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KUDU POWER PROJECT

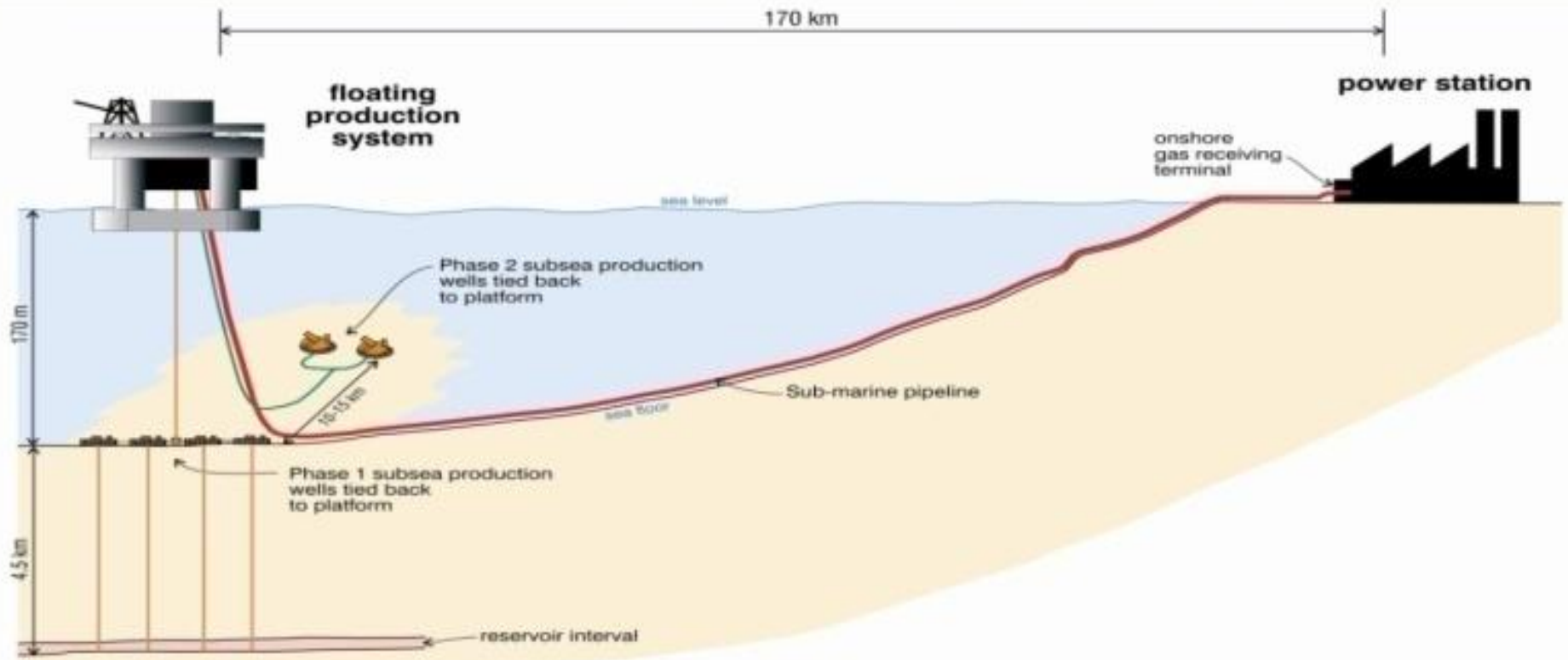
HIGH-LEVEL PROJECT UPDATE

June 2015

Illustration of Upstream – Downstream integration



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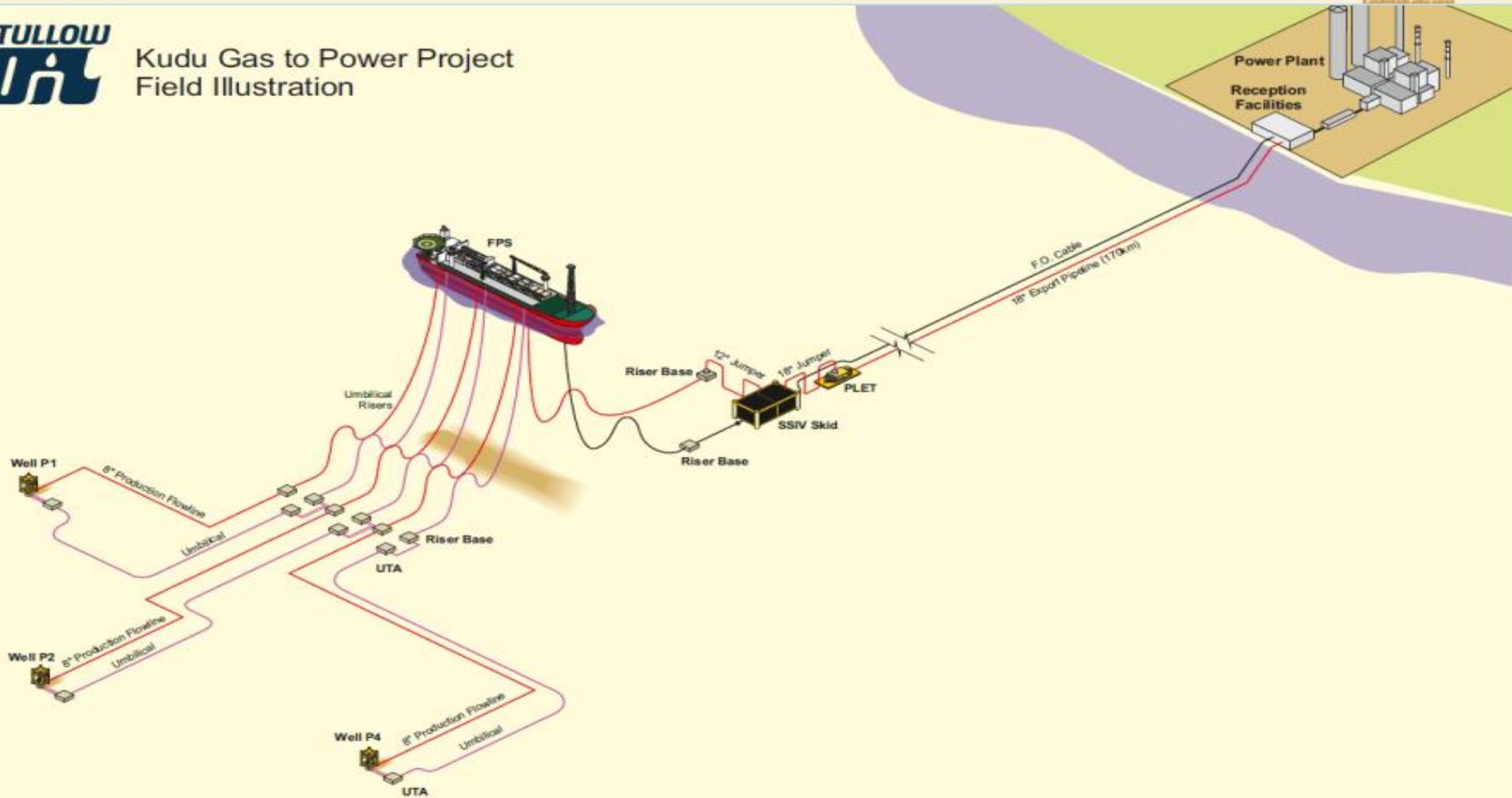
November 2004 NDU/DEVL SCHEMATIC FPS & COP

Illustration of Upstream infrastructure

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Kudu Gas to Power Project
Field Illustration



Powering the Nation and Beyond

Confidential

Kudu Project History

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2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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Nov 06
Eskom
withdraws
from PPA

Nov 07
Eskom
withdraws
from gas

Project
reverts to
800MW
power
project

May 11
Gazprom
fails to meet
deadline &
Withdraws

Oct 11
Petroleum
Ag.
signed

Nov 12
Joint Op.
Ag.
signed

FEED

Sub-sea, FPS EPC
Shortlisted

Sep14
NACC
Approval

Apr 07
Itochu
20%
farm in

Apr 08
Tullow
introduces
CNG
concept

Feb 09
Tullow
proposes
CNG

Aug 09
Production
Licence 002

Oct 11
Production
Licence 003

Mar 13
Project
Development
Ag.
signed

Feb 14
KP/CEC Joint
Development
Ag.
signed

Oct 14
Tullow
Withdraws

Feb 07
Heja Lodge
Mtg
Eskom, Tullow,
Namcor,
PetroSA

Jul 07
PetroSA
withdraws

Aug 09
CNG
Termsheets
signed

PXA HoT
signed

March 15
GRN Agrees
to Kudu
Support
Package

Mar– Jul 07
Export Gas
Pipeline
study

Kudu Options
Study (KPS
size)

Upstream-
Downstream
Technical
Integration
Studies

NP & Eskom
conduct joint
Tx studies

KuduPower
EPC, O&M,
SEI, MLA
Bidders
Shortlisted



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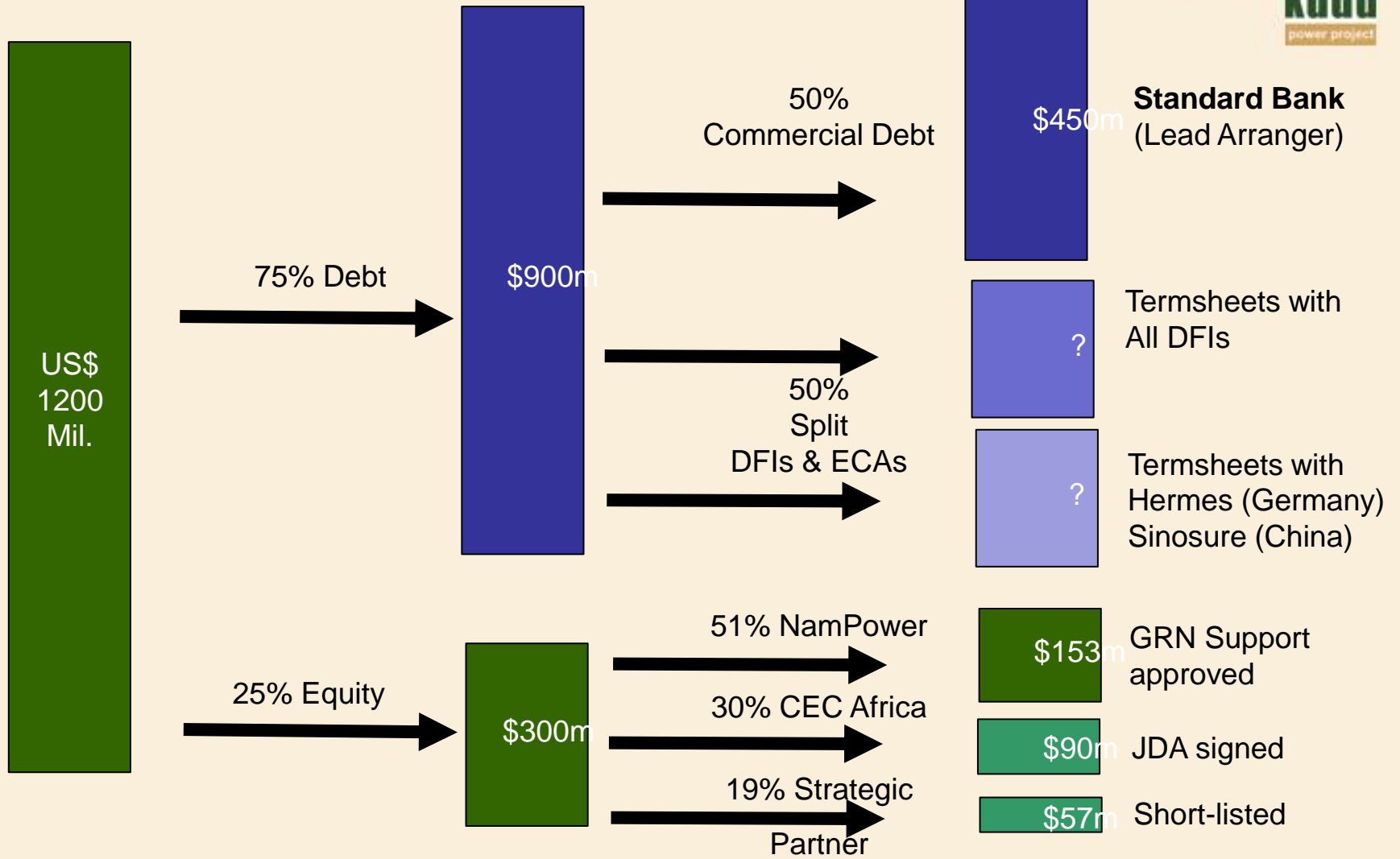
Key Facts about the Kudu Power Project



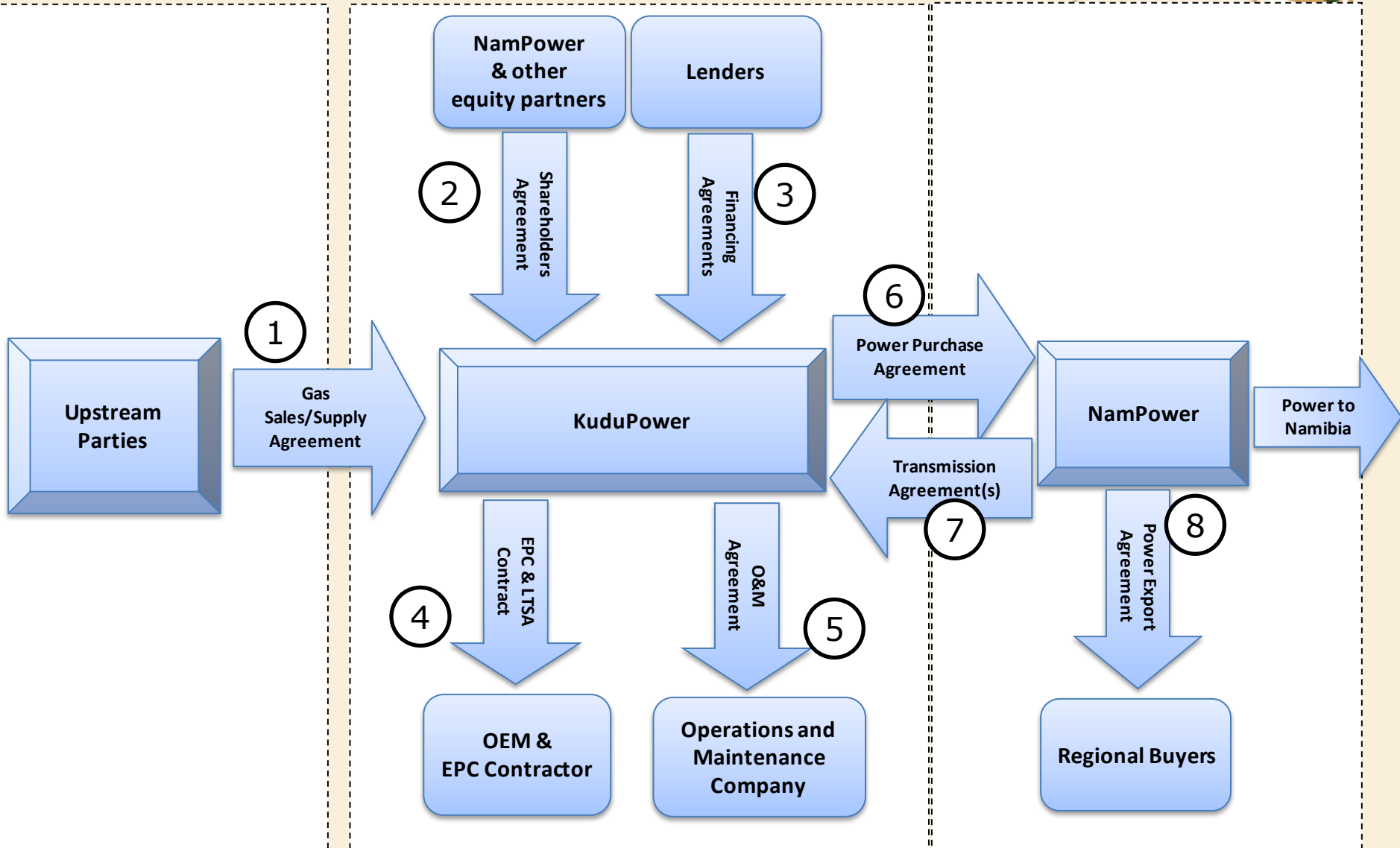
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❖ Ownership	NamPower, CEC, SEI
❖ Location	
➤ Power Station	Oranjemund
➤ Gas Field	Offshore (170km)
❖ Lead Developer	NamPower (51%)
❖ Technology	CCGT (F-Class)
❖ Offered Output	2 x 442.5 = 885MW
❖ Preferred EPC & OEM	Shanghai Electric & Siemens (LTSA)
❖ Reserve EPC & OEM	Posco & Sumitomo, MHPS
❖ MLA	Standard Bank
❖ Main Power Off-Taker	NamPower
❖ Secondary Off-Takers	CEC Plc & Eskom
❖ Generation License	application submitted to ECB (approval by end of May 2015)
❖ GRN Support	approved in March 2015

Power Station Project Cost & Funding

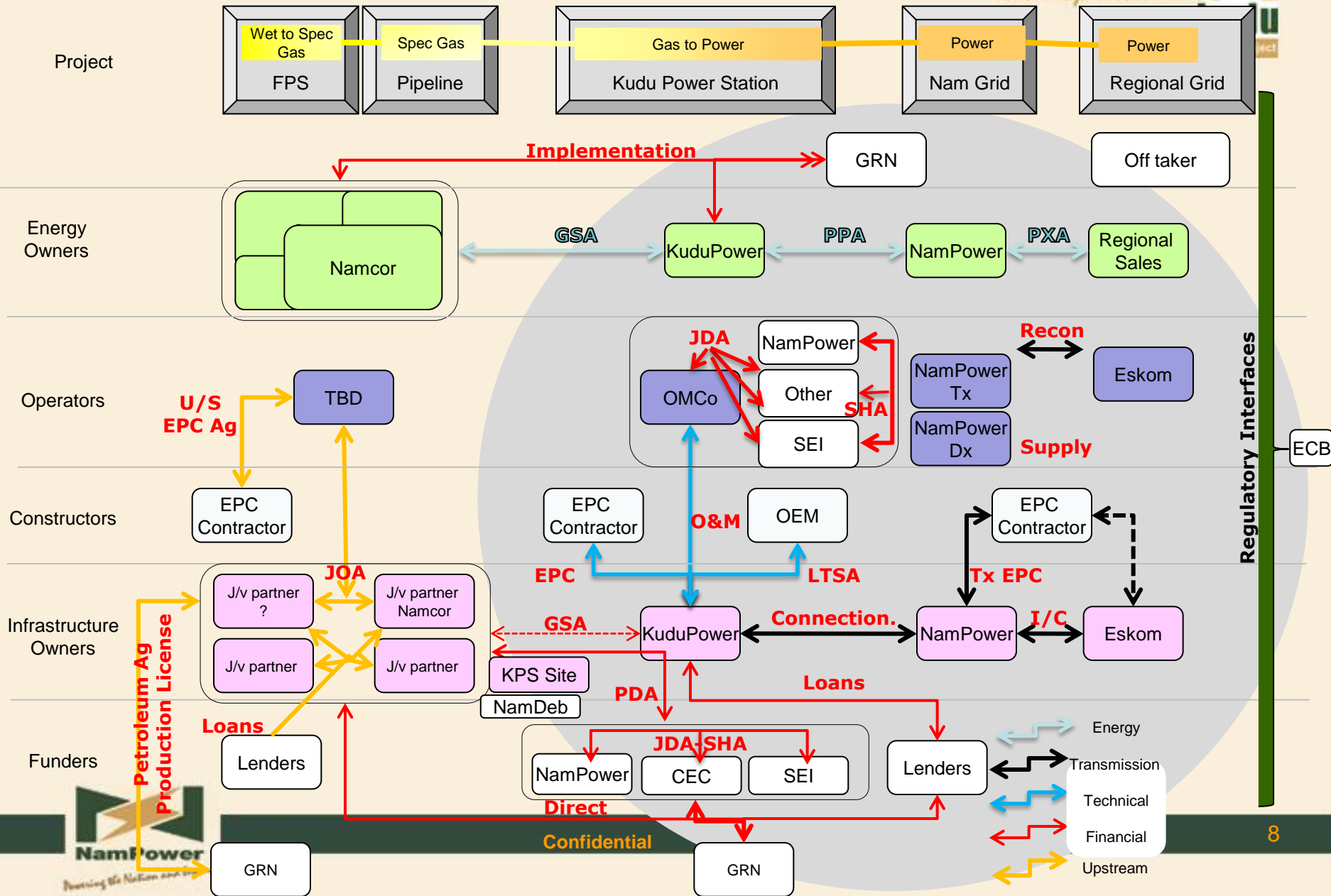


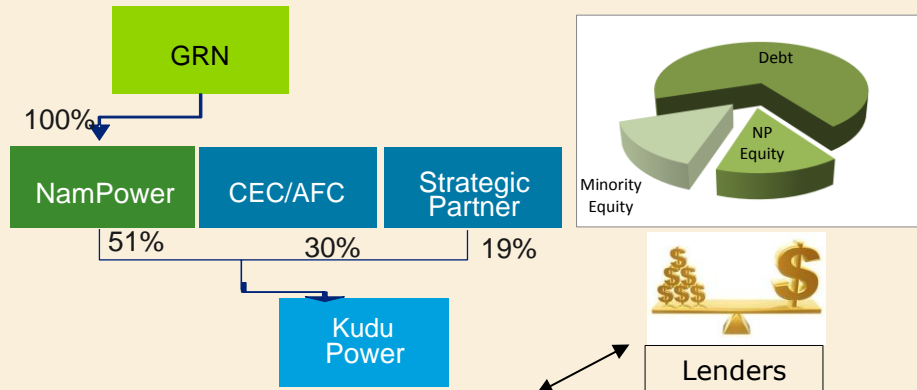
Kudu Project Commercial Arrangements



Required Project Relationships & Agreements

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Namibia

Zambia / South Africa



Upstream Project
Kudu Offshore Gas field

GSA



Downstream Project
Kudu Power Station



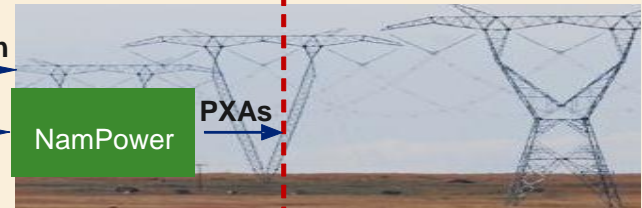
Construction



O&M

Transmission

PPA



NamPower

PXAs

Domestic: 400-500 MW

PXA Offtakers

- CEC 300 MW
- Eskom 100 MW



- 1. Gas Sales Agreement:** A fully termed GSA between KuduPower and the Upstream Partners has been drafted and agreed to the fullest extent possible.
- 2. Power Purchase Agreement:** The PPA between NamPower and KuduPower has been drafted and key terms agreed.
- 3. The Transmission Connection Agreement (TCA) between NamPower and KuduPower** has been drafted and key terms agreed.
- 4. The Transmission Connection Agreement (TCA)** with Eskom has been drafted. Eskom has commenced with the transmission study for the evacuation of power from Kudu.



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4. Power Export Agreements (PXA) with CEC:

- ✓ CEC Plc expressed interest in to off-take about 300MW from the Kudu Power Station in exchange for 30% equity in the project.
- ✓ The PXA Termsheet with CEC Plc was signed in February 2014,
- ✓ Full PXA negotiations have commenced and are expected to be finalized by July 2015

5. Power Export Agreements with Eskom:

- Interest from Eskom is for 100MW mid-merit/peaking (profiled) power, ZAR-based but with hedging costs incorporated.
- A fully drafted PXA was presented to Eskom in 3rd quarter 2014, but bureaucratic processes are delaying commencement of negotiations.
- MME has initiated a process with the DoE to discuss the IGMOU for the offtake and transmission integration investment in South Africa.

➤ **Mandated Lead Arranger (MLA)**

☞ Standard Bank has been appointed as the Mandated Lead Arranger.

➤ **EPC**

☞ Shanghai Electric Corporation (SEC) in partnership with Siemens AG have been selected as the preferred EPC contractor and Original Equipment Manufacturer (OEM) respectively.

➤ **Operations & Maintenance Operators (O&M)**

☞ Three companies have been shortlisted, and clarifications & negotiations were finalized on 17 June 2015. Selection of preferred bidder in July 2015.

➤ **Strategic Equity Investor**

☞ The preferred and reserve Bidders have been selected, and clarifications & negotiations are underway. This process to be concluded by end July 2015.

Kudu Off-take Supplied to Namibia

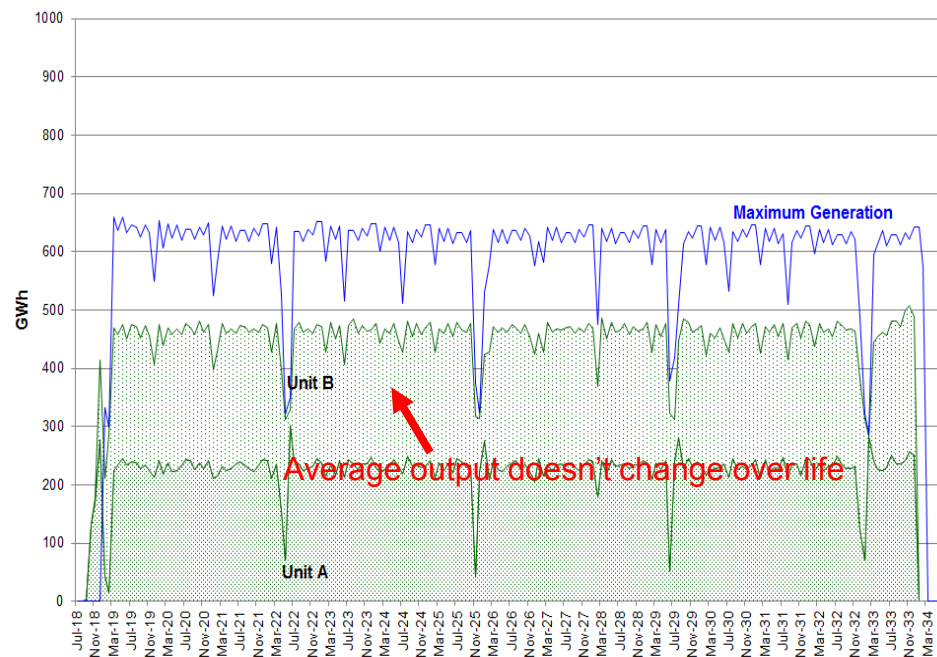


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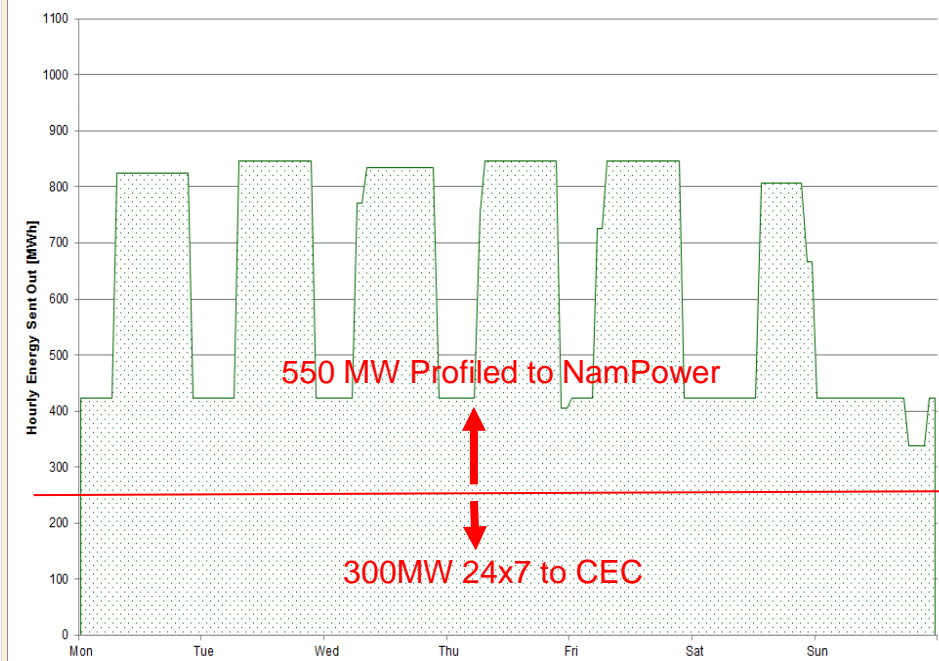
kudu
power project

1. Studies by the Kudu Team & NamPower showed Namibia could take Kudu output if CEC takes 300MW.
2. In the low off-take scenario (high Ruacana flows, low demand growth) KPS would be limited to take-or-pay gas volumes .

KPS Plant Output over Life



Hourly Generation in Week 20, 2021



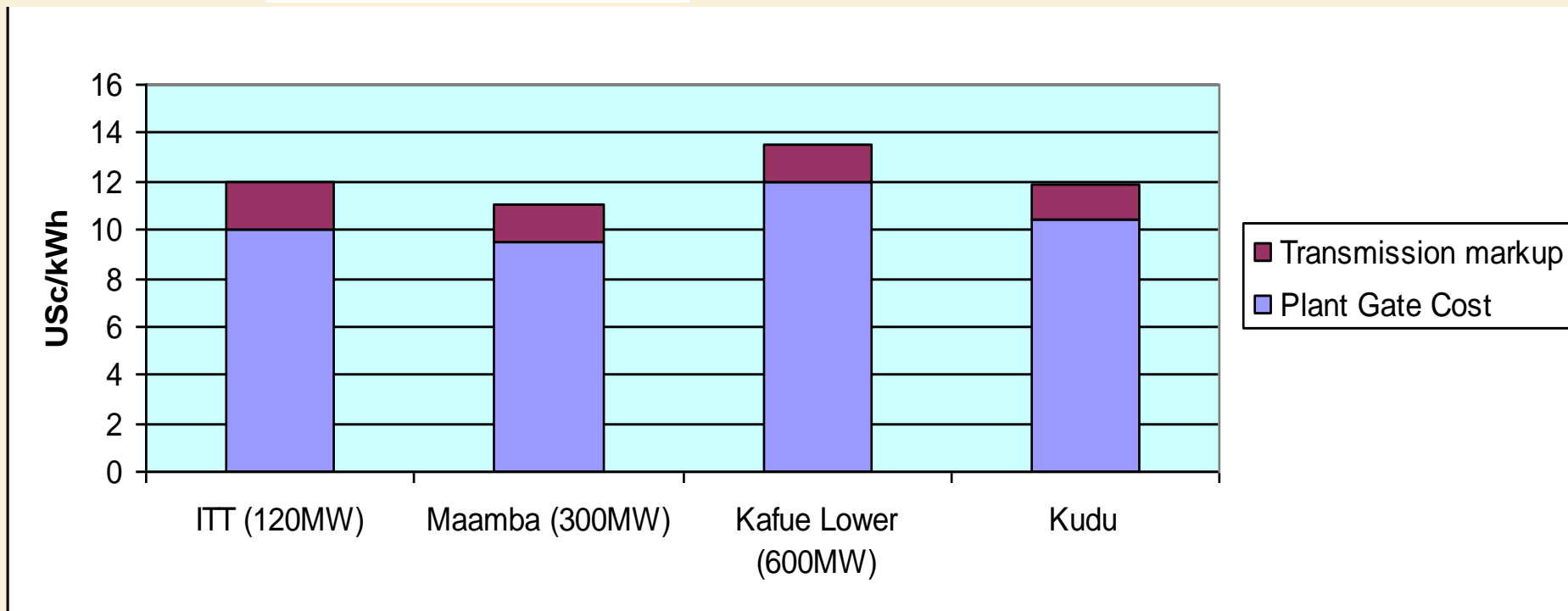
Regional competitiveness

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Kudu tariff very competitive against any regional project (new build)

Indicative 2015 Tariffs



Source Copperbelt Energy Corporation: 2011



Omatando strengthening
Ph 1: 2013/2014 Angola
Ph 2: 2016/2017

Masivi Shitemo 132kV
2015/2016

Transmission expansion within Namibia (including connection to Kudu)

Gerus Otjikoto 400kV
(Operate at 220kV)
2015/2016

Auas Gerus 400kV
2017/2018

Caprivi Link Bipole
Auas Omburu Gerus 400kV
, >2019

West Coast strengthening
2014/2015

Kuiseb Walvis Bay 132kV
2015/2016

2nd Auas Kokerboom 400kV
2017/2018

Kudu Transmission
2017/2018

Khurub Aussenkehr 132kV
2015/2016

Legend

- Sub Station
- 66 kV
- 132 kV
- 220 kV
- 330 kV
- 350 kV DC
- 400 kV



Botswana

South Africa



Kudu – Eskom Transmission integration



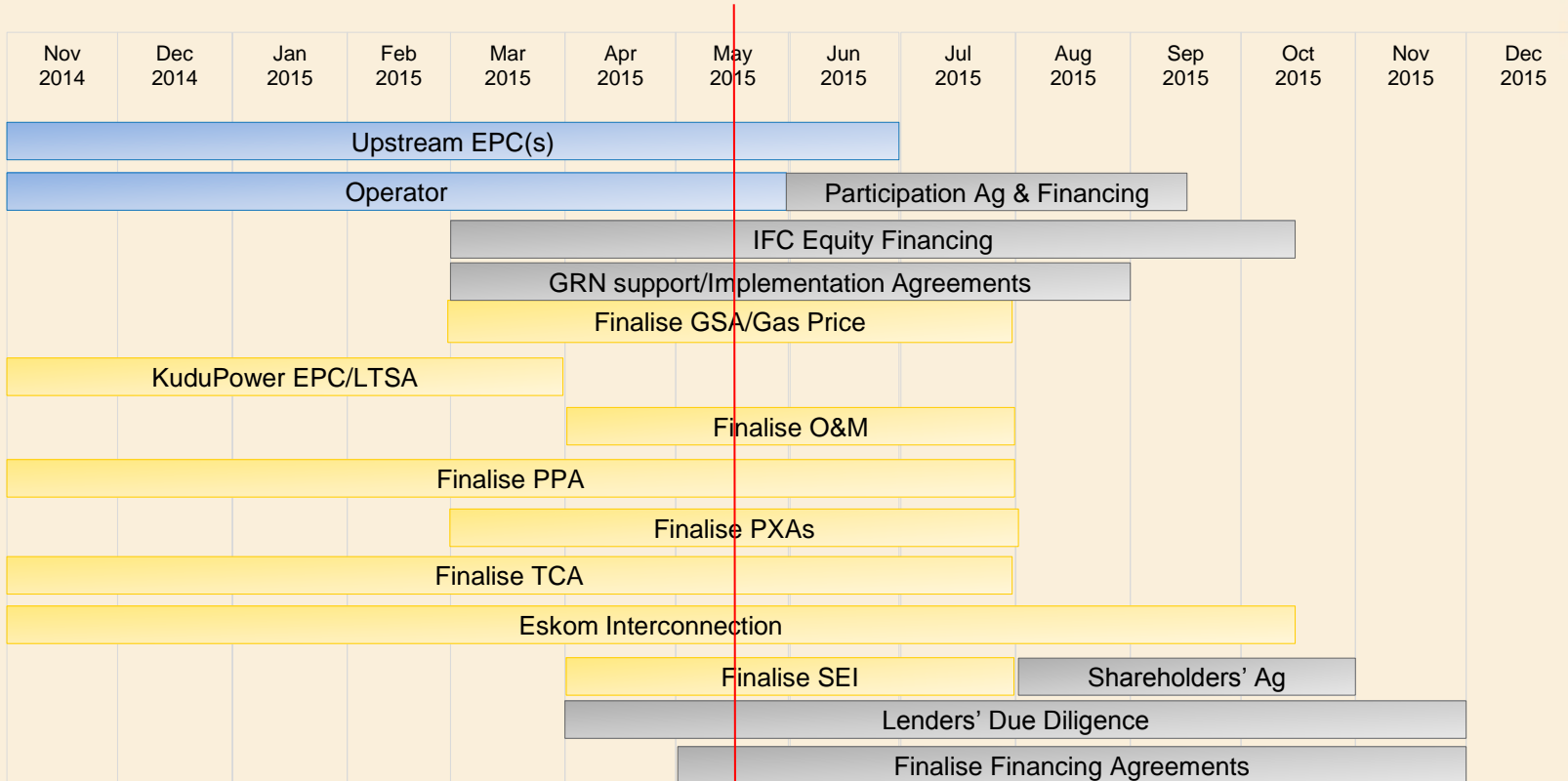
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Kudu Project Update : Timelines - Development Phase



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- All technical and commercial contracts are in final stages of negotiation/drafting.
- Time required for Lenders' due diligence is outside NamPower's control, however GRN Support has made the project more attractive and bankable,
- Aggressive timelines have been set for the project, but slippages of up to 3 months will not threaten project completion.

INDICATIVE PROJECT TIMELINES

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- **Conclusion of all agreements** **31 July 2015**
- **Financial Close:** **December 2015**
- **Commencement of construction:** **1st quarter of 2016**
- **Construction Period:** **33 months from FC**
- **Commercial Operations Date (COD):** **1st quarter 2019**

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THANK YOU.