Philippines Natural Gas Master Plan – Transaction Structure

Phase Two Public Consultation

20th March 2014

Prepared for:

THE WORLD BANK

Supported by:

Australian Aid

Prepared by:

THE LANTAU GROUP

strategy & economic consulting

Disclaimer

The World Bank commissioned the study, supported by AustralianAid, but the work is being done for DOE.

The views expressed in our Report and in this Forum are those of The Lantau Group.

DOE has only recently received the Phase Two report.

Nothing in our report, nor anything said today, should be taken as DOE policy.

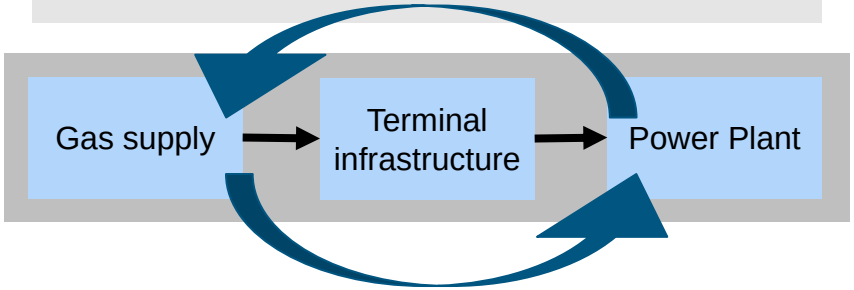
Transaction Structure Recommendations

Identified issues

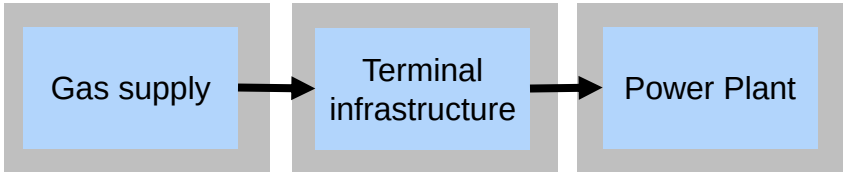
Recommendations

1

A linked transaction with a long chain of inter-related projects has very large transactional risk and should be avoided



Decouple the LNG terminal decision from specific new power plant capacity decisions



2

Demonstrable least-cost solution is critical if some of the costs are going to be passed to regulated consumers

- Market-test the opportunity through an open season for capacity
- Competitive selection process to find infrastructure supplier

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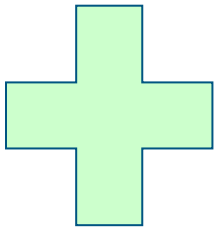
Preferred Option has two parts

Facilitation

- Improve regulation of power sector to facilitate a space for mid-merit plant
  - Ideally by ensuring incentives for a balanced and economic plant mix
- Clarify downstream gas regulations and tax situation
- Clarify LNG terminal regulations (or lack of them) to give terminal certainty
- Education and capacity building
- Policy statements to support this



Transaction Structure

- Backup Services for Malampaya
  - Paid for by regulated consumers
- Open Season to allow anyone else to purchase capacity in the terminal

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  this

Tom will cover this section later

Transaction Structure

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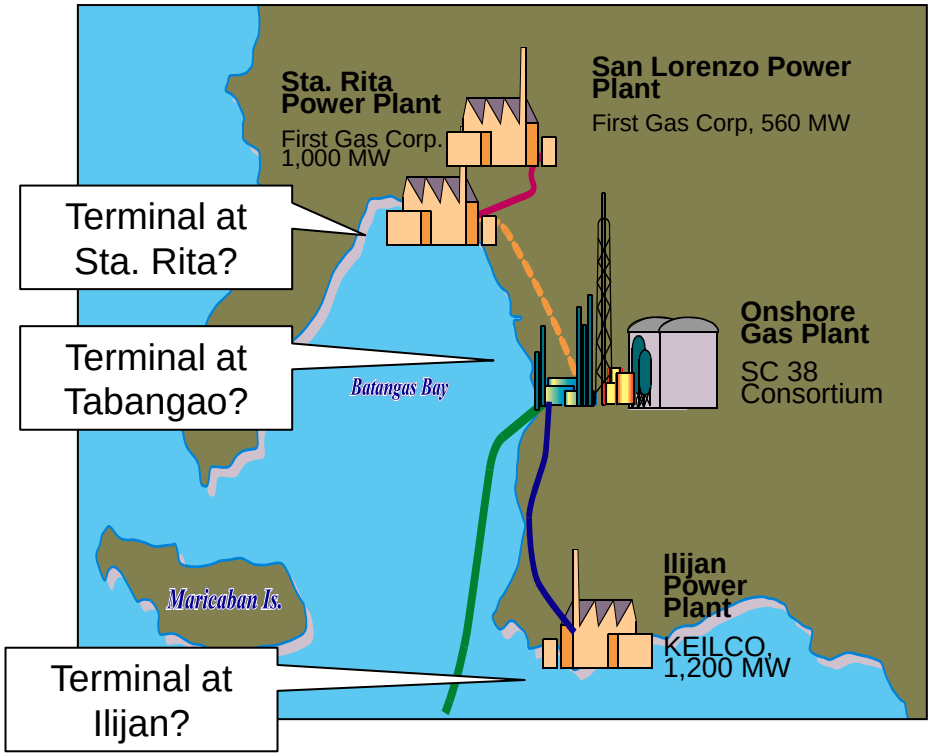
Transaction Component is focused on

- Separating infrastructure from gas purchase, to fast track the infrastructure and allow options for gas purchasing
- Monetise the terminal on the basis of savings to franchise consumers – the simplest of which to realise is based on making backup to the existing gas supply cheaper
- Open the door for the various private sector entities to contract for terminal capacity on an open and transparent basis

LNG terminal in Batangas to back-up Malampaya with balance of capacity for market

- Recognised case for Government action to solve market failures in providing Malampaya backup
- Structure transaction around FSRU terminal as least cost option
  - Providers can be found through a tender process
- Implement in phases
  - Test strength of market demand with open season
  - If lost, revisit options for integrating LNG import with power sector
- Benefits are largely neutral to outcome of EWC in Pagbilao
- Potentially replicable in Mindanao
  - Terminal capacity in Mindanao could be used to break-bulk to Mindanao
  - Terminal technical specifications would have to include option for small ship loading

There are three possible sites for LNG terminal connecting directly to Malampaya



- All plants can be backed up if gas is injected at any point in the existing system
- Sta Rita would require co-operation from First Gas
- Tabangao would require co-operation from SPEX
- Ilijan is a fall back option as it is essentially Government controlled

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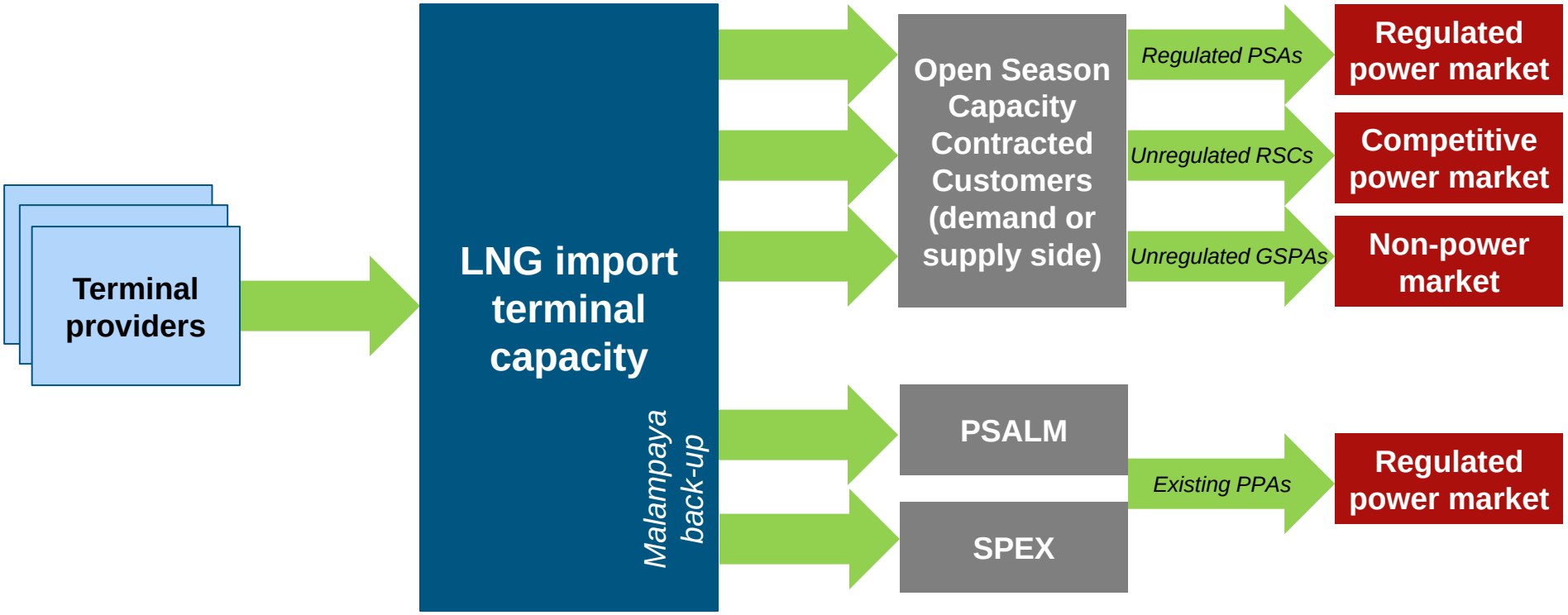
Schematically, the structure is as follows



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The FSRU would be owned by the private sector

- The Government role is one of facilitation only
  - Firstly to put in place the necessary structures to allow the cost of the backup to be recovered from electricity consumers
  - Secondly to run the first part of the open season and the tender to attract the best terminal

- All the contracts are private sector (except any with PSALM for backup of Ilijan)

Transaction Flow: Malampaya Backup plus Open Season

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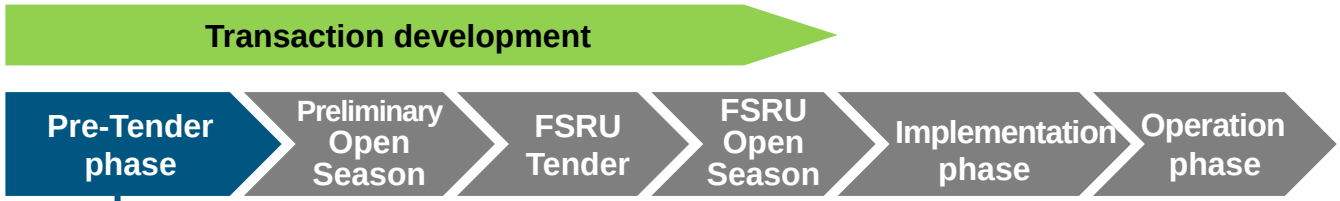
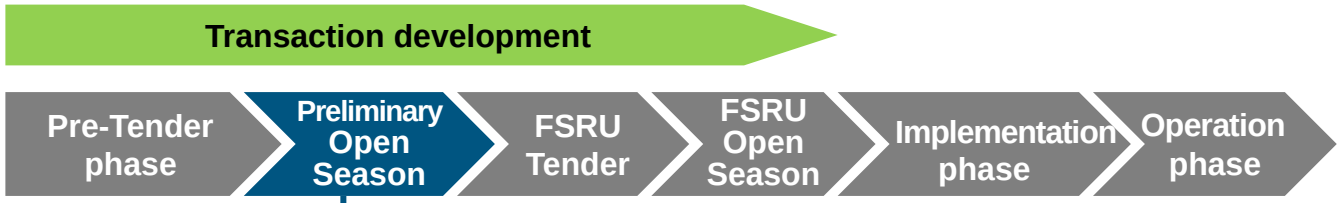
Transaction Flow: Malampaya Backup plus Open Season (2 of 7)



- Determine Government policies & convening power
- Assess Government-owned or -influenced assets to include as part of transaction
- Meet private sector stakeholders to agree their participation, if any
- Agree the form of the backup contract and how costs are passed to consumers
- Select transaction principal and advisors
- Discuss Preliminary Open Season with potential FSRU providers to gain process buy-in
- Gain any necessary consents / approvals

Transaction Flow: Malampaya Backup plus Open Season (3 of 7)



Marketing Phase

- Marketing the Open Season to attract Interested Parties
- Duration of about a month
- Gives Interested Parties time to review the process and decide on strategy prior to the formal start

Due Diligence

- Formally starts with Open Season Notice, which includes:
  - Start/end dates
  - How to offer
  - Technical characteristics of the FSRU to be tendered
  - Contract types, duration
  - Expected tariff or methodology
  - How the terminal will be regulated

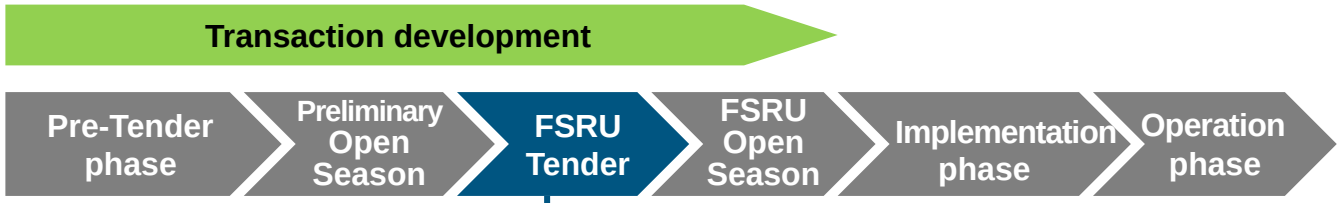
Offer Submission

- Participants submit non-binding offers for amount and type of capacity
- Participants submit comments on better options for start date and duration etc.
- Offers are collated for use in the FSRU Tender

The Result of the Preliminary Open Season feed into the FRSU Tender

- The outcome of the Preliminary Open Season will be the indicative amount and type of capacity (throughput, storage, contract duration, firmness) each Interested Party would like for each FSRU option under consideration.
- Comments on any modifications to the proposal that would better accommodate their needs; including at a minimum modifications regarding:
  - the date of commencement of service;
  - the service duration (in years; long term/short term);
  - the types of services on offer (firm/interruptible services); and
  - the intake and offtake points.
- This information is then an input into the FSRU Tender process.

Transaction Flow: Malampaya Backup plus Open Season (4 of 7)



Bidder qualification

- Ensures Eligible Bidders are legally, technically and financially able to deliver objectives

Bidder Due Diligence

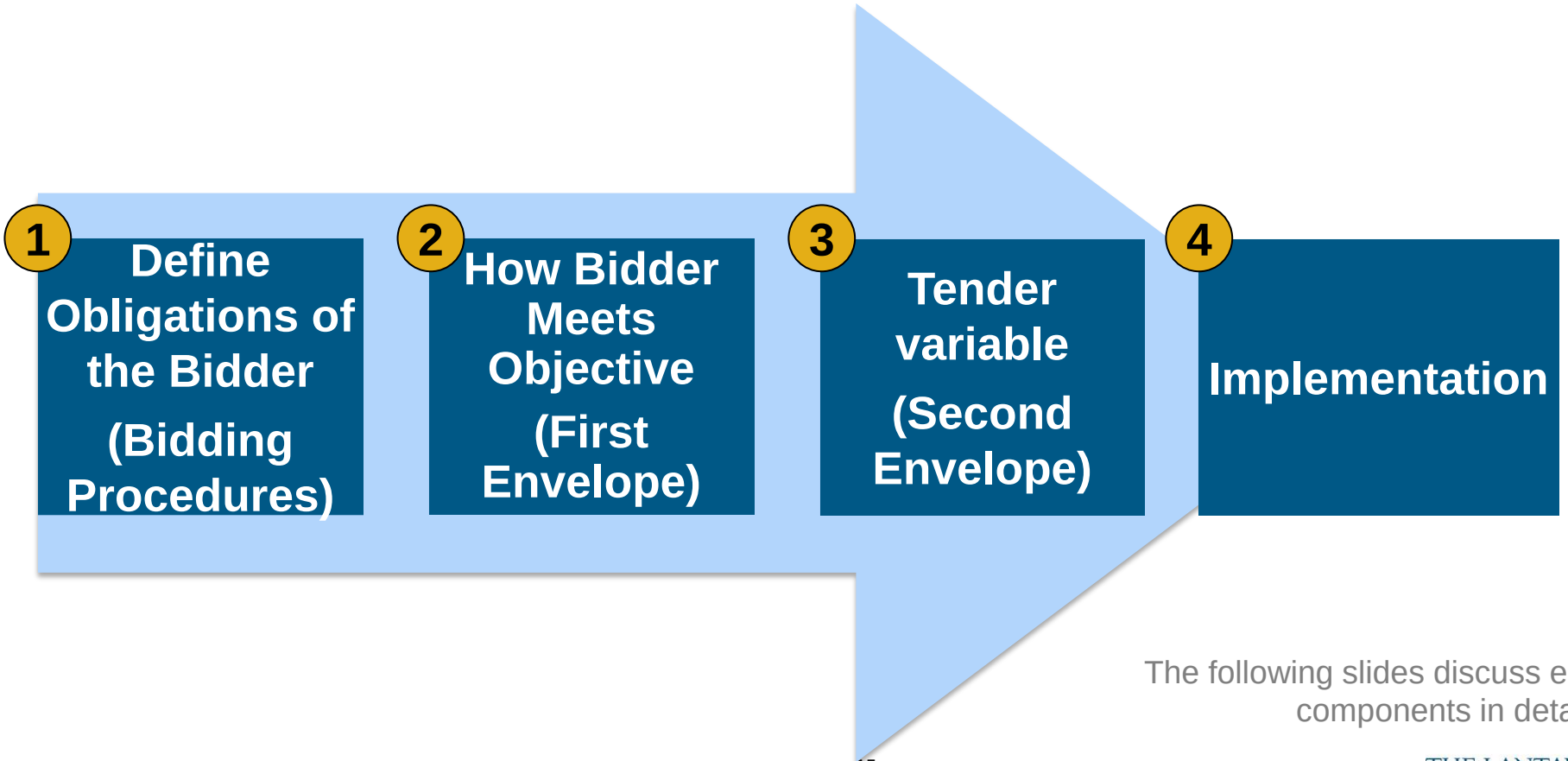
- Tender Documents describe (amongst other things):
  - Location of FSRU
  - Minimum size and minimum technical characteristics of the FSRU
  - Technical details of the site
  - What products will need to be delivered
  - Outline of the commercial terms

Bid Evaluation

- Two stage evaluation: Technical and Financial
- Possible Financial parameters for evaluation include:
  - Total cost
  - Annual rental cost
  - Average terminal throughput charge per mmbtu of gas
  - Average capacity charge per unit of capacity allocated
  - Charge for Backup Service

FSRU Tender would be run similar to other Government Tender Processes by advisors

- Prepare the FSRU Tender including details of what is on offer (Backup Contract) and what the obligations of the winning bidder will be
- Run the Tender and choose a Terminal (FSRU) Provider and Operator



The following slides discuss each of these components in detail

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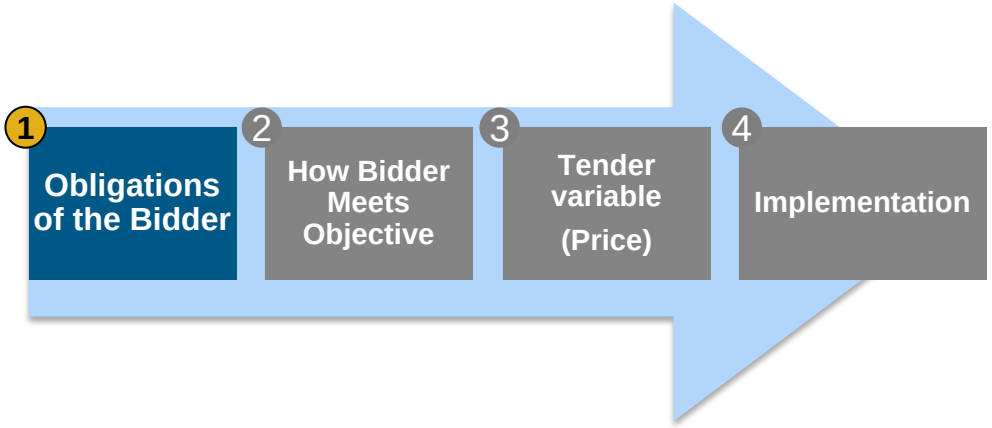
Phase 1 of Tender: Obligations of the Bidder – this is the contract where the DOE defines what it wants out of the tender



A contract needs to be developed to set out all the obligations of the Bidder, so that the overall Objective is achieved. The obligations should be framed as broadly as possible to enable maximum participation

- Specification of the quality of gas injected
- Minimum specifications for MMBTU per hour injected into system (to power existing stations)
- Location of injection point
- Maximum Terminal Charge allowed to be charged
- Terminal must be Open Access
- Option for Malampaya (or Power Stations) to use terminal for 1 month per annum at agreed charge
- Performance Bond and Bid Security
- Approach potential customers for the project

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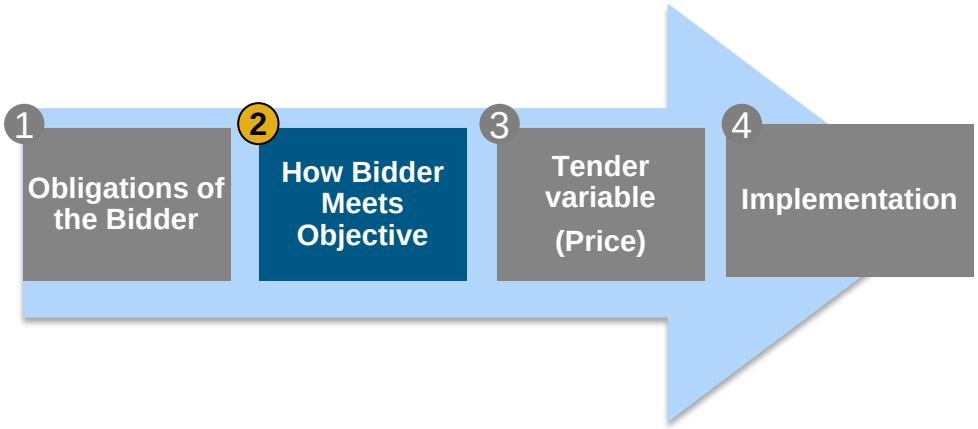
Phase 1 is also where the DOE sets out what's in it for the Bidders

- Details of the Backup Contract
- Details from the Preliminary Open Season of who wants to contract for terminal capacity
- Details of the future demand for gas in Philippines including the Mindanao option to come later

Phase 2 of Tender: How Bidder Meets Objective



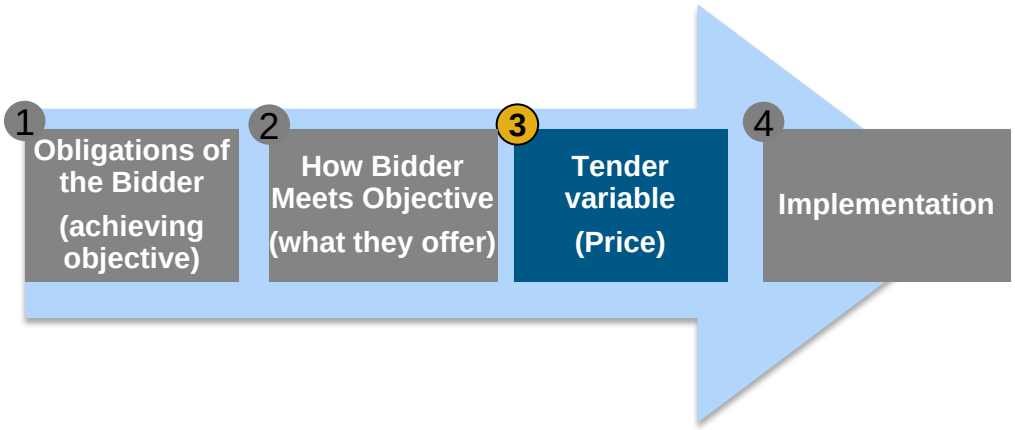
This is where the Bidder submits the first round of the tender, giving all the details of what they are prepared to offer and showing supporting information about the project and the Bidder

This would be evaluated on pass/fail – that is, if the proposed project is scored as being technically, environmentally and financially capable of meeting the objective, it passes

- Detailed description of the project proposed and why it is feasible
- Details of site and options on land
- Detailed Financial modelling and commercial evaluation
- Plan for how environmental requirements are met
- Infrastructure Performance Specifications
- Identify technical & operational characteristics/parameters of infrastructure (terminal and/or pipeline)
- Details on proponent management skills & financing

- How they will prepare, negotiate, execute PSA with offtakers
- Information on gas suppliers if these add value
- Identify applicable permits, licenses, clearances, etc. required
- Show commitment to EPC and O&M etc.

Phase 3 of Tender: Defining the winner



Price for the Backup Service

This is where the Bidder submits the Financial Component of the Bid.

Least-cost wins

Note: aligns the interests of the regulated customer base to least cost while giving the private sector maximum flexibility to use the rest of the terminal. This assumes there is no explicit regulation of terminal charges (as there is none at present) and that none is introduced..

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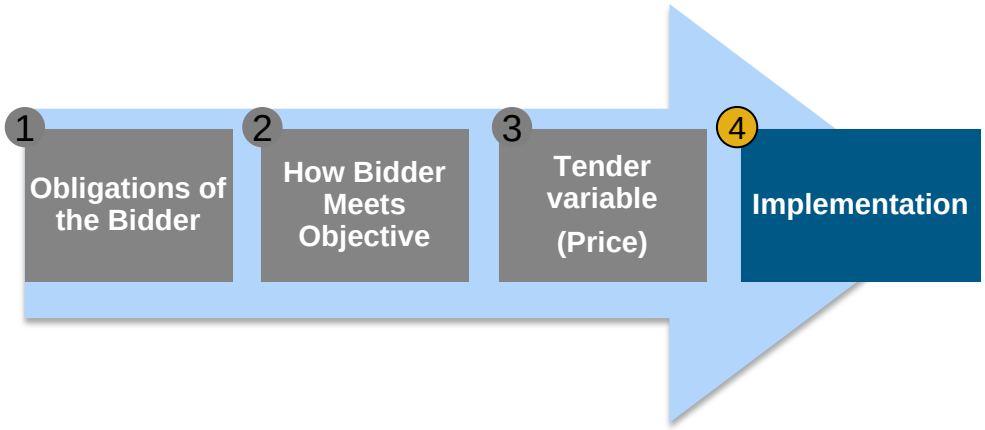
Phase 4 of Tender: Finalising the Transaction

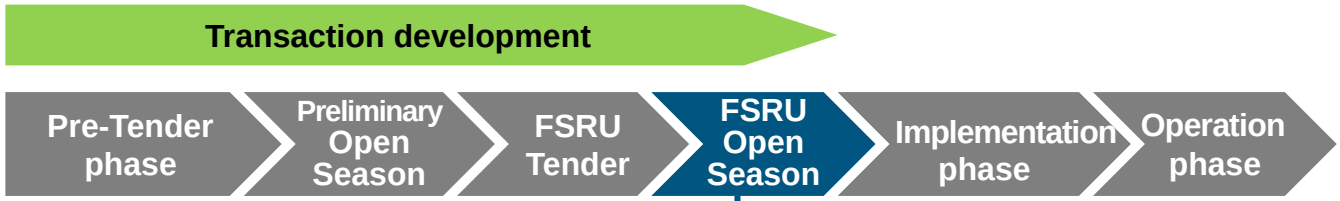


Revenue from the Backup Service forms part of the income for the FSRU

The rest of the income comes from sales to the private sector, but finishing the Open Season

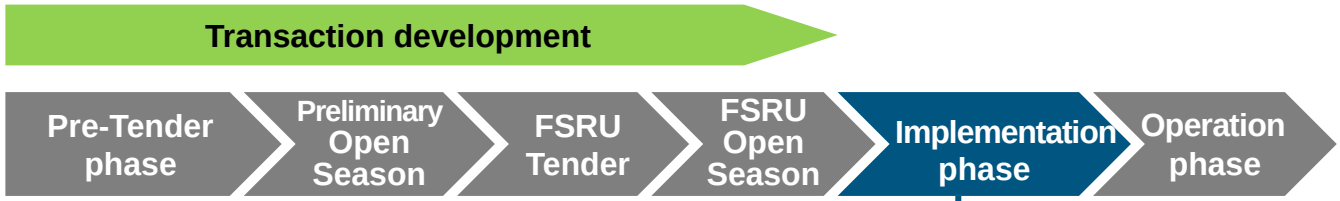
- Subject to the FSRU following any requirements laid down in the Facilitation Agreement (such as the requirement for transparent dealing and Open Access), they are free to finalise the Open Season as they see fit

Transaction Flow: Malampaya Backup plus Open Season (5 of 7)



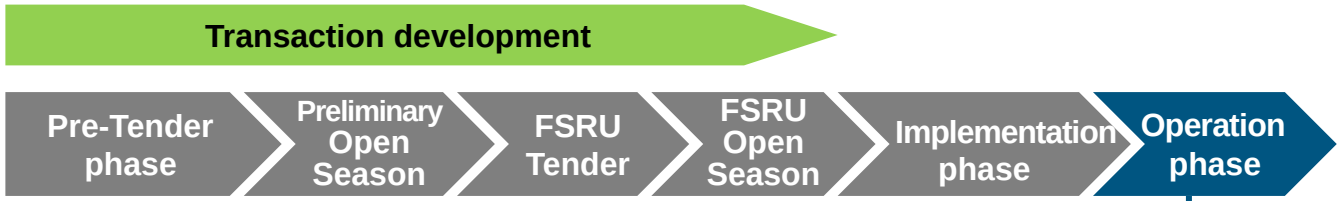
- Selected FSRU Provider runs the Firm Open Season with aim of contracting with parties willing to commit to pay for terminal capacity
- Primarily a private sector activity
- FSRU Provider would carry out the process in the way that it deems appropriate
- Following a successful Firm Open Season, the FSRU Provider would move to achieve Financial Close
- FSRU Provider would be required to operate and maintain the terminal in accordance with the provisions of the agreements that are part of the FSRU Tender process with the objective of managing the business and growing the gas business in Philippines

Transaction Flow: Malampaya Backup plus Open Season (6 of 7)



- Starts with Financial Close of the LNG terminal project
- FSRU commissioned by the supplier selected in the FSRU tender

Transaction Flow: Malampaya Backup plus Open Season (7 of 7)



- Operate and maintain the terminal in accordance with the provisions of the agreements
- Manage the business with the objective of growing the gas business in Philippine

Mindanao

- Following a successful FSRU Tender in Luzon, we would recommend commencing a similar process in Mindanao.
- The reason for carrying out Mindanao second is that break bulking from Luzon to Mindanao may be an economic way to deliver the amount of gas required for the Mindanao market and having a Luzon terminal locked in place first should assist this process.
- The steps in Mindanao would be the same as for Luzon, with obvious differences in the Pre Tender Phase where different government assets, entities and contracts would need to be developed.

A key question for Mindanao is “what is the prize”?

- In Luzon, the Backup Service contract should be enough to underpin enough of a terminal result in a successful process. This does not exist in Mindanao.
- DOE could require oil-fired plants to convert to LNG or offer a similar contract to the Backup Service to incentivise the terminal, recovered from all the electricity customers in Mindanao.
  - However, the economic arguments for this are weak, particularly given the newly committed coal fired capacity has been developed since the previous study identified a role for gas in the Mindanao market.
- However, a sufficient package of benefits could include, for example:
  - A site (such as the PSALM site identified by Petroleum Brunei);
  - Changes to the way the Government-owned hydros are contracted (to economically “make room” for gas or other baseload fuels); and
  - Policies to require oil plants to convert to LNG should it become available.
  - If the process fails it will highlight that there is not an economic case for gas in Mindanao, even with the benefit of a larger terminal in Luzon that could lower overall costs.

Policy instruments needed by Government to enable the private sector

General market development

- Facilitation strategy: Education and capacity building
- Regulatory strategy: Clear guidance on how to review and approve oil to LNG conversions and mid-merit plant

Specific development of terminal infrastructure

- Issue policies to require LNG use as backup to Malampaya
- Issue policies to facilitate diesel to LNG conversions
- Facilitate an Open Season for a new terminal
- Choose an FSRU provider to provide backup capacity and additional capacity for the private sector

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