The transition process from military to civilian rule in Myanmar, being led by President U Thein Sein, has included widespread reforms, in an effort to modernize the legal and regulatory environments to reflect international norms. A number of new laws have been ratified, such as the Foreign Investment Law, while a new Electricity Law is expected later this year. Myanmar’s geostrategic position between nations with populations totalling nearly 2.5 billion people with an insatiable demand for energy, in combination with its own growing domestic electricity requirements, are enormous incentives to develop the energy infrastructure necessary to capitalize on those demands. This is most notable in the hydropower sector, where less than 10 per cent of Myanmar’s proven potential is currently being utilized.

In H&D Issue One, 2007, James Finch, the founding partner of DFDL’s Yangon office in 1995, wrote a paper on the regulatory framework for hydropower projects in Myanmar. This topic is revisited here, seven years on, and after many changes made during the recent transformation of Myanmar’s legal and political system. This article will also look at other key issues and changes in Myanmar legal and regulatory environment related to hydropower project development.

1. Industry overview

Across its four major rivers and numerous tributaries, Myanmar harbours an estimated 40 000 MW of exploitable hydropower potential. However, rolling brownouts plague consumers who do have access to electricity, and for nearly 75 per cent of the population electrical access is currently unobtainable and will remain so for the immediate future. In response to the growing domestic demand for electricity, the Government of Myanmar has announced plans to increase its electricity generating capacity five-fold within the next 15-20 years. Private sector participation and finance will be essential in this effort.

There are currently 20 hydropower projects operating in Myanmar with a capacity greater than 5 MW. 17 of which are owned by the Government, one that is locally owned, and two that are joint ventures between the Myanmar Government and Chinese state-owned enterprises. However, according to the Ministry of Electric Power, the number of hydro projects in the planning stages is significantly weighted towards joint ventures, standing at 44 to date. This, in combination with the new Foreign Investment Law, discussed in detail later in this article, is reflective of a shift in policy towards the easing of access for foreign companies to invest in a hydropower sector that is growing at an annual average rate of nearly 18 per cent.

Until recently, broad government-to-government agreements for the sale and purchase of a specific amount of energy over a given time period (Memoranda of Understanding or MoUs) were typically the method through which the Myanmar Government negotiated power trading deals with its neighbours. Myanmar signed an MoU with Thailand in 1997 for the trade of 1500 MW of electricity, which expired in 2010 and has not been renewed. According to the Ministry of Power, Energy, and Mineral Resources of Bangladesh, negotiations are currently underway for the purchase of 500 MW of hydropower by Bangladesh from Myanmar by 2017. However, apart from this pending agreement, no other broad power-trading MoUs are reported to be under consideration.

The Myanmar Government instead appears to be negotiating project-specific MoUs with its neighbours, to help encourage regional investment into its energy infrastructure. India’s National Hydroelectric Power Corporation (NHPC) signed an MoU with the Myanmar Government in 2004 for the development of the 1200 MW Tamanthi dam on the Chindwin river, with an estimated 80 per cent of the power going to India. A new agreement was signed in 2008 between NHPC and the Myanmar Hydroelectric Power Department to form a joint venture with NHPC for the development of the Tamanthi and Shwesayay dams.

Thailand is reported to be in negotiation for up to 10 000 MW of hydropower from Myanmar over an unspecified time period. This MoU is linked directly to the Salween dam projects, five proposed dams along the Salween river, which would have a combined capacity of more than 18 000 MW. Specifically, Thailand will receive most of the power from the 7110 MW TaSang dam, which is planned along its border with Myanmar. Thailand, through its generating authority EGAT, is also to receive the majority of power generated from the 1200 MW Hatgyi dam, currently under construction, as well as the Weigyi dam, with an estimated total capacity of up to 5600 MW. Both are to be located in northeastern Karen State.

EGAT has announced that power from the Hatgyi dam will be supplying the Thai national grid by 2019.

Although Thailand has significant investments, China is by far the largest financier of hydropower in Myanmar, and has a number of MoUs signed for various power trading arrangements. Chinese state-owned
enterprises are publically involved in nearly every large-scale hydropower project either at the advanced planning stage or under construction in Myanmar. Together these projects represent 31 451 MW of potential generating capacity, a significant percentage of which will be exported to China. The largest of these project-specific MoUs was signed in 2007 between the Government of Myanmar and the China Power Investment Corporation for the implementation of seven large dams along the Irrawaddy, Mali, and N‘Mai rivers in Kachin State totalling more than 17 000 MW. However, the implementation of these projects has met with resistance. The largest of the proposed projects in this cluster, the 6000 MW Myitsone dam, has been suspended since 2011 by order of the Myanmar Government as a result of mounting pressure from local populations and environmental impact concerns.

One potential issue that may arise for the Myanmar Government as it continues to sign project-specific MoUs with neighbouring countries is that its huge domestic electricity deficit may begin to make it politically difficult to support the use of Myanmar’s natural resources to generate electricity for export abroad. As the standard of living continues to rise for Myanmar citizens, the Government will soon be required to allocate a significant amount of funds towards internal electricity transmission infrastructure. On one hand these funds can be generated through the export of electricity; on the other, that electricity is also needed locally.

2. Relevant ministries
Before 1997, the Ministry of Energy was responsible for power generation and the distribution of electricity throughout the country. In late 1997, the Ministry of Electric Power (MOEP) was established to improve administrative control over the generation and distribution of electricity. In 2006, MOEP was reorganized into MOEP 1 and 2. According to the Government, this was with a view to achieving economic nation building and fulfilling development tasks more effectively in connection with the use of electricity. Regarding hydropower, MOEP 1 consisted of: a policy-making body, the Department of Hydropower, to implement the projects; the Hydropower Implementation Department; and, an investment vehicle; the Hydroelectric Power Enterprise.

MOEP 2 dealt with the electricity sector as a whole, and consisted of the Department of Electric Power, the Myanmar Electric Power Enterprise, and the Electric Power Distribution Enterprise. The Board of Yangon City Electric Power Supply was also under the jurisdiction of MOEP 2, and was formed with the ratification of a law in 2005 bearing its name, for the purpose of providing electricity to the national capital at the time, Yangon (Rangoon). Specifically, this Board has the responsibility to carry out exploration works, and the production, transmission, and distribution of electric power. It may also grant permission in localities, where it cannot fully supply electric power itself, for private electric powerplant operators to supply electricity and charge the public, with the approval of MOEP. MOEP was reintegrated back into a single government ministry in September 2012.

3. Potential purchasers of Myanmar’s electricity
Hydropower development on a public-private partnership (PPP) basis depends fundamentally on two key factors: the existence of water resources that can be developed on a profitable basis; and, a willing, long-term, and credit-worthy purchaser of the plant’s electrical capacity. The state-owned Myanmar Electric Power Enterprise (MEPE) is the designated purchaser under power purchase agreements (PPAs). However, MEPE is perceived by potential financiers as lacking the track record and credit-worthiness of other power purchasers in the region, such as the Electrical Generating Authority of Thailand (EGAT). This may be a fundamental hindrance to the rapid development of hydropower projects in Myanmar.

Lao PDR is an example of how the resolution of this issue can quickly unlock hydropower potential.
Electricité du Laos (EdL), is the Lao equivalent of EGAT and MEPE. It has the same issues related to
credit-worthiness as MEPE. To unlock hydropower
development, in the early 1990s the Lao government
authorized the sale of electricity to Thailand (EGAT).
Approaching financiers with pre-agreed EGAT PPAs
in their pockets, developers were able to convince
lenders to offer large sums to finance Lao hydropower
projects. Banks were also more confident and com-
fortable in taking on other types of local project risks
with a reliable foreign off-taker on hand. Having suc-
cessfully financed a few such export-oriented projects,
banks are now becoming more comfortable with lend-
ing to domestic supply agreements as well.
To unlock financing for its own hydropower projects,
Myanmar could pursue the same policy as Laos by ini-
tially focusing development on projects that sell elec-
tricity to neighbouring countries. However, as previ-
ously mentioned, one key difference between
Myanmar and Laos is that Myanmar has a strong unmet
domestic demand for electricity. Selling natural
resources (water) in the form of electricity to Thailand
while the citizens of Myanmar lack an adequate supply
of energy for their own use may prove too politically
unpopular.
Another option for Myanmar would be the one pur-
sued by the Malaysian state of Sarawak under the
SCORE project (Sarawak Corridor of Renewable
Energy). While the complexities of SCORE are
beyond the scope of this paper, it is noteworthy that the
basic principal on which SCORE was formed could be
a feasible option for Myanmar. The SCORE develop-
ment strategy is to bring electricity-intensive private
sector industries into Sarawak, and require such indus-
tries to enter into long-term PPAs directly with the
state utility. Sarawak has since become attractive to
industries because of the lowered cost of hydroelec-
tricity, proving this project successful. In addition, the
PPAs entered into by such industries paved the way for
the financing and development of the hydropower
projects themselves. Thus, they created a domestic
market for their hydropower capacity through incen-
tivized government policy.
Given the global interest in Myanmar, a combined
Sarawak/Laos (domestic private buyer/foreign utility
buyer) model may be a realistic way of encouraging
lenders to become comfortable with Myanmar’s politi-
cal and commercial risk. Of course, one cannot dis-
count the important role that multilateral institutions
such as the Asian Development Bank and the
International Finance Corporation will play in the
development of Myanmar’s power sector, as well as
sovereign guarantees from the Government of
Myanmar, but there will also be a place for entities
such as EGAT and private industry.
4. Awarding contracts
Unlike the oil and gas sector, there is no standardized
procedure for open tender or direct hydropower con-
tract negotiations with the Government, and steps vary
on a case-by-case basis. However, based on the
authors’ experience, research, and discussions with
relevant officials, the awarding of contracts for
hydropower projects in Myanmar generally follows
the following steps:
1. MOEP or the Department of Electric Power (DEP)
will publish an invitation for bids to implement a
hydropower project in state-owned newspapers.
2. The bidder will have the following documents
endorsed for authenticity by the Myanmar
Embassy of country of incorporation:
• a copy of the company’s Certificate of Incorporation;
• a copy of the by-laws or the memorandum and
articles of association;
• a copy of the most recent annual report;
• a copy of a financial statement or financial report;
• a profile of the company and its past experience;
• a profile of the project manager, engineering man-
ager and site manager (who would be in charge of
the power project) including academic qualifica-
tions and past experiences.
3. The bidder will prepare an Expression of Interest.
4. Submit the Letter of Expression of Interest and the
documents mentioned above to MOEP or DEP.
5. Complete the initial technical and legal due diligence.
6. Meeting with the relevant Government entities to
discuss proposal for development of power plant.
7. Buy the tender form and pay the deposit to MOEP
or DEP
8. Conduct feasibility study.
9. Submit the proposal with the tender form.
10. MOEP will assess the proposals, and will select
one of the bidders.
5. Environmental considerations
Any hydropower project by its very nature alters the
surrounding area in which it is built. Recognizing that
Myanmar must balance infrastructure development
with environmental protection, the Government has
mandated that once a power project has been awarded
through the direct negotiation or open tender processes,
the project investor should submit a complete project
proposal to the Department of Environmental
Conservation (DEC) for consideration. The DEC will
then inform the project investor if a preliminary envi-
ronmental impact assessment (PEIA) or a full environ-
mental impact assessment (EIA) is required. With
regard to hydropower generation projects, any project
of less than 15 MW or with a water storage capacity of
less than 200 × 10^6m^3, or with a reservoir area of less
than 1500 ha only requires a PEIA; any project with
specifications greater than any those listed requires a
full EIA. However, the DEC may take other consider-
ations into account when deciding on the environmen-
tal assessment requirements. Project investors should
conduct either investigation by consulting with a third
party organization that is qualified under Myanmar
law. Once the assessment has been conducted and
submitted to the DEC it will, following approval, pub-
lish the announcement in a state-owned newspaper.
6. Basic legal and commercial structure
There are three types of legal structures for hydro pro-
jects in Myanmar. The first and most prevalent to date
is the state-owned model; specifically, projects imple-
mented and owned by MOEP. The second are projects
to be developed on a build operate transfer (BOT)
basis that are owned and implemented by Myanmar
companies. The third category comprises projects to
be developed on a BOT basis owned partially by for-
eigners, known as JV/BOT projects. The MEO current-
ly plans to develop 67 hydro projects over the next
20 years, as follows: 11 state-owned, totalling 2132
MW; 4 domestic BOTs, totalling 377 MW; and, 43 for-
on the Myitnge river, Yeywa hydro station Myanmar’s largest hydro plant in operation to date.

The country’s largest hydro plant in operation to date.

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Foreign participation in the generation of electricity is possible only as a joint venture with a government entity. Foreign companies are also restricted to 20% ownership in electrical generation facilities that have a capacity of less than 10 MW. The minimum capital requirement under the FIL for an investment into industry by a foreign company is US$500,000; although in practice the Government tends to set the requirement at levels higher than what is stipulated under the FIL. The foreign capital may be in kind or in cash. Foreign currency and in-kind contributions such as machinery, equipment, and raw materials brought in as foreign capital will be evaluated and registered in kyat at the official rate. Regarding the land on which the hydropower project will be built, ownership is restricted to Myanmar nationals, but the FIL allows investors to enter into a lease for up to 50 years, with two additional extensions of 10 years each for a total of 70 years.

The regulatory authority that oversees foreign investment is the Myanmar Investment Commission (MIC), which is established and empowered by the FIL. The MIC has broad discretionary powers to implement the objectives of the FIL, including granting project approvals and dictating the terms and conditions under which such projects can be carried out. The MIC has significant discretionary authority to grant exemptions to any restrictions.

The implementing rules include a series of official lists that set out the types of businesses that are permitted, conditionally permitted, and restricted. Businesses that build hydroelectric and charcoal-fuelled power stations and sell the electricity to the State must first be approved by the Cabinet before the MIC will issue a permit to operate. A licence will then be issued by a regulatory authority, which at present is the Ministry of Industry, under the Electricity Law of 1984. With respect to these specific types of projects, permits and licences are only granted to foreign investors who establish a joint venture with the State. In addition, approval is required for hydropower and other large-scale heavy electric power production facilities from the Ministry of Environment Conservation and Forestry. This is dependent on impact minimization, as confirmed by official environmental and social impact assessments.

In resolving disputes between parties, under Rule 170 of the Foreign Investment Rules, it is stated that in the case that a dispute mechanism is not mentioned in an agreement, disputes must be settled using the laws of Myanmar, namely the Arbitration Act of 1944 and the Protocol and Conventions Act of 1939. Although these laws date back to pre-independence, on 15 July 2013, Myanmar became the 149th contracting state to the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards 1958. Once domestic legislation adopting the Convention comes into effect, courts in Myanmar will be obliged to recognize foreign arbitration clauses and to enforce arbitral awards made in other member states.

The FIL was passed on 2 November 2012, replacing the previous law dating back to 1988. The Ministry of National Planning and Economic Development issued the implementing rules, Notification 11/2013, on 31 January 2013. The FIL focuses on which industries and international companies are permitted to enter particular markets and in what form.

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Foreign Exchange Management Law

Passed in 2012, the Foreign Exchange Management Law (FXML) replaces the 1947 Foreign Exchange Regulations Act, in an effort to introduce liberalization components into the foreign exchange regime. The FXML replaces the strict approval requirement by the Central Bank of Myanmar for all foreign currency transactions, by breaking foreign payments into capital account transactions and current account transactions, with only capital account transactions requiring Central Bank approval. However, the implementing regulations for the FXML have not yet been published, so there is a lack of clarity at present regarding the operational procedures for a new foreign exchange system.

Transferring funds out of Myanmar remains problematic, except in cases of profits and liquidation of funds under the FIL, which is a reason why the FIL is widely used.
7.3 Electricity Law

The Myanmar Government, in conjunction with the Asian Development Bank, is currently in an advanced drafting stage for a new electricity law that will replace the current law of 1984. It is widely expected that the new law will be passed during the next Parliamentary session set to begin in the middle of this year. Based on the stated objectives of the most current draft, the new law is significantly more focused on creating an attractive environment for foreign investment, while emphasizing transparency and the adherence to international norms and standards. Also, it provides for the establishment of training schools to promote modern technology and cultivate local technicians and experts, with a view to creating a knowledge base within Myanmar to further the Government’s goal of universal electrification by 2030.

One of the major changes set to take place with regard to the governing structure of the electricity sector is the establishment of the Electricity Regulatory Commission. It is the stated duty of the Commission to create an environment conducive to investment in the power sector, and for compliance with electric power rules. Although the details as to its operational processes and relationship to the Ministries will not be clarified until the release of the implementing regulations, this is a significant step forward. The new electricity law will, at a minimum, create a semi-independent regulatory body to assist in the management of Myanmar’s electricity sector, by increasing its effectiveness and credibility for international investors.

The draft Electricity Law also decentralizes some authority over the electricity sector by empowering regional and state governments to grant permission, regulate, or withdraw permission for medium- and small-scale power generation and distribution projects (no greater than 50 MW) which are not connected to the national grid. The necessary infrastructure to provide grid access to the entire country is still 15-20 years away; therefore, an opportunity exists nationwide for small- and medium-scale off-grid hydro projects to electrify rural areas. This represents major progress since the 1984 Electricity Law, which effectively limited foreign investors to projects of less than 500 kW unless express permission had been given by the Cabinet.

Although there are still revisions to be undertaken before the final version of the new electricity law is passed in Parliament, at this stage it appears that the Government is taking a number of progressive steps to provide a solid and transparent foundation for its electricity sector, to facilitate widespread domestic and foreign investment.

8. Conclusions

Myanmar’s potential for developing its hydropower sector over next 20 years is undeniable. Its large and growing domestic market and power-hungry neighbours will give power producers in Myanmar a solid market for decades to come. However, before the first large public-private partnership hydropower projects can get off the ground, the Government of Myanmar will need to clarify its policies in a number of key areas, and create credit-worthy buyers of the generated electricity, while ensuring that royalties, regulatory infrastructure, financial incentives, free shares and free power are harmonized to be attractive to both domestic and foreign investors. This process is already well under way, and substantial development in the immediate term is widely expected.