrum of energy-related clients: governments, corporates, sponsors, developers, lenders, and investors alike.

Project procurement, consent, and planning

Because of our close working relationship with government ministries and authorities, we are in an excellent position to assist clients with project procurement. Our clients often need us to stay in touch and to follow up progress with the authorities.

- Preliminary documentation
- Land due diligence
- Negotiation with off takers, regulators
- Assistance with preparing bids and proposals
- Environmental matters
- Government/ministry liaison

Project documentation

Our clients primarily seek our assistance with respect to the legal, regulatory, and contractual framework, which may include a number of documents, such as:

- Power purchase agreement
- Implementation agreement
- Concession agreement
- Land lease agreement
- Gas supply agreement or other feedstock agreement
- Joint venture agreement
- O&M agreement
- EPC agreement

Investment licensing

Our multi-disciplinary team includes foreign legal experts, local attorneys, and accountants, allowing us to assist clients with the CDC process. CDC registration and registration of qualified investment projects is a core competency of our firm. Clients choose us because of our partner engagement, the wide scope of our service (including preparing and correcting the financial portion of the proposal) and the sheer volume of proposals we have already managed and completed with the CDC.

Regulatory

Our regulatory team comprises lawyers and regulatory experts with compliance or technical backgrounds. We have extensive experience in the following areas:

- Power investment authorization
- Electricity generation licensing and registration with the EAC
- Environmental and social aspects
- Construction permitting
- Import licensing
- Foreign exchange
- Labor compliance
- Immigration matters

Taxation

We are uniquely placed to advise on the most tax-efficient onshore and offshore corporate structure for investments across the region. We advise sponsors on all tax issues, including the optimal debt-to-equity mix, the taxation of generating and selling electricity, and possible future divestment.

Financing

We assist development financial institutions, commercial banks, and corporate borrowers with a wide range of legal and regulatory matters:

- Financing documents
- Regulatory approvals and registrations
- Security agreements and their registration
- Development financing
- Debt and equity funding

Transactions

Our team has deep experience with transactions in the energy space. Our services comprise:

- Due diligence
- Transaction structuring and documentation
- Regulatory approvals