Horizon 2020 CB/MEP

Risks and Risk Sharing-
Project Cooperation

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General Rules

1- The essence of any project finance is the identification of risks for the project under development followed by detailed analyses.
2- This allows each party to the project to consider the liabilities that it has to assume and when
3- Liable party to any risk shall be ready and prepared to take mitigation measures
4- Risk allocation with an exhaustive identification shall take place at an early stage of the project preparation and be part of the instruction to bidders and request for proposal
5- Risk shall be assumed by the party best able to manage and control
6- All risks shall be subject to negotiations during the bidding stages up to financial closure

Type of Risks, Liable Party and Concerns 1/

Each risk has its own cost. And involved parties would naturally try to shift the risk away or find any way to protect themselves

Type of Risk	Best assumed by	Concerns/Effect	Remarks
Non-Political FM (example, act of God)	Owner & Developer/PC Developer	Completion delays, cost increase. Split may be 50:50 but lenders will not take any part of this risk	Occurrence of incidents which prevent the Party claiming the Force Majeure Event (the "Affected Party") from performing its obligations
Indirect Foreign Political FM	Owner & Developer/PC	Completion delays, cost increase. Split may be 50:50 but lenders will not take any part of this risk	Act of war, armed conflict, blockade, embargo, riot, revolution, etc.. **that occur outside the country and do not directly involve it**

Type of Risks, Liable Party and Concerns 2/

Type of Risk	Best assumed by	Concerns/Effect	Remarks
Indirect Local Political FM	Owner Except if strikes that has its origin in the Project Company's, the Contractors' or any other subcontractor's (of any tier) handling of labour relations.	Completion delays and cost overrun. The owner and the Developer/PC bears its own cost	Act of war, armed con-flict, blockade, embargo, riot, revolution, Strikes etc **that occur inside the country or directly affects the country**
Political FM	Owner		Change in Statutory Requirements, expropriation, nationalization etc

Type of Risks, Liable Party and Concerns /3

Type of Risk	Best assumed by	Concerns/Effect	Remarks
Construction	Developers through the Project Company, or Consultants and contractors	Not meeting services expectations, quality, etc. Delays, quantities	Lenders and Owners prefer an EPC contract or a Turnkey (FIDIC Silver Book) But overall management stays with the P Company
Price	Developer through the Project Company	Cost overrun , delays or failure to complete. Cash flow will be affected and fear of termination	Lender & Owners prefer Lump sum price or not to exceed price. Any changes shall be referred to them for approvals
Market Risk	Developer and some times shared with Owner. Lenders may offer	Increase in prices beyond the control of any party may cause losses and failures.	

Type of Risks, Liable Party and Concerns 4/

Type of Risk	Best assumed by	Concerns/Effect	Remarks
Operating Risk	Developers through either the Project Company or an O&M Company	Bad performance affecting qualities and quantities and the life time of the project	Lenders and Owners require their approval of the operator and their consent to the undertaking and the running cost including renewals
Reserve Risk	Owner	Quantity , revenue stream and cost recovery	All Parties shall be protected by the Owner

Some Mitigation Solutions /1

Every party, accepting any risk, will try to protect itself by many means:

1- Insurance companies offer their services during the project term. Developers shall consider this option at an early stage

2- Standby facilities between the Lenders and the Developers

3- Partial Risk Guarantees offered by some institutions such as the WB. But this is another way of diverting the risk to the owner

Some Mitigation Solutions 2/

4- Offering step-in rights to the lenders to give comfort and leverage the project finance

5- Involving Export Credit Agencies gives more flexibility in overcoming some types of risks such as the cost, and some political FM events BUT given by individual countries to their own team

6- Payment assurance schemes by the Owner

7- Sovereign Guarantee shall be the last resort. This depends on the importance of the project and the complexity.

Risks and Their Mitigation 1/

- **Availability risk,** services may be less than required. Private sector is penalized.
- **Completion (technical and timing) risk,** construction and design risk. Performance Bond both during construction and operations.
- **Counterparty credit risk,** most obvious and common associated with other parties to the agreement unable to deliver. Due diligence is done and obtaining Performance Bond.
- **Country (political) risk,** investors review history and watch carefully to stop funds or take steps to repatriate funds.
- **Currency risk,** part of construction and operating risk when revenue and expenses are in different currencies. Laws mitigate this but best managed by hedging, agreeing with suppliers on fixed rates but also can be mitigated by arranging a portion to be paid in relevant foreign currency or borrow as much as possible in local currency.

Risks and Their Mitigation 2/

- **Force majeure risk,** natural or manmade . It’s accounted for when valuing the project and deciding on the required rate of return.
- **Inflation risk,** when actual inflation exceeds projected risk. Mitigated by indexing.
- **Input and throughput risk,** when viability depends on supply of sufficient natural resources. Proper due diligence.
- **Market (demand) risk,** may be affected by increases in cost of raw materials, development of substitute service, overall economic conditions, government policy (taxes), political developments, and environmental concerns. Mitigated by requesting certain conditions in agreement such as automatic rate increases, take or pay, etc..
- **Operating risk,** applies to certain resources. May be directly controlled by Company’s management (labor issues) or external (exchange rates on imported supplies). Mitigated by good labor relations, long term fixed supply contracts, insurance, and adherence to environmental and other laws and regulations.

Risks and Their Mitigation 3/

- **Regulatory risk,** applies to regulated projects with risk ranging from complete disallowance to recover costs to regulatory lag. Controlled by stipulating in agreement that volatile cost factors are automatically passed on to customers.
- **Residual value risk,** applies only to projects when value is fixed to assets upon handing over to public sector at end of project. Mitigate by assigning a residual value up front.
- **Resource risk,** when natural resources required in the project are not of the expected quality or quantity. Mitigate by due diligence.
- **Technology risk,** possible changes in technology resulting in providing service being provided with suboptimal technologies. Contracts may address this and corrective measures are set up.