

VDB | *Loi*



# MYANMAR LNG UPDATE

*20 September 2017*

# MYANMAR PRACTICE OVERVIEW

We are known for providing the ultimate in ground connectivity to our clients. We believe that specialization, along with tenacity, is necessary to achieve this. Therefore, in 2016, we ramped up our headcount and the number of our senior advisors, and we converted to a system of exclusively dedicated practice teams in Myanmar.

We have created 4 general practice teams (Corporate M&A, Banking and Finance, Licensing and Disputes) and 4 specialized teams (Energy, Telecommunications, Infrastructure, Real Estate & Construction and Taxation).

Each practice team comprises a team leader, who assists a partner to manage the team, and minimum 4 to maximum 10 advisers who are exclusively dedicated to only one team. All team members are, just like partners Edwin Vanderbruggen and Jean Loi, residents of Myanmar.

## PARTNERS IN MYANMAR

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## 1. THE MYANMAR GOVERNMENT'S INTEREST IN LNG

On 9 September 2016, the Myanmar Ministry of Electricity and Energy (MOEE), through the Myanmar Oil and Gas Enterprise, (MOGE), published a request for [Expressions of Interest](#) for the "bulk supply and or terminal of LNG in Myanmar". ("the Tender"). The MOEE also formed a "LNG Business Tender Committee" which includes representatives from the state-owned electricity generation enterprise EPGE.

By the deadline, which passed last year on 28 October 2016, the MOEE received approximately one hundred EOIs from traders, upstream companies, shipping companies, infrastructure providers and combinations of the above.

The World Bank has conducted preliminary site studies for the placement of an FSRU for the import and regasification of LNG in Myanmar. It organized a workshop in Nay Pyi Taw on 10 November 2016 (the Workshop) to report on the outcome of a pre-feasibility study done by MJM Energy for the World Bank. The study focused on options for LNG purchase by Myanmar and on the prima facie merits of three designated possible LNG terminal sites. At public forums, the IFC also confirmed to be in talks with the Government to provide technical assistance in connection with the planned tender.



Government Guarantees for PPP Projects in Myanmar  
March 31, 2017, Nay Pyi Taw.

Since then, there has been no more official news on the Tender itself, but as production from the Yetagon, Zawtika and soon Yadana gasfields declines, the prospects of a large scale LNG project in Myanmar have only increased. The Government is discussing potential LNG projects with several parties directly, on a one-to-one basis, spurred by a glaring lack of electricity supply as well as the prospects of using pipeline infrastructure to transit gas to neighbouring countries.

From the Government's perspective, importing LNG is about the need for power in a country with a less than 30% electrification rate, and with an at least

temporarily declining domestic gas production. The Government is running out of generation alternatives, having all but abandoned coal fired projects. Although no official announcement to that effect has been made, concessions for coal plants have not been converted to power purchase agreements (PPA). Furthermore, most planned hydro projects are not moving forward quickly, hampered by (some) social opposition. In any event, hydro generation is severely curtailed in the dry season. Two large solar projects were signed under the previous Government, but none since.



## 2. HOW MUCH LNG DOES MYANMAR NEED?

Officially, at this stage only a pre-feasibility study has been done. So, we do not know for sure what LNG volume we are talking about for the Tender, and the World Bank is not yet taking any position on actual demand. But the capacity of the FSRU which was featured in the study is 500 MMSCFD, which is nearly 3.5 MTPA. That is larger than we expected and larger than any of the existing LNG receiving terminals in Indonesia right now, to name a place (Nusantara Regas Satu has a 3 MTPA capacity, Lampung FSRU has 1.8 MTPA and ArunRegas has 1.5 MTPA capacity). One of the key uncertainties, the study group explained, is that no one knows for sure yet how much gas Myanmar will really need to generate power in the future. That is to say, it is clear that (i) the demand for electricity far exceeds current supply, and will grow at least 15% per year and (ii) the production of domestic gas in Yadana and Zawtika is already declining. But many of the other elements we need to make an informed decision are unknowns, and some will stay that way for a while. For starters, when will recent discoveries in A6 and



A7 translate into more domestic gas becoming available, perhaps eliminating the need for imported LNG? It is hard to predict when this will happen, and what the volumes will be. One factor we could actually narrow down is how much of the electricity supply gap needs to be taken up by gas-fired power plants. That is a matter of Government policy, and it depends on how many hydro's and coal will get through.

The existing energy plans (including the ones provided by E.GEN and METI)

assume that coal and hydro will provide the main source of generation. It is now increasingly clear that those plans are no longer current. Large scale hydropower projects may present social challenges the likes of which are new to Myanmar. Plus, it seems coal projects are all but dead in the water, until further notice. So how much gas is needed to fill the gap left by (possible delays in) hydro and coal?

To illustrate the uncertainties, consultants at the workshop pointed

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Jean is one of the region's most experienced tax and regulatory specialists with more than 12 years of experience in Indochina, Myanmar and Singapore.

She has advised on a large number of project transactions and tax disputes in the specialties of structuring, power plant projects and oil & gas.

As the managing partner of VDB Loi, Jean has extensive experience with projects related to the market entries of companies in the infrastructure, telecommunications and financial services industries in the region, as well as with supply chains. She lives in Yangon.



**Edwin Vanderbruggen**  
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Edwin is the senior partner of VDB Loi and a leading foreign legal advisor living in Myanmar since 2012. A frequent advisor to the Government on transactions and privatizations in energy, transportation and telecom, he is widely recognized for his "vast knowledge" (Legal 500) and his ability "to get difficult things through the bureaucracy" (Chambers, 2016). He advised international financial institutions on their largest Myanmar transactions so far, oil and gas supermajors, a greenfield multi-billion US\$ telecom project and the Japanese Government on the Thilawa SEZ. He assisted two newly licensed foreign banks setup in Myanmar, acted for the sponsor of an 800MUS\$ urban infrastructure PPP project and worked on 5 out of 7 power deals inked in 2016.



out that the competing energy plans' findings vary from 1.8 MTPA to 8.4 MTPA when it comes to need for LNG import. As was mentioned above, the World Bank did not take a view on actual LNG demand. Anyway, if this number ends up in the RFP, this would be the largest energy project in Myanmar, by far. At this kind of capacity, including the storage and the needed pipelines (more on that see below), excluding any power infrastructure, the World Bank consultants calculated about up to a billion US\$ in capex and discounted expenditure, much of which is pipeline costs.

### 3. NO LONG TERM LNG CONTRACTS TO PURCHASE LNG?

The invitation to submit an EOI did not betray whether the Project would be primarily about LNG supply or about infrastructure. It called for companies with experience in both. At the Workshop this moved quite a bit into the infrastructure direction. It was revealed that if it is up to the consultants, there is no need for Myanmar to procure LNG under long term contracts. Increasing volumes of LNG are available on the spot market. Myanmar could purchase LNG on the spot market or under 1 or 2 year contracts. In due course, Myanmar could develop a portfolio of purchase contracts at various tenures in stages, like Pakistan, the experts argued. Separately from the supply, the Government (or the natural gas off-takers) would conclude a tolling agreement with the terminal for the regasification, and the Government could build, or have built, the necessary pipelines. Now, there is no way of knowing whether the actual Tender will drop medium-to-long term LNG supply

in favor of spot. With gas taking over a large portion of the planned electricity supply, the MOEE might choose for energy security.

### 4. POSSIBLE SITES FOR THE FSRU

The Government gave the consultants 3 potential areas to look at and compare. Each area had two or more potential sites. The Government gave the consultants 3 potential areas to look at and compare. Each area had two or more potential sites. 1. Three sites in Rakhine 2. Two sites in Ayawaddy 3. Three sites in Mon state After comparing metocean, navigation, weather, pipelines, local infrastructure and environmental and social aspects, the consultants came to the preliminary finding that the sites Rakhine and Mon State would both be suitable, and the sites in Ayawaddy somewhat less so. However, for the site in Rakhine the pipeline would be very long, making that site almost certainly more expensive from a capex perspective than the sites in Mon State. So, that would leave one of the sites in

Mon State as the better choice from the three for now. However, the World Bank made it clear that alternative sites might be possible. We think it is likely bidders can propose their own site as well.

### 5. INTEGRATED WITH A POWER PROJECT?

Of course, Government's interest is all about gas-to-power. But, in the site analysis done by the World Bank for the Government's planned tender, no mention was made of the need or the possibility to add an IPP near the terminal. Nevertheless, there are some indications that in the context of this Project, additional concessions for CCGTs will have to be granted. First of all, the MOEE would have to compensate for all but eliminating coal fired plants from the energy master plans, if that is indeed what is happening. Secondly, the volume of LNG to be imported which the MOEE and the World Bank used in the pre-feasibility, although just a working assumption, is aimed at approximately 2,500MW. Assuming that there will still be a significant portion of domestic

*"...the partners know more about the legal environment than anyone else."*

*- Legal 500*

gas available as well in the future, this is more than currently in the works around Yangon. But whether an IPP would be included in the tender itself, that is a whole other question. At this stage, it seems unlikely to us. Based on what we know of the internal workings of the MOEE, it would be more likely that new IPPs will be tendered by the DEPP, or that the DEPP will simply take up a newly negotiated proposal from an IPP.

Not surprisingly, in the direct negotiations between the Government and several separate investors, the gas-to-power angle has featured prominently. The Government evaluates the commercial terms of the proposed projects directly in terms of price per kw for the public.

## 6. FOREIGN OWNERSHIP RESTRICTIONS

Myanmar has a number of foreign ownership restrictions which apply per type of economic activity. The restrictions may impact the project differently depending on the structure. For example, if a separate Myanmar legal entity imports and resells gas, and another Myanmar company does the regasification, the foreign ownership restrictions may be different from the situation where all of these activities are done by one and the same Myanmar legal entity.

### *Import, regasification, storage, pipeline of petroleum products*

The Government has per 1 April 2017 abolished a number of foreign



ownership restrictions in the petroleum products space. Previously, import, storage, processing of all petroleum products by foreigners required a joint venture with the Government. That is no longer the case. Companies carrying out these activities may be 100% foreign owned at this time.

It is probably theoretically possible that a fuel terminal would be 100% foreign owned but we consider this unlikely in practice. Only Myanmar nationally owned companies hold the necessary land rights to port terminals at this time, and they would often seek to become joint venture partners of fuel terminal projects.

### *Generation of electricity*

Companies generating electricity from gas may be 100% foreign owned in Myanmar. Nevertheless, some gas fired power projects have offered a small percentage of equity to the Government.

### *Will the Government want an equity stake?*

The MOEE, particularly the energy side, has traditionally received an equity stake in its projects with foreign investors. The previous Union Minister even supported this



*“VDB Loi is widely considered as a powerhouse in Myanmar’s legal market.”*

*- Asialaw*

practice by introducing regulations under the Foreign Investment Law requiring foreign investors in certain energy sectors to conclude joint ventures with the MOEE. One of the more recent such joint ventures is National Energy Puma Aviation, a joint venture between one of the SOEs of the MOEE and Puma.

As was mentioned, in 2017, by means of Notification 15/2017, these foreign ownership restrictions have been abolished, and are replaced with a general requirement of obtaining MOEE approval for the investment project in the petroleum sector. But, no new comprehensive regulation was issued explaining the new policy in any detail. So, what exactly is permitted for foreign investors in the petroleum products sector is not spelled out in writing.

The Managing Director (MD) of the MOGE, U Myo Myint Oo, brought the issue of equity up when he joined the panel at the World Bank workshop, raising speculation that there might be some expectations or plans in this regard. The MD also touched upon

possibly seeking financing to construct the pipeline as well as to fund the equity stake into the Project company.

## 7. APPROVAL PROCESS

There is no legislation or regulation organizing the approval process laid out for approving LNG/gas-to-power projects, or even electricity projects in general. The MOGE has negotiated and concluded many Gas Sale Agreements, usually domestic ones but also a few international documents. With respect to electricity the practice is well entrenched for the MOEE to use a six-step process for power projects:

1. **Concluding an MOU** with the Department of Electric Power Planning (DEPP): This non-binding MOU merely permits the sponsor to carry out a feasibility study, and it only commits the Government to receive and evaluate the same.
2. The preparation and submission of a **feasibility study** performed by the sponsor.

3. Negotiating and executing a **Memorandum of Agreement (MOA)**: Once the feasibility study findings have been approved, the MOEE will negotiate and execute the MOA (usually through the DEPP). Cabinet approval, preceded by Attorney General Office review, is normally obtained by the DEPP before the MOA is executed. More about the MOA below.

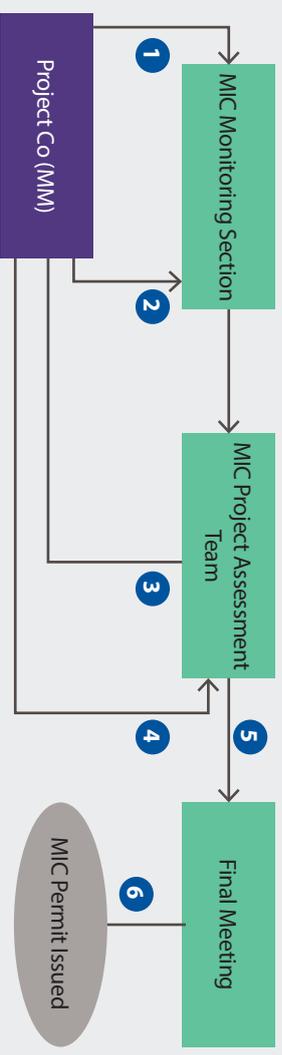
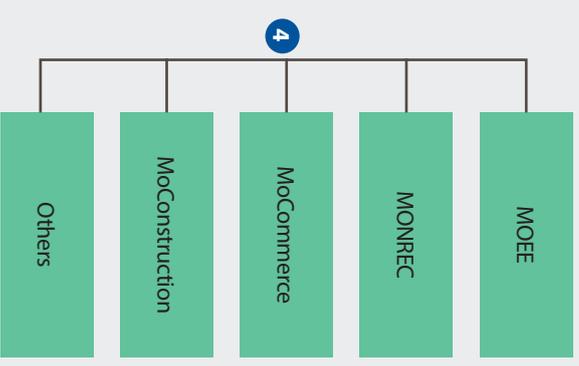
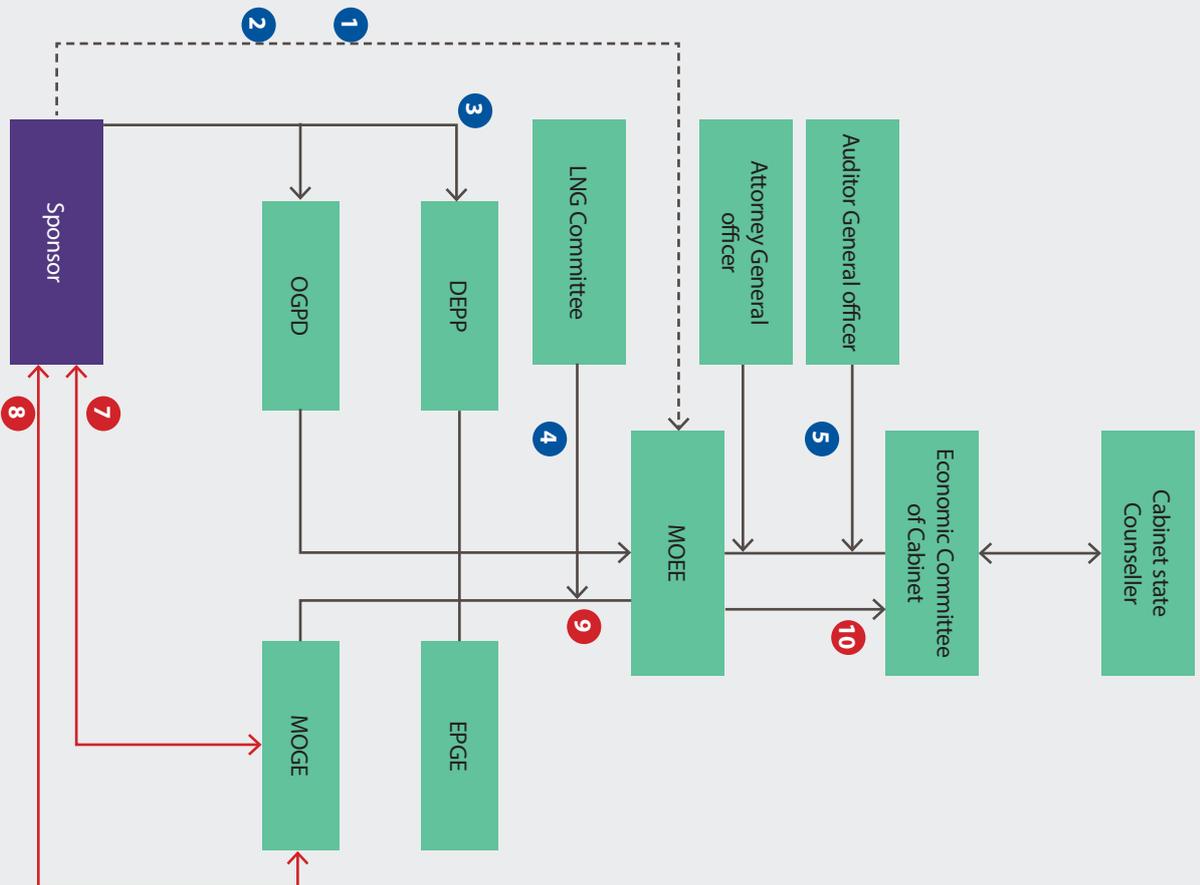
4. Agreement on the **other project documents such as the Gas Supply Agreement or the Power Purchase Agreement (PPA)** with the Electric Power Generation Enterprise (EPGE) (a state-owned enterprise), and Land Lease Agreement (LLA) which is normally agreed with the Government counterpart which has the management of the land (often, the relevant state or region). Again, the approval of the Cabinet, preceded by Attorney General Office review, is normally obtained before the PPA is executed.

5. **MIC Permit**: Once the project documents are in agreed state, the sponsor can proceed with his investment license application (MIC Permit).

6. The **project documents** are executed once the sponsor has secured the investment license (MIC Permit).



## PROJECT PROCUREMENT PROCESS



## 8. INVESTMENT LICENSING (THE MIC PERMIT)

As provided in the Myanmar Investment Law, a new foreign investment in the energy sector may require an MIC Permit if certain thresholds are exceeded (for example, 20MUS\$ new investment in energy infrastructure, or if an Environmental Impact Assessment must be prepared).

Accordingly, depending on your plans with the Target and the implementation structure, an application to the MIC may be unavoidable.

There are two possible procedures at the MIC: the MIC Permit and the MIC Endorsement (the latter is shorter, for smaller investments). The MIC itself will determine which one you need to follow. It depends on the structure and activity of the investing entity. We are certain the Project would have to follow the MIC Permit process, but it cannot be excluded that if you would separate certain activities (say, services) in special purpose vehicles, the MIC Endorsement would apply to those activities.

## 9. PERMITTING

The operating licenses for the Project are issued by the MOEE, with a few activities being licensed by other ministries. The Petroleum Products Law, amended in 2017 (PPL), is the main law governing the activities comprised in the Project. Other, more general laws obviously also impact certain aspects such as laws on land use, shipping and importation.

	Petroleum Law 1934 & Notification 100/2013	Petroleum Products Law 2017	What Changes?
Import	President's office / MOC	MOC (issues input licenses)	Only MOC has authority
Terminal / Jetty	MOEE but some licenses require MONREC & MOTC	MOTC	MOTC has clear authority
Storage	Ministry of Mining	MONREC (licenses the activity)	More detail in the licence content
Refine, process, mix	President's office	MOEE	Only MOEE has authority
Distribute & sale	President's office / MOEE	MOEE	Only MOEE has authority
Transport	"Relevant departments"	MOTC & MONREC	Detail and split authority now includes MONREC
Pipeline	No mention	MOEE	Establishes legal authority
Transit	No mention	MOEE	Establishes legal authority
Export	No mention	MOC	Establishes legal authority
Dual or combined activities	No mention	MOEE	New license combination



## 10. PIPELINE VERSUS TRANSMISSION LINE IN MYANMAR

One of the most important factors in the capex of any LNG project in Myanmar is, potentially, the new pipeline which will be needed. Depending on the location of the FSRU, gas would have to be transported to Yangon, which has only shallow waterways and which consumes more than 60% of the electricity in Myanmar. That is the starting point of the World Bank's site analysis. For a certain site access to the Shwe pipeline could be negotiated, but even then a new 30" pipeline would have to be installed on existing routes to Yangon as the existing one is too small. The Mon State site offers the possibility of deploying a subsea cable, which may be easier in terms of obtaining rights of way, and shorter, but it is also relatively more expensive.

	Site	Length of pipeline in km
1	Rakhine	Between 475 to 557
2	Ayawaddy	235
3a	Mon State (over land)	410
3b	Mon State (subsea)	225

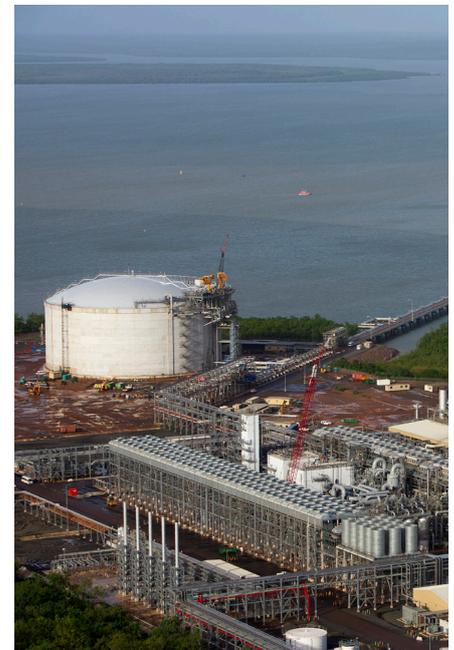
The alternative, of course, is to place the power facility near the FSRU and transport electricity through T-lines rather than gas. This was somehow not considered in the World Bank study yet, but it is a part of the solutions proposed by individual investors in direct negotiations.

Securing land rights for both pipelines and T-lines may be challenging in Myanmar. Although nearly all the land in Myanmar is state-owned, the MOEE does not manage much of it. In most cases, land rights for sites must be secured from other state actors such as states and regions (Myanmar is a Union of 14 states and regions) or other national ministries. This is very a long process.

Furthermore, right of way for pipelines and transmission has become increasingly difficult in recent years amid social opposition ("not in my backyard") and environmental concerns.

## 11. SOVEREIGN GUARANTEES IN MYANMAR

As VDB Loi pointed out on the panel at the Workshop, government guarantees, more than likely needed, are largely untested and may determine the schedule: Actual Government guarantees (to be distinguished from contractual commitments) in Myanmar are governed by the Public Debt Management Law 2016 ("PDML"). Such guarantees are largely untested in practice as the budget is now on a strictly cash basis. Under the PDML, which confirmed a practice already in place with the annual National Budget Laws, "the Ministry of Finance can provide guarantees or something resembling a guarantee for debt to any person, association of persons or project in accordance



with such terms and conditions as may be approved by the Government and the [National Assembly]" (s. 30 PDML). "Government debt" means "all the debt obligations arising from the borrowing or the promise of payment by Central Bodies, Union Ministries and organizations in their charge, the Government or government-guaranteed debt..." (s. 2 PDML). The budget cycle, with the financial year ending 31 March of each year, will have an impact on the schedule of the Project. So, the Ministry of Finance (now the Ministry of National Planning and Finance) can indeed provide guarantees but within yet to be drafted "terms and conditions" which need to be approved by the National Assembly. VDB Loi is assisting the MOPF with the drafting of a regulation implementing the PDML in connection with government guarantees for PPP projects.



## 12. ENVIRONMENTAL AND SOCIAL

An Environmental Impact Assessment ("EIA") is almost always the first step of any LNG project regardless of the project's size. An EIA is always required under Notification 616/2015 for the following:

- offshore/onshore gas production activities;
- offshore/onshore gas transportation activities;
- pipelines;
- pump stations;
- compressor stations; and
- storage facilities
- natural gas refineries, processing plants, liquefaction plants
- natural gas terminals
- liquid gas depots  $\geq 2,500$  t
- gas transmission or distribution systems  $\geq 10$ km

When an EIA is required, an Environmental Management Plan

("EMP") and Social Impact Assessment ("SIA") will also be required.

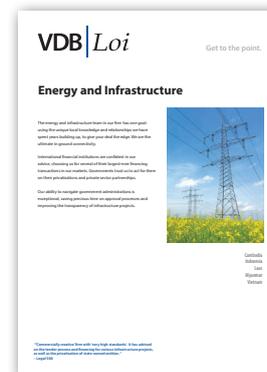
An EIA must be carried out by a third party registered with the Ministry of Natural Resources and Environmental Conservation ("MONREC"). Any LNG project should also consult Notification No 615/2015 the National Environmental Quality (Emission) Guidelines to make sure that the design and operation of the plant (as well as the data in the EMP) conforms with the law. For example, in the case of a re-gasification plant that utilizes a jetty or terminal, both Section 2.1.8 Section 2.6.2 will apply. Those sections are concerned with the effluent levels from the following sources:

- Discrete point source sanitary wastewater and storm water;
- Hydrotest water;
- Hazardous storm water drainage; and
- Cooling water

## RELATED VDB LOI PUBLICATIONS

- ▶ *Client Alert: Myanmar Proposes New 8% Tax on Import of LNG*
- ▶ *Myanmar LNG Project Update: Observations on the World Bank's Workshop of 10 November 2016*

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Edwin Vanderbruggen is one of the most prominent foreign legal advisers in Myanmar, and he is widely recognized for his experience in the energy and infrastructure space in Myanmar. Edwin's experience working with the Myanmar Government is second to none, as he advises the Government on privatization transactions and PPPs in energy, transport and telecommunications. He and his team have uniquely extensive experience in electric power, and were involved in four out of five of the Myanmar gas and renewable projects concluded in March 2016, and he advised the Japanese Government on their investment in the Thilawa SEZ. Edwin worked on the planning, negotiation, documentation and financing for projects of all types of power generation, including gas, coal, hydro, solar, wind and W2E in Myanmar. He also advises four of the 'super majors' on oil and gas interests in Myanmar and on the first LNG terminal in the country. He lives in Yangon.

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The Energy team is led by Charles Magdelaine. Charles is a French lawyer qualified to practice in Paris educated in France, the United States and China. He has extensive experience in the documentation, financing and negotiation of energy projects in Southeast Asia, and Myanmar more in particular. Charles focuses on oil and gas, infrastructure, power and other natural resources projects.

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