Allocation of Power Project Risks under Typical IPP Power Purchase Agreements
Presentation to the Union Office of the Attorney General
21 November 2013, NPT

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Purpose:

- To explain the reasons project risks are essentially allocated the same way for virtually all IPP Projects developed in emerging markets; and

- Describe how the allocation of projects risks is reflected in IPP power purchase agreements.
Balanced presentation intended:

- I represent governments, regulatory institutions, power purchasing utilities and private companies developing IPP projects.
- I have served as the Associate General Counsel for power sector regulation for the US FERC responsible for approving IPP PPA terms and conditions.
- I represented EGAT in negotiating IPP PPAs for over six and a half years.
- I represent private companies in their negotiations of IPP PPAs.
- Unique perspective of having represented all stakeholders in IPP PPAs.

My personal assessment of the optimal IPP PPA allocation of project risks.
Introduction

- In the context of power generation, Independent Power Producers (IPPs) have gained attention, especially in regions where they are regulated by the Federal Energy Regulatory Commission (FERC). IPPs are subject to terms and conditions established by the Associate General Counsel of the government.

- EGAT's position on the terms of PPA (Power Purchase Agreement) is crucial, as it determines the financial arrangements between the parties.

- PPA terms often include significant risks for IPPs, such as variations in fuel costs and market prices.

IPPs face unique challenges in negotiating PPAs, which can affect their financial outcomes and long-term sustainability.
IPP Projects typically debt financed on a “project” or “limited recourse” basis; with project cost funded 30% by equity and 70% debt;

With limited recourse debt financing, banks lend to a Project Company formed for the sole purpose of the development, ownership and operation of an IPP Project.

Only security for debt are the Lenders’ security interests in all the Project Company assets.

Lenders have no recourse against Project Sponsors.

Only Revenue available to Project Company is attributable to the “Power Purchase Agreement” with the Power Purchaser.

In virtually all emerging markets, there is only one Power Purchaser to whom IPP Power can be sold; sales to multiple Power Purchasers is either not possible or not permitted.
Risk Allocation Driven By Form of Financing and Power Sector Structure

- IPP ဆိုတာတွေကို “project” လေး “Limited recourse” လေးအပေါ် အတွက် ပါဝင်ပြီး လာရောက် ပေးထားသော အချက်ကို အပေါ် ရှိသည်။ ပုံစံများ ၂၀% အပေါ် equity ၂၀% အပေါ် debt ရှိပြီး လေးတွေ့ရန်လှူးပေး
- Limited recourse debt financing ကိုအပေါ် IPP Project လေး အပေါ် အချင်းအရှင် ရှိသည်။ အပေါ် ရှိသော အချက်ကို လေးတွေအားလုံးကို လေးတွေ့ရန်လှူးပေးသည်။
- အပေါ် ရှိသော အချက်ကို လေးတွေ အပေါ် လေးတွေ့ရန်လှူးပေးသည် လေးတွေအားလုံးကို လေးတွေ့ရန်လှူးပေးသည် အချင်းအရှင် အချင်းအရှင် အချင်းအရှင် အချင်းအရှင် လေးတွေ့ရန်လှူးပေးသည်
- Project sponsor လေးတွေ အပေါ် လေးတွေ့ရန်လှူးပေးသည်
- Power purchaser လေးတွေအားလုံးကို လေးတွေ့ရန်လှူးပေးသည် လေးတွေအားလုံးကို လေးတွေ့ရန်လှူးပေးသည်
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IIP Project လေးတွေ့ရန်လှူးပေးသည် (risk) လေးတွေ့ရန်လှူးပေးသည်
Financing Facts of Life:

- Lenders take no risks over which they cannot exercise control.
- Note: Project sponsors are not the same and have different tolerances for project risk.

Resulting Allocation Principles:

1. Allocate risks to the Party able to exercise control over such risks.

2. Allocate uncontrollable risks to the Party able to most cost effectively insure against such risks.
   
   **Advice:** Sometimes it makes sense to socialize risk than to obtain insurance.

3. Allocate uncontrollable and uninsurable risks to the Party best able to bear the financial consequences of such risks. that can “socialize” risk.
Principles for Risk Allocation

• အကြီးအကျယ်ဆောင်ရွက်ရန် စီမံခန့်သော်လည်း နောက်ဆုံးရိုးယှဉ်စေရန် မိမိအနီ အနီကျင်း ဆောင်ရွက်ရှိသည်။

• ဗုဒ္ဓအား အကြီးအကျယ်ဆောင်ရွက်ရာ လောက်စောင်းများသို့ အကြီးအကျယ်/အကျယ် ရှိ အကြီးအကျယ်ဆောင်ရွက်ရာ နေရာတွင်းရာရှိ( project sponsors) နှင့် ဆောင်ရွက်ရှိသမျှ

ဗုဒ္ဓအား စီမံခန့်သော်လည်း မိမိအနီ အနီကျင်း ဆောင်ရွက်ရှိသည်။

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Typical IPP Project Structure

Private Shareholders

Government Shareholder

Private Lenders

Multilateral and Bilateral Institutions

Export Credit Agencies

Insurance

ADB

MIGA

World Bank

EPC Contractor

Fuel Supplier

O&M Contractor

Project Company

Power Purchaser

Host Government

Subcontractor and Vendors
Conditions Precedent for PPA Effectiveness

- Execution of all key project documentation, including, in addition to the PPA, the concession or BOT Agreement, any JV Agreement, the land purchase or lease agreement, and fuel supply agreement if the supplier is state owned (protects both Project Company and Power Purchaser).

- Provision of any development security (bank guarantee) required by the PPA to be supplied to the Power Purchaser by the Project Company (protects Project Company in part from damages incurred due to delayed achievement of Financial Close and other milestones);

- Issuance of the legal opinion required to be provided by the equivalent of the Union Office of the Attorney General to address in part any legal uncertainties of concern to Lenders and the Project Sponsors. (Form of contents and attached to PPAs).
PPA Provisions Addressing Risk Allocation: Conditions Precedent

PPA ရေဒီယာရေးနှင့် ပတ်လျက် အချက် အဆို အချက် Power production Agreement (PPA) ကြာ သင်္ဃနာစားမှု

• စာရင်းပေးမှု အခြေအနေ အတွက် ဒီဇိုးယာယာဝိသေသန ပြည်သူများအတွက် Power production Agreement (PPA) ကြာ မိုးဗျူဟာ BOT Agreement သို့ အစိတ်အပိုင်း အကြား သင်္ဃနာရေး ပြည်သူများအတွက် ပြည်သူများအတွက် ပြည်သူများ အနောက်တိုက် ပြည်သူများ အနောက်တိုက် ကြား Fuel supply agreement (စာရင်းပေးမှု အတွက် အနောက်တိုက် ပြည်သူများ အနောက်တိုက် ပြည်သူများ ကို လျောက်လွှဲထားသော ပြည်သူများ)

• PPA အပေါ် development security (bank guarantee) ကို လျောက်လွှဲထားသည် ဒီဇိုးယာယာ (power purchaser) အပေါ် စာရင်းပေးမှုအတွက် Project Company ကို လျောက်လွှဲထားသည် ဒီဇိုးယာယာ အတွက် အနောက်တိုက် ပြည်သူများ အနောက်တိုက် ပြည်သူများ အနောက်တိုက် Project Company ကို လျောက်လွှဲထားသည် ဒီဇိုးယာယာ အတွက် လျောက်လွှဲထားသည်

• စာရင်းပေးမှု အနောက်တိုက် စာရင်းပေးမှု အနောက်တိုက် ကြား Fuel supply agreement အပေါ် development security (bank guarantee) လျောက်လွှဲထားသည် ဒီဇိုးယာယာ အနောက်တိုက် ပြည်သူများ အနောက်တိုက် ပြည်သူများ အနောက်တိုက် Project Company ကို လျောက်လွှဲထားသည် ဒီဇိုးယာယာ အတွက် လျောက်လွှဲထားသည် (အနောက်တိုက် အနောက်တိုက် ပြည်သူများ အနောက်တိုက် PPA အပေါ် အနောက်တိုက် ပြည်သူများ အနောက်တိုက် လျောက်လွှဲထားသည်)
Issuance of any Government Guaranty required to be provided in order to address uncertainties about

1. Power Purchaser’s creditworthiness (by guaranteeing satisfaction of payment obligations of the Power Purchaser),

2. Availability and enforceability of legal rights critically important to Project Sponsors and Lenders (by guaranteeing that specified legal rights have been obtained and can be enforced by the Project Company),
   – Repatriation Investment and Profits
   – Granting and enforceability of Security Interests Satisfactory to Lenders
   – Foreign Bank Accounts and Transactions with Foreign Currency
   – Availability of Foreign Exchange

**Are Government Guarantees required for Myanmar IPP Projects?**

– Payment Obligations of Power Purchaser - Probably Required But Not Always and Not Forever
– Receipt and Enforceability of Legal Rights - Probably Not Required
– Contractual Performance - Not Required
PPA Provisions Addressing Risk Allocation:
Conditions Precedent cont’d

Power production Agreement (PPA)

1. Power purchaser ကို ရောင်းမြူနိုင်မည် (credit
worthiness) (Power purchaser ကို ဗိုးနှဲမြူနိုင်မည်)

2. Project sponsor ကို ရောင်းမြူနိုင်မည် (Project company
be able to grant security interests (granting) be able to enforce
(enforceability)

IPP Project

- Power purchaser ကို ရောင်းမြူနိုင်မည် - ရောင်းမြူနိုင်မည် - အနေဖြင့်
- ဗိုးနှဲမြူနိုင်မည်

- Project sponsor ကို ရောင်းမြူနိုင်မည် - ရောင်းမြူနိုင်မည် - အနေဖြင့်
- ဗိုးနှဲမြူနိုင်မည် - အနေဖြင့်
Achievement of Financial Close

Financial Close occasionally included as condition precedent. Works to the advantage of Project Sponsors by relieving them of the potential loss of development security due to failure to achieve or prolonged delayed achievement of Financial Close.

Advise: Do not include Financial Close as it unduly protects Project Sponsors. However, to encourage the development of the first IPPs in an environment of legal uncertainties or uncertain project development process, it may be advisable to either include Financial Close as a condition precedent or only require development security to be provided at Financial Close.
Failure to Satisfy a Condition Precedent:

Failure to satisfy within contractually defined period permits the Party not responsible for satisfying such condition precedent to terminate the PPA.

Failure to satisfy the conditions precedent is attributable to Project Company, then the development security is forfeited. BUT BEWARE: Seeking forfeiture of the development security will most likely result in Project Company seeking compensation when failure to satisfy a condition precedent is attributable to the Power Purchaser or another governmental institution.
PPA Provisions Addressing Risk Allocation:
Conditions Precedent cont’d
Obligations to Construct

1. IPP PPAs include contractual obligations for the Project Company to:
   a) construct and operate the IPP plant in accordance with applicable laws, prudent utility practices and specification contractually specified and then commission and achieve commercial operation by the Scheduled Commercial Operations Dates set forth in the Milestones,
   b) commence construction of the IPP plant by the date specified in the Milestones; and
   c) complete construction of the IPP Project switchyard by the Scheduled Energizing Date set forth in the Milestones.

2. IPP PPAs also require the Power Purchaser to build and commission the transmission facilities required to interconnect the IPP Plant to the transmission network in accordance with applicable law, specifications contractually specified and prudent utility practices. The Power Purchaser is required by the PPA to acquire the requisite property rights and complete construction and commission of such transmission interconnection facilities by Scheduled Energizing Date.
Monitoring and Supervision

1. Project Company commonly required to file monthly progress reports with the Power Purchaser and to provide copies of all technical progress reports prepared for the Lenders.

2. Power Purchaser has contractual right to inspect construction site during all reasonable times and with reasonable notice.
Energization of Connection Point

1. The Project Company shall carry out the inspection and testing of the transmission interconnection between transmission facilities constructed by the Power Purchaser and the IPP Plant switchyard in accordance with contractually specified requirements.

2. The Power Purchaser shall review the results of the inspection and testing performed by the Project Company. Upon being satisfied with such inspections and tests, the Power Purchaser shall issue a certification to that effect to the Project Company.

Advice: Disputes as to the readiness of the connection point and switchyard are ready for Energization can be most promptly resolved by submission to the independent Engineer for resolution.
PPA Provisions Addressing Risk Allocation: Development and Construction Arrangements cont’d
Commissioning and Commercial Operation

1. Commissioning tests shall be performed by the Project Company in accordance with PPA specified requirements. Power Purchaser shall be provide notice and is entitled to have representatives attend such tests.

2. Power Purchaser shall review and comment on the results of the commissioning tests performed by the Project Company.

3. The Project Company is often required to provide the Power Purchaser with a certificate from the Independent Engineer confirming that the IPP Plant has been constructed in accordance with Prudent Practices and contractual specifications and that the commissioning tests have been properly conducted.

Advice: The date of issuance of such certificate by the Independent Engineer is a convenient means for determining the Commercial Operation Date.
PPA Provisions Addressing Risk Allocation: Development and Construction Arrangements cont’d

PPA Provisions Addressing Risk Allocation: Development and Construction Arrangements cont’d
Consequences of Delay in Commercial Operations:

1. If the Commercial Operation Date does not occur by the Scheduled Commercial Operations Date for reasons attributable to the Project Company and its contractors, the Project Company shall pay liquidated damages for day of such delay.

2. If the Commercial Operation Date does not occur by the Scheduled Commercial Operations Date for reasons attributable due to the Power Purchaser (such as its failure of the Power Purchaser to satisfy its obligation to acquire property rights and construction the interconnection transmission facilities by the Scheduled Energizing Date), the Power Purchaser often commences making payments to the Project Company commencing on the Scheduled Commercial Operations Date.

3. If upon achieving the Commercial Operation Date, if the generating capability is less than the contractually specified value used to calculate capacity payments previously made to the Project Company, then the capacity payments paid previously shall be recalculated using the correct value for the generating capabilities of the subject IPP Plant.
PPA Provisions Addressing Risk Allocation: Development and Construction Arrangements cont’d
IPP PPAs are long term (20 to 30 years) purchase obligations whereby the revenue of the Project Company is not dependent upon being dispatched to generate power.

**Thermal Power Plants**

This objective achieved by the use of two part tariffs for most all IPP projects other than hydropower projects. With two part tariffs, the IPP is paid:

1. a capacity payment which is paid to the Project Company for the periods during which the IPP project is available to generate power even though it may not be dispatched to produce power, and
2. An energy payment paid for energy generated and delivered to the Power Purchaser.

The capacity payment is structured to generate sufficient revenue to allow the Project Company to cover the costs of the development, construction and commissioning of the IPP project, repayment of debt, and recovery by the Project Sponsors of their equity investment and a reasonable profit thereon.

**Advice:** The negotiation of tariffs for IPP projects not selected by competitive solicitation will require the parties to agree on the projected cost of the IPP project and what is considered to be a reasonable profit for the Project Company and Project Sponsors; which usually requires protracted negotiations between distrustful parties. Tariffs determined by competitive solicitations need no such cost support.
PPA Provisions Addressing Risk Allocation: Purchase Obligation

- IPPs are the subject of the PPA. They agree to purchase power from Project company. The Project company is required to deliver power to IPPs at a fixed price.
- Thermal Power plants
- IPPs agree to purchase power from the Project company at a fixed tariff. This tariff includes:
  - Capacity payment
  - Power purchaser
- Capacity payment is agreed upon by Project company and IPPs. The Project company agrees to pay a fixed amount to IPPs. The Project sponsor agrees to pay a fixed amount to the Project company. The Project sponsor agrees to pay a fixed amount to the Project company. The Project sponsor agrees to pay a fixed amount to the Project company.
By divorcing project revenue from plant dispatch, the Project Company is relieved of the economic risks related to projecting the need for new generating capacity and becoming excess and unneeded generating capacity.

**Note:** *Merchant Plants.* An alternative approach that has been pursued in more mature power sectors is the Merchant Plant approach whereby the Project Company is only paid for power dispatched and delivered and there is no minimum dispatch or purchase obligation; thus relieving the Power Purchaser and its customers of the economic risk of unneeded or uneconomic generating capacity. These types of projects require the implementation of competitive wholesale power markets in which IPP Project can sell to multiple power purchasers. This approach has not yielded any successful IPP projects in emerging markets.
The Project Company is protected in part from F/X volatility by a PPA requirement that a percentage of the payments to be made to the Project Company must either be paid in US dollars (or some comparable currency) or subject to F/X adjustment. The percentage of payments subject to F/X adjustment has been based on the percentage of costs expected to be covered by foreign and local currency and the percentages of debt incurred internationally and locally.

Advice: It is not unusual for PPAs for the first IPP projects developed in an emerging market; particularly when the debt locally is limited, to require that 100% of payments to be required to be made to the Project Company to either be made in US dollars or subject to F/X Adjustment. Given the relative lack of precedents in support of the ease of converting local currency to foreign currency, the first IPP PPAs should probably require 100% of payments to be made in US dollars.
PPA Provisions Addressing Risk Allocation: Purchase Obligation cont’d

- Project revenue of plant dispatch is owed by project company and the buyer is responsible for the purchase of fuel in accordance with the terms of the Power production Agreement (PPA). The purchase obligation continues.

- Project Co., owing $17 million to the buyer, must pay the contractor for the purchase of fuel as per the terms of the PPA. The purchase of fuel is subject to 10% of the gross revenue of Project Co. In the event, the IPP Project party covers the contractor's cost of $17 million, the contractor is obligated to remit 10% of the gross revenue to Project Co. in accordance with the terms of the PPA.

- Project Co. shall purchase fuel from a merchant plant for Project's use. The purchase of fuel is subject to the terms of the PPA. The contractor shall remit 10% of the gross revenue to Project Co. in accordance with the terms of the PPA.
The Project Company is protected in part from inflation by incorporating into the formula by which Energy Payments are calculated a cost of living adjustment on the cost components for fixed and variable costs.

The risks of deficient engineering, construction, operation and maintenance is allocated to the Project Company (and then on to its contractors) by means of reductions to the capacity payments to be made to the Project Company due to interruptions or reductions in the availability of IPP Projects to generate power due to the deficient plant capabilities, prolonged or an excessive number of plant outages and operational problems with IPP plants.
Hydropower Projects

- Hydropower tariffs are one part tariffs with the Project Company paid a fixed rate for each KWh generated and delivered to the Power Purchaser.

- However, Hydropower tariffs achieve the stable revenue required to support limited recourse debt financing by paying Project Companies for energy imposing on the Power Purchaser a minimum dispatch obligation and energy not dispatched due to the failure of the Power Purchaser to satisfy the minimum dispatch obligation is deemed to have been generated and delivered to the Power Purchaser.

- As with thermal IPP Projects, the risks of deficient engineering, construction, operation and maintenance is allocated to the Project Company (and then on to its contractors) by means of the problems thereby caused reducing the kW/hrs. generated and delivered to the Power Purchaser.
PPA Provisions Addressing Risk Allocation: Purchase Obligation cont’d

- Project Co., in the event of a default of the obligor under the terms of the Power production Agreement (PPA), is entitled to enforce the terms of the Agreement.

- The project company (Project Co.) is entitled to enforce the terms of the Agreement in the event of a default, including capacity payments. If Project Co., due to capacity payments, is not able to enforce the Agreement, Project Co. is entitled to enforce the terms of the Agreement. If Project Co., due to capacity payments, is not able to enforce the terms of the Agreement, Project Co. is entitled to enforce the terms of the Agreement.

- PPA provisions include one part tariffs, which are subject to change. Project Co., in the event of a default of the obligor under the terms of the Power production Agreement, is entitled to enforce the terms of the Agreement. If Project Co., due to capacity payments, is not able to enforce the terms of the Agreement, Project Co. is entitled to enforce the terms of the Agreement.

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<table>
<thead>
<tr>
<th>Thermal Project Fuel Risks</th>
<th>Competitive Fuel Sources</th>
<th>Non-Competitive Fuel Source</th>
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<td>Availability</td>
<td>Project Company/Fuel Supplier</td>
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<tr>
<td>Transportation</td>
<td>Project Company/Fuel Supplier</td>
<td>Fuel Supplier/Power Purchaser</td>
</tr>
</tbody>
</table>

Following applicable to competitive and non-competitive fuel markets.

| Failure to Satisfy Minimum Fuel Take | Project Company responsible if attributable to Project Company or Natural Force Majeure | Power Purchaser responsible if attributable to Power Purchaser, Governmental Institutions or Government Force Majeure |

In competitive fuel markets the Project Company is solely responsible for fuel risk unable to be off-loaded to fuel supplier and is responsible for obtaining replacement fuel suppliers.

### Hydropower Project Fuel Risks

| Availability | Project Company is responsible for having sufficient water to meet PPA requirements |
Most all PPAs include Milestones which are dates by which certain critical actions are scheduled to have been taken by one or both parties, but mostly the Project Company.

Failure to achieve Milestones does not usually itself constitute an Event of Default unless expressly identified as such.

Most common Milestones are:
1. Scheduled Financial Close Date
2. Scheduled Construction Commencement Date
   Establish by initiation of continuous construction activity, initiation of particular activity or by execution of major equipment procurement contracts
3. Scheduled Energization Date
4. Scheduled Commercial Operation Date

Extension of Milestone Dates and Term
1. Milestone Dates are extended by day for day for delay caused by Force Majeure or Governmental Force Majeure.
2. Milestone dates extended day for day for delay due solely to the actions or omissions of the Power Purchaser; and
3. PPA term is extended by day for day of Force Majeure or Governmental Force Majeure occurring after the Commercial Operation Date
Liquidated Damages for Development Delays

1. Delays in achieving Certain Milestones
   Financial penalties are often required of the Project Company if any of the Milestones Dates are not satisfied for reasons other than Force Majeure and/or contractual default on the part of the Project Company.

2. Delays in Financial Closing Beyond Scheduled Financial Close Date

3. Delays in Commercial Operation Beyond Scheduled Commercial Operations Date
   If Commercial Operation fails to occur by the Scheduled Commercial Operation Date, Project Company to pay liquidated damages for each day of such delay. Such liquidated damages should equal a contractually specified amount per day (e.g. THB 4/kWh) multiplied by the number of days of delay in achieving commercial operation. Such payments are to continue until either the Commercial Operation Date is achieved or the date which is 240 days after the Scheduled Commercial Operation Date.
PPA Provisions Addressing Risk Allocation: Liquidated Damages

PPA အကြောင်းတွင် မြောက်ကြားချက်အား ပေးထားသည်။

(၃) ပရောင်ကြားတွင် အပြုလောင်းချက်များ အပြုလောင်းချက်များ ဖော်ပြသည်။

Project Company အကြောင်းတွင် လက်ရှိ အပြုလောင်းချက်များကို ဖော်ပြသည်။ အပြုလောင်းချက်များကို Project Company နှင့် ပြန်လည်ပြောင်မှုများကို အသုံးပြုသည်။

(၄) ကြယ်ကြက်များအားဖော်ပြသည်။

အချိန်က ကြယ်ကြက်များ အပြုလောင်းချက်များ ဖော်ပြသည်။ အပြုလောင်းချက်များ ဖော်ပြသည်။ Project Company အဖြင့် လက်ရှိ အပြုလောင်းချက်များ ဖော်ပြသည်။ အပြုလောင်းချက်များကို ပြန်လည်ပြောင်မှု ဖော်ပြသည်။

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Liquidated Damages for Deficient IPP Plant Capabilities

If the generating capability of an IPP Project established by commissioning testing conducted immediately before the Commercial Operation Date is less than a contractually specified amount, the Project Company shall pay liquidated damages to the Power Purchaser on a one-time basis (contractually specified amount (e.g. THB 4,000 per kW) multiplied by the difference between the contractually required amount of generating capacity and the tested generating capacity established by the commissioning testing).

Right to Retain Development Security To Collect Liquidated Damages

Unless a Milestone Date has not been met by the Project Company due to Force Majeure or PPA default on the part of the Power Purchaser, the Power Purchaser has the right to retain so much of the Development Security as is required to satisfy the Project Companies’ liabilities for liquidated damages, plus accrued interest.
PPA Provisions Addressing Risk Allocation: Liquidated Damages cont’d
Project Company Defaults

1. Payment default of any undisputed amount and such default continues unpaid for a defined period (e.g. 60 days after date of default notice);

2. The Financial Close Date fails to occur with defined period after the Scheduled Financial Close Date;

3. Abandonment of engineering, design, construction, operation and/or maintenance of IPP Plant for defined period;

4. The Commercial Operation Date fails to occur within defined period after the Scheduled Commercial Operation Date;

   And Project Company fails (i) to indicate within ten (10) days of receipt of default its intent to resume such activities within a period of time agreeable to Power Purchaser, and (ii) to resume such activities within such period.

5. IPP Plant performance during contractually defined period falls below contractually specified standard of performance;

   Actual availability falls below percentage of availability able to be achieved if IPP Plant was available at its contracted capacity during such period, excluding periods when IPP Plant adversely affected by Force Majeure and contractual defaults of the Power Purchaser; and

6. Project Company fails to comply with or operate in conformity with any material obligation under the IPP PPA.
PPA Provisions Addressing Risk Allocation: Defaults

PPA သည်မေးခွန်းချက်များအားဖော်ထားရန် ဖော်ပြပါသည်:

- Project Company အဖွဲ့စည်းချက်:
  1. အရေးရှိများအားဖော်ထားသော အရေးရှိများအားဖော်ထားသည်
  2. အရေးရှိများအားဖော်ထားသည်

Defaults
Power Purchaser Defaults

1. Payment default of any undisputed amount and such default continues unpaid for a defined period (e.g. 60 days after date of default notice); and

2. Failure to comply with or operate in conformity with any material obligation of IPP PPA.

Defaults Common to Both Parties

Either Party (i) is dissolved or liquidated (other than voluntary dissolution or liquidation as part of a reorganization, privatization or reincorporation), (ii) is reorganized, privatized, reincorporated or is abolished by law or any other governmental action, without, in all cases, the successor thereto being capable of performing its IPP PPA contractual obligations; (iii) makes a general assignment of any of its rights under the IPP PPA for the benefit of its creditors, (iv) enters voluntary insolvency proceedings or is adjudicated bankrupt under any insolvency law.
PPA Provisions Addressing Risk Allocation: Defaults cont’d

- "defaulting borrower" shall be defined as any borrower under this Agreement that has failed to make any payment required under this Agreement for a period of more than 30 days after the due date therefor.

- If the default is not cured within the cure period as specified in the Loan Agreement, the Lender may, at its option, declare the loan to be in default and may take such action as it deems necessary to enforce its rights and remedies provided for in this Agreement. This includes the right to accelerate the payment of all amounts due under the Agreement.

- The loan may be accelerated even if the default is cured.

- The Lender shall have the right to collect any amounts due under the Agreement from the borrower, including interest and fees.

- The Lender may also exercise any other rights and remedies provided for in the Agreement.
Cure Periods

1. For remediable defaults, initial cure period of 60 days is usually provided, which can be extended to 180 days if unable to be cured within 60 days.

2. For defaults unable to be remedied, termination can be exercised immediately upon notice of non-defaulting Party.
PPA Provisions Addressing Risk Allocation:
Default: Cure Periods and Step In Rights cont’d

- Step In Rights
  1. Power Purchaser often has the right (but no obligation) to step in and assume operational control of IPP Plant when the default of the Project Company can be remedied by Power Purchaser.
  2. Power Purchaser not permitted to exercise step-in rights until applicable cure period afforded the Project Company has expired, provided step-in can occur earlier if Project Company is not diligently trying to remedy the applicable default.
  3. Throughout step-on period, Power Purchaser is entitled to reasonable compensation and shall have the same liability to the Project Company as would a third party operation and maintenance contractor;
  4. Power Purchaser may return operational responsibility for the IPP Plant to Project Company at any reasonable time, provided IPP Plant shall be returned in a condition no worse than when Power Purchaser exercised its step-in rights, ordinary wear and tear excepted; and
  5. Power Purchaser may terminate IPP PPA if at any time it reasonably determines that the Event of Default leading to the exercise of step-in rights cannot be cured.
PPA Provisions Addressing Risk Allocation: Default: Cure Periods and Step In Rights cont’d

- Default: Cure Periods and Step In Rights

(3) Project Company အောက်ပါအချက်မှာ ဖော်ပြထားပါလိမ့်းစေရန် ဖော်ပြထားပါလိမ့်းစေရန် Project Company တွင် ဖော်ပြထားပါလိမ့်းစေရန် (အချက်အလက်များ တွင်) IPP Plant ဖော်ပြထားပါလိမ့်းစေရန်

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(9) Project Company ဖော်ပြထားပါလိမ့်းစေရန် ဖော်ပြchetuppa lain rupture
# PPA Provisions Addressing Risk Allocation: Default Termination

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<tr>
<th>Project Company Default</th>
<th>Power Purchaser Default</th>
</tr>
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<tbody>
<tr>
<td>Power Purchaser may acquire IPP Plant for <strong>Debt OR</strong> Project Company pays Power Purchaser amount equal to Transmission Facilities Cost + Administrative Cost + CF + [Contracted Capacity * Lost Capacity Payment * (52-M)/52] – Residual Value of Transmission Facilities.</td>
<td>Power Purchaser must acquire IPP Plant for payment equal to <strong>Debt + Equity + Interest on Equity + Counterparty Outstanding Payments - Counterparty Outstanding Payments – Liquid Assets.</strong></td>
</tr>
<tr>
<td><strong>Pre-Commercial Operation</strong></td>
<td>Power Purchaser has right to acquire IPP Plant for <strong>Debt OR</strong> Project Company pays Power Purchaser amount equal to Transmission Facilities Cost*(1-Y/25) + Administrative Cost + (Lost Capacity Payment* Registered Capacity) – Residual Value of Transmission Facilities.</td>
</tr>
<tr>
<td><strong>Post Commercial Operation</strong></td>
<td>Power Purchaser has right to acquire IPP Plant for <strong>Debt OR</strong> Project Company pays Power Purchaser amount equal to Transmission Facilities Cost*(1-Y/25) + Administrative Cost + (Lost Capacity Payment* Registered Capacity) – Residual Value of Transmission Facilities.</td>
</tr>
<tr>
<td>LER equals the sum of the stream of dividends, as such dividends were originally projected for such period multiplied by the Historic Operating Performance Factor, discounted to its present value by applying the Discount Rate.</td>
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</tbody>
</table>

BUT other PPAs simply reference rights to recover damages under applicable Laws, but consequential damages always prohibited.
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<thead>
<tr>
<th>PPA Provisions Addressing Risk Allocation: Default Termination</th>
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<table>
<thead>
<tr>
<th>Project Co.</th>
<th>PPA Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>项目公司</td>
<td>PPA 电站</td>
</tr>
<tr>
<td>委托方</td>
<td>电站方</td>
</tr>
</tbody>
</table>

**PPA restitution calculation**

**Case 1: PPA Plant Failure**

- Project Company's liability = PPA Plant's Liabilities * (1-Y/25) + 项目公司的责任 = 电站方的债务 * (1-25/100) +

**Case 2: Project Company Failure**

- PPA Plant's liabilities = Project Company's liabilities + 电站方的债务 = 项目公司的债务 +

**PPA Restitution Calculation**

- LER = ereco(1-Y/25) + 电站方的责任 = 项目公司的债务 * (1-25/100) +

Note: The above calculations are simplified representations and may require specific legal and financial details for accurate application.
**Definition:** Force Majeure is an event, condition, or circumstance and the effects thereof *beyond the reasonable control* and *without the fault or negligence* of the Party claiming Force Majeure, which, *despite all reasonable efforts* of the Party claiming Force Majeure to prevent it or mitigate its effects, causes a delay or disruption in the performance of any contractual obligation. Risk cannot be allocated based upon which Party is best able to control risk.

- **Two Types of Force Majeure**
  2. **Government or Political Force Majeure** - Change In Law, Failure To Obtain or Renew Governmental Approval, War, Revolution, Embargo, Insurrection Expropriation or Compulsory Acquisition. *Either Not Insurable or Insurable At Great Expense.*

Not always clear which category a set of circumstance falls: Terrorism, Civil Unrest, Foreign War Impacting Trade,

- Extends to Contractors Affected by Force Majeure
PPA Provisions Addressing Risk Allocation: Force Majeure - Definition

- **Force Majeure - Definition**

  a. Situations attributable to acts of God, insurrection, rebellion, and war, including any kind of armed conflict, have not been mentioned in the agreement.

  b. The agreement does not address any other situations that may be considered force majeure.

  c. In the event of a force majeure, the parties shall be entitled to terminate the agreement without liability.

  d. The parties shall be required to notify each other promptly of any occurrence of force majeure.

  e. The agreement provides for a suspension of payment obligations in the event of force majeure.

  f. The agreement does not provide for any indemnification or compensation for losses incurred as a result of force majeure.

  g. The agreement provides for a mutual obligation to use reasonable efforts to mitigate the effects of force majeure.

  h. The agreement does not provide for any extension of time for performance of obligations.

  i. The agreement provides for a mutual obligation to use reasonable efforts to resume performance of obligations as soon as possible after the force majeure event.

  j. The agreement does not provide for any alternative performance arrangements in the event of force majeure.

  k. The agreement does not provide for any insurance or indemnity against losses incurred as a result of force majeure.

  l. The agreement does not provide for any dispute resolution mechanisms in the event of force majeure.
PPA Provisions Addressing Risk Allocation: Force Majeure - Types of Relief

- Suspends Contractual Obligation Whose Performance Adversely Affected
- Extends Period of Time Provided to Render Contractual Performance
  1. Pre-COD: Extends Milestone Dates
  2. Post-COD: Extends PPA Term
- Commencement or Continuation of Payments to Project Company During Certain Types of Force Majeure
- Compensation to Project Company When IPP PPA Terminated Due to Certain Types of Prolonged Force Majeure
PPA သို့မဟုတ် တိုက်ခိုက်မှုသည် အခြားပြုလုပ်ခြင်းအားဖြင့် ပြောင်းလဲခြင်းကို ဖော်ပြသည်။

- အောက်ပါအတွက် ပြုလုပ်ခြင်းမှာ မြေဘေးရောဂါမှုပြောင်းလဲခြင်းအရေအတွက် ဖော်ပြသည်။

- ရောဂါမှုပြောင်းလဲပြီး အခြေခံအခြေအောက်တွင် ဖော်ပြသည်။

  1. ပြုလုပ်ခြင်းအားဖြင့် အတိုက်အခြေ (COD) ခြင်းအားဖြင့် ပြုလုပ်ခြင်းကို ဖော်ပြသည်။

  2. ပြုလုပ်ခြင်းအားဖြင့် အတိုက်အခြေ (COD) ခြင်းအားဖြင့် ပြုလုပ်ခြင်းကို ဖော်ပြသည်။

- Project Co. ပြုလုပ်ခြင်းအားဖြင့် ဖော်ပြသည်။

- IPP, PPA ပြုလုပ်ခြင်းအား Project Co. ဖော်ပြသည်။
## PPA Provisions Addressing Risk Allocation: Force Majeure - Start and Continuation of Payments

<table>
<thead>
<tr>
<th></th>
<th>Pre-COD</th>
<th>Post-COD</th>
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<tbody>
<tr>
<td>Natural Force Majeure Affecting Project Company</td>
<td>No Payments (Insurance Relied Upon)</td>
<td>No Payments (Insurance Relied Upon)</td>
</tr>
<tr>
<td>Natural Force Majeure Affecting Power Purchaser</td>
<td><strong>Debt Protected, Equity Not Protected.</strong> Compensation in an amount at least equal to servicing debt is paid when Natural Force Majeure affecting Power Purchaser delays Commercial Operation Beyond Scheduled Commercial Operation</td>
<td><strong>Debt Protected, Equity Less Protected.</strong> Compensation in an amount at least equal to servicing debt is paid when Natural Force Majeure affecting Power Purchaser delays Commercial Operation Beyond Scheduled Commercial Operation But if continues for prolonged period, the Payments resume.</td>
</tr>
<tr>
<td>Government Force Majeure Affecting Project Company</td>
<td>Payments Start if Force Majeure Delays Commercial Operation Beyond Scheduled Commercial Operation</td>
<td>Payments Continue During Period of Force Majeure</td>
</tr>
<tr>
<td>Government Force Majeure Affecting Power Purchaser</td>
<td>Payments Start if Commercial Operation Delayed Beyond Scheduled Commercial Operation Due To Force Majeure</td>
<td>Payments Continue During Period of Force Majeure</td>
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<td>PPA Provisions Addressing Risk Allocation:</td>
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<td>Force Majeure - Start and Continuation of Payments</td>
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<tr>
<th>Project Co</th>
<th>Start of (COD) Payments</th>
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</table>
• Unique Type of Government Force Majeure

• Definition

Any of the following events occurring after the Execution Date as a result of any action by any Governmental Authority: (i) a change in or repeal of an existing Law, (ii) an enactment or making of a new Law, and (iii) a change in the manner in which a Law is applied or in the application or interpretation thereof.

• Additional Relief: Tariff adjustment to compensate Project Company for Additional Costs Incurred To Preserve Unaltered Financial Position

• Includes changes to Tax Laws and Rates
PPA Provisions Addressing Risk Allocation:
Force Majeure - Change in Law

- Addressing the allocation of risk in the context of PPA provisions
- Force Majeure
- Change in Law

- Under the provisions of the PPA, risk allocation is addressed
- Addressing changes in law and force majeure
- The provisions outlined in the PPA ensure that risk is allocated fairly

- Specific rules outlined in the PPA address risk allocation
- These rules are aimed at ensuring a fair allocation of risk
- The PPA includes provisions for changes in law and force majeure

- The PPA aims to address risk allocation fairly
- Specific rules in the PPA ensure a fair allocation of risk
- Changes in law and force majeure are addressed within the PPA

- The PPA provides for a fair allocation of risk
- Changes in law and force majeure are managed within the PPA
- Specific rules in the PPA ensure a fair allocation of risk

- The PPA aims to address risk allocation fairly
- Specific rules in the PPA ensure a fair allocation of risk
- Changes in law and force majeure are managed within the PPA

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**Natural Force Majeure Affecting Power Purchaser**

In some cases, generally no compensation. But if Force Majeure affects Interconnection Facilities, the Power Purchaser must acquire the IPP assets for an amount equal to **Debt + Equity + Interest on Equity + Counterparty Outstanding Payments - Counterparty Outstanding Payments – Liquid Assets.**

In other IPP PPAs, the Power Purchaser must acquire the IPP and pay an amount equal to Debt, Equity, Retained Earning (including statutory reserves) less any insurance proceeds obtained by the Project Company.

**Government Force Majeure Affecting Project Company**

Power Purchaser must acquire IPP Plant for payment equal to **Debt + Equity + Interest on Equity + Counterparty Outstanding Payments - Counterparty Outstanding Payments – Liquid Assets.**

Power Purchaser must acquire IPP Plant for payment equal to **Debt + Equity *(1-Y/25) + Lost Equity Return + Counterparty Outstanding Payments – Project Company Outstanding Payments – Liquid Assets.**

**Government Force Majeure Affecting Power Purchaser**

Power Purchaser must acquire IPP Plant for payment equal to **to Debt + Equity + Interest on Equity + Counterparty Outstanding Payments - Counterparty Outstanding Payments – Liquid Assets.**

Power Purchaser must acquire IPP Plant for payment equal to **Debt + Equity *(1-Y/25) + Lost Equity Return + Counterparty Outstanding Payments – Project Company Outstanding Payments – Liquid Assets.**
<table>
<thead>
<tr>
<th>Project Co.</th>
<th>Force Majeure Termination</th>
<th>Project Co.</th>
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<tbody>
<tr>
<td></td>
<td>Force Majeure- Termination Compensation</td>
<td></td>
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<tr>
<td>(Project Co’s Average Value)</td>
<td>IPP PPA’s Average Value</td>
<td></td>
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<tr>
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<td>(IPP PPA’s Average Value)</td>
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</tbody>
</table>
- Force Majeure does not apply to Payment Obligations.
- Mechanical or electrical breakdown or failure of equipment due to operation and maintenance is not Force Majeure.
- Performance failures of contractors does not constitute Force Majeure.
- Force Majeure cannot be claimed simply because circumstances have occurred which have increased the costs of performance or other adverse economic consequences incurred through the performance of such obligations.
- Relief only available if affected Party is satisfying its duty to mitigate the effects and consequences of Force Majeure.

- စိတ်ဝင်စားချက်အားဖြင့်ကုန်တာမှုအောင်မြင်သော သောက်ရဆုံးမှုကို မချင်းစွာဖြင့်သောက်ရစ်သောကျင်းပသည်။
- စိတ်ဝင်စားချက်တွင် ပြည်ထောင်စုအားဖြင့် ပြည်သူလူငယ်များ၏ အားလုံးကိန်းများအား ပြုလုပ်ရန် ဖြစ်သည်။ စိတ်ဝင်စားချက်တွင် စိတ်ဝင်စားချက် တိုင်းပြည်များ ဖြစ်သည်။
- ပြည်ထောင်စုအားဖြင့် ပြည်သူလူငယ်များ၏ အားလုံးကိန်းများအား ပြုလုပ်ရန် ဖြစ်သည်။
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Common Debate: Is Government Force Majeure appropriate when Power Purchaser is not government owned?

- Argument is that GFM appropriate because government owned Power Purchasers should be responsible for the Governmental Actions. If not government owned, why should Power Purchaser be responsible the financial consequences of government action. Example: Thai Domestic IPP PPAs.

- This argument misses the point of GFM. There are a category of risks (not limited to the adverse consequences of governmental action) the financial consequences of which must be covered from some source, and the source for these risks is the Party best able to cover such costs.

- In emerging markets such as Myanmar, where a competitive wholesale power market does not exist, the Power Purchaser is best able to cover these risks as they “socialize” such costs across their entire customer base.

**Note:** No different that what is already occurring for power plants owned and operated by such Power Purchasers.
PPA Provisions Addressing Risk Allocation:
Justification for Government Force Majeure

PPA provisions addressing risk allocation:
Justification for Government Force Majeure (GFM) are often controversial:

- The provision or GFM is considered a form of government intervention.
- In Thai domestic IPP PPAs, the GFM has been a controversial issue.
- The GFM is often seen as a means of transferring risk to the developer.
- The GFM is often criticized for being too broad.

RF6: A comprehensive analysis of the GFM is necessary to ensure fairness and transparency in the PPA provisions.
Review, Comment and Approval of IPP Plant Design

1. Project Company to provide all drawings, reports and certificates with regard to the design, construction and completion of the IPP Plant
2. Project Company to provide Power Purchaser with copies of executed contracts for the design and construction of the IPP Plant, for Fuel supply, and O&M Services

Insurance Requirements

1. Project Companies to obtain insurance coverage standard for limited recourse debt financing and as required by applicable law, financing documents and prudent utility practices for full PPA term.
2. Project Company to submit documentation to show insurance in place.
3. Project Companies generally not permitted to reduce the scope of such insurance without the prior written consent of Power Purchaser.

Equity Ownership Transfer Restrictions

PPAs often restrict the project sponsors’ rights to sell, transfer their shares in Project Company to ensure project sponsors remain involved in project through achievement of Commercial Operation and usually one complete round of major maintenance.
PPA Provisions Addressing Risk Allocation:  
Other Provisions to Protect Power Purchaser

- IPP ဒေတာပေါင်း design ပေးထားသည်မှ အကြောင်းအရာနှင့် ချစ်သည်။

- Project Company ကိုပေါ် ပေးထားသည် IPP ဒေတာပေါင်း design ပေးထားသည်မှ အကြောင်းအရာနှင့် ချစ်သည်။

- Project Company ကိုပေါ် ပေးထားသည် O&M ပေးထားသည် ပေးထားသည်မှ အကြောင်းအရာနှင့် ချစ်သည်။ Power Purchaser အကြောင်းအရာပေးထားသည်။

- အကြောင်းအရာနှင့် RF7

- Project Company ကိုပေါ် ပေးထားသည် O&M ပေးထားသည်မှ အကြောင်းအရာနှင့် ချစ်သည်။

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Performance Security

Requirements regarding O&M Contractor

Project Companies are commonly required to submit monthly or quarterly reports from the O&M Contractor setting forth information contractually specified in IPP PPAs as well as all O&M Reports provided to Lenders.
Environmental and Social Obligations

1. Project Company required to comply with all applicable environmental Laws and contractually specified environmental requirements and, for hydropower IPP projects, social obligations.

   Contractually specified environmental standards set forth the requirements of applicable Law and the environmental mitigation measures identified in an environmental assessment performed for the subject IPP Project.

2. For IPP Projects internationally financed in emerging markets with embryonic environmental Laws. Lenders will require such IPP Projects to comply with World Bank environmental standards and such requirements will also be contractually specified.

3. Project Company is required to comply with environmental requirements more stringent that are contractually specified, but such additional requirements are virtually always treated as “Change in Law.”
PPA Provisions Addressing Risk Allocation: Other Provisions to Protect Power Purchasers cont’d

- Alternative to RF8
- O&M provisions in long-term contracts with IPPs
- Project Company in IPP PPAs: Project Company is responsible for O&M costs. In the event of a dispute, O&M costs are to be borne by the IPP.
- Value for Money Evaluation Process.
Assignments

1. Parties to IPP PPAs are not permitted to assign any of their rights or obligations under IPP PPAs without the prior written consent of the other Party.

2. This requirement may be softened by agreement that such consent shall not be withheld or delayed if the Party whose consent is required has been shown to its reasonable satisfaction that the proposed assignee has adequate legal, financial and technical capabilities to perform the assigned PPA obligations.

3. Project Company is permitted to assign its right, title and interest in and to the Project assets to Lenders as security for loan repayment.
Arbitration

1. Dispute resolution usually requires amicable discussions. Absent amicably addressing a dispute, matters under IPP PPA are commonly resolved by final and binding arbitration in a neutral and in English using one of several international conventions. implemented according to one of several international conventions.

2. Mediation is often used as an alternative available to be used by disputing parties.

3. Arbitration awards must be enforced through the courts.

4. Final and Binding are not always so.
PPA Provisions Addressing Risk Allocation:
Other Important Provisions *cont’d*

- **Governing Law**
  Interests of Project Company and Lenders protected against uncertain legal system within an emerging market by the specification of New York or English law as either the sole governing law or as a supplement to local law.

- **Privatization**
  1. IPP PPAs specify that new privatized entity have the same financial and legal capabilities as original state owned Power Purchaser. Relief: Termination.
  2. If no longer state owned following privatization, provisions requiring Power Purchaser to bear financial consequences of Governmental Force Majeure to be deleted subject to prior approval of Lenders.

- **Indemnification**

- **Additional Forms of Contractual Relief**
PPA Provisions Addressing Risk Allocation: Other Important Provisions cont’d
Substitution Without Consent

The Lenders may exercise their security interests and substitute themselves, their designee or appointee, or the third party which purchases the IPP Project without the prior consent of Power Purchasers; provided that PPAs will require such third party to (1) have sufficient legal, financial and technical capabilities to satisfy its PPA obligations, and (2) agree in writing to be bound by all the terms, conditions and provisions of the subject PPA.

Advice: *Power Purchaser should have the right to reject such assignment or designation if it does not conform to the requisite conditions.*

Restrictions on Exercise of Step-In Rights

For so long as the Financing Documents remain in effect, Power Purchaser shall not exercise its step-in rights (i) without first obtaining the consent of the Lenders, or (ii) if operation of the Facility has been assumed by the Lenders or an approved designee of the Financing Parties.
PPA Provisions Addressing Risk Allocation:
Special Protections Afforded Lenders

- အားလုပ်ခွင်းများအားလုံးအားလုံးကို လေးနှစ်စဉ် ပြသားရသော အခြေခံချက်များကို ဖော်ပြပါသည်။
 IPP Project အားလုံးကို များစွာ အားလုံးအားလုံးကို ပြသားရသော အခြေခံချက်များကို ဖော်ပြပါသည်။
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 အခြေခံချက်များကို ဖော်ပြပါသည်။
- Payment Waterfalls and Requirements re Dividend Payments
- Additional Cure Periods
  Lenders that have exercised their security interests and substitute themselves, their designee or appointee or the third party for the Project Company are given an additional period to remedy Project Company Default. Power Purchaser agrees not to terminate PPA until full cure period afforded Lenders has expired.
- Application of Insurance Proceeds
  For so long as the Financing Documents remain in effect, Lenders determine whether insurance proceeds are to be applied to rehabilitate damaged IPP Plant.
- Disclosure Not Subject to Confidentiality Restrictions
  Confidential information may be disclosed to Lenders.
- Subordination Agreement Between Power Purchaser and Lenders
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Yes... THERE IS A VOLUME THREE PPA TOTALED MORE THAN ALMOST 1,000 PAGES

80 Pages of Definitions

120 Pages required to Calculate Payments
Conclusions and Advice

Conclusions

1. Terribly Complex – Prolonged Negotiations
2. Impossible to Get Perfect
3. International Debt Financing Standards Must Be Met
4. There are Standard Approaches Globally Recognized
5. Not All Power Markets Have Same Allocation of Project Risks

Advice

1. Avoid Unnecessary Complexity
2. Use Financed PPA From Another Country As Model
3. Develop Standardized PPA (although loses distinguishing equity risk tolerances)
4. Realistic Expectations (Emerging Market, Little Legal Precedent Non-competitive Fuel)
5. World Bank and ADB Involvement Beneficial- But May Slow Process
6. Three Principles of Risk Allocation Point the Correct Direction
Conclusions and Advice
Thank you!

Robert Fitzgibbons
Senior Counsel

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Excellence · Creativity · Trust

Since 1994