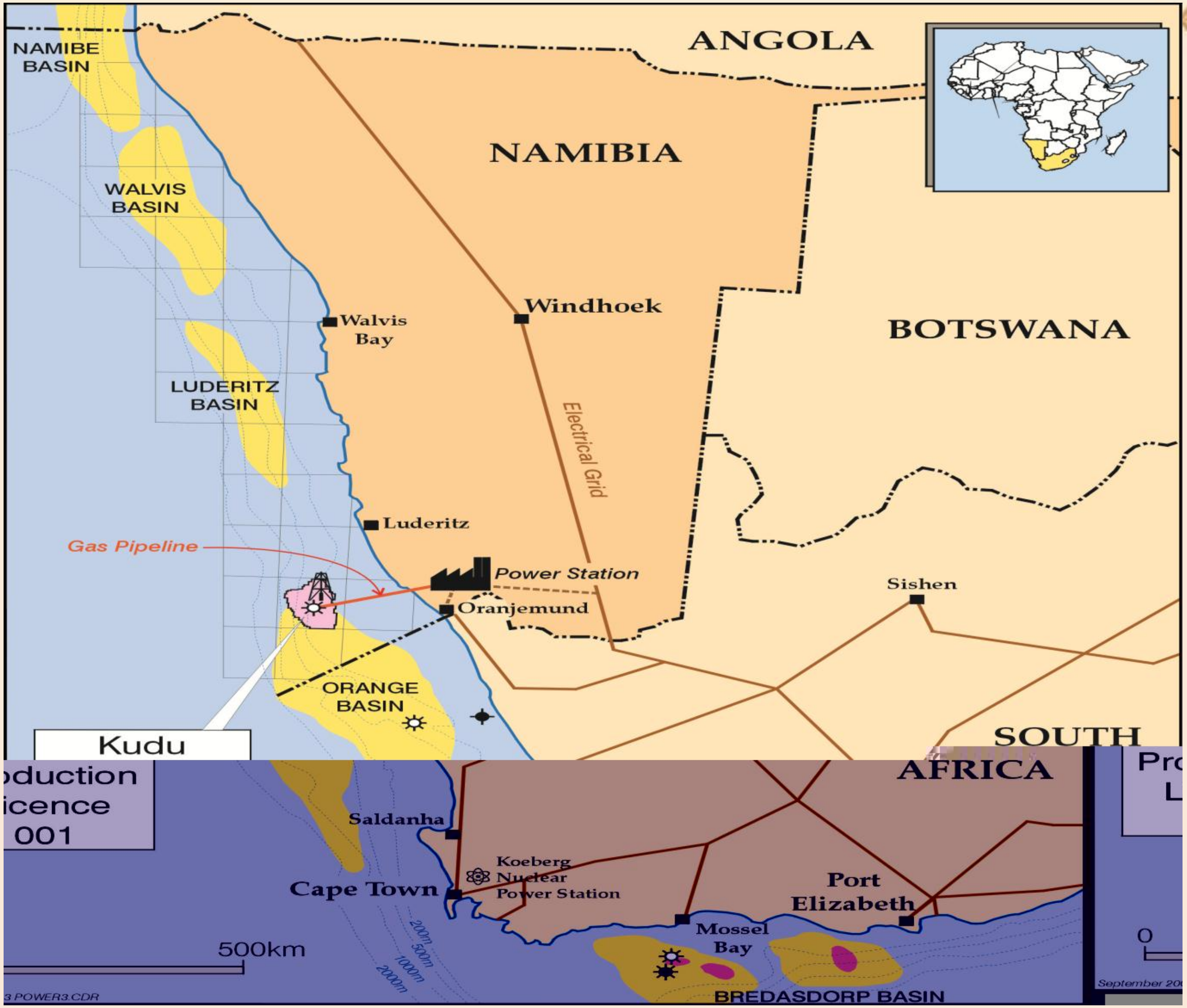
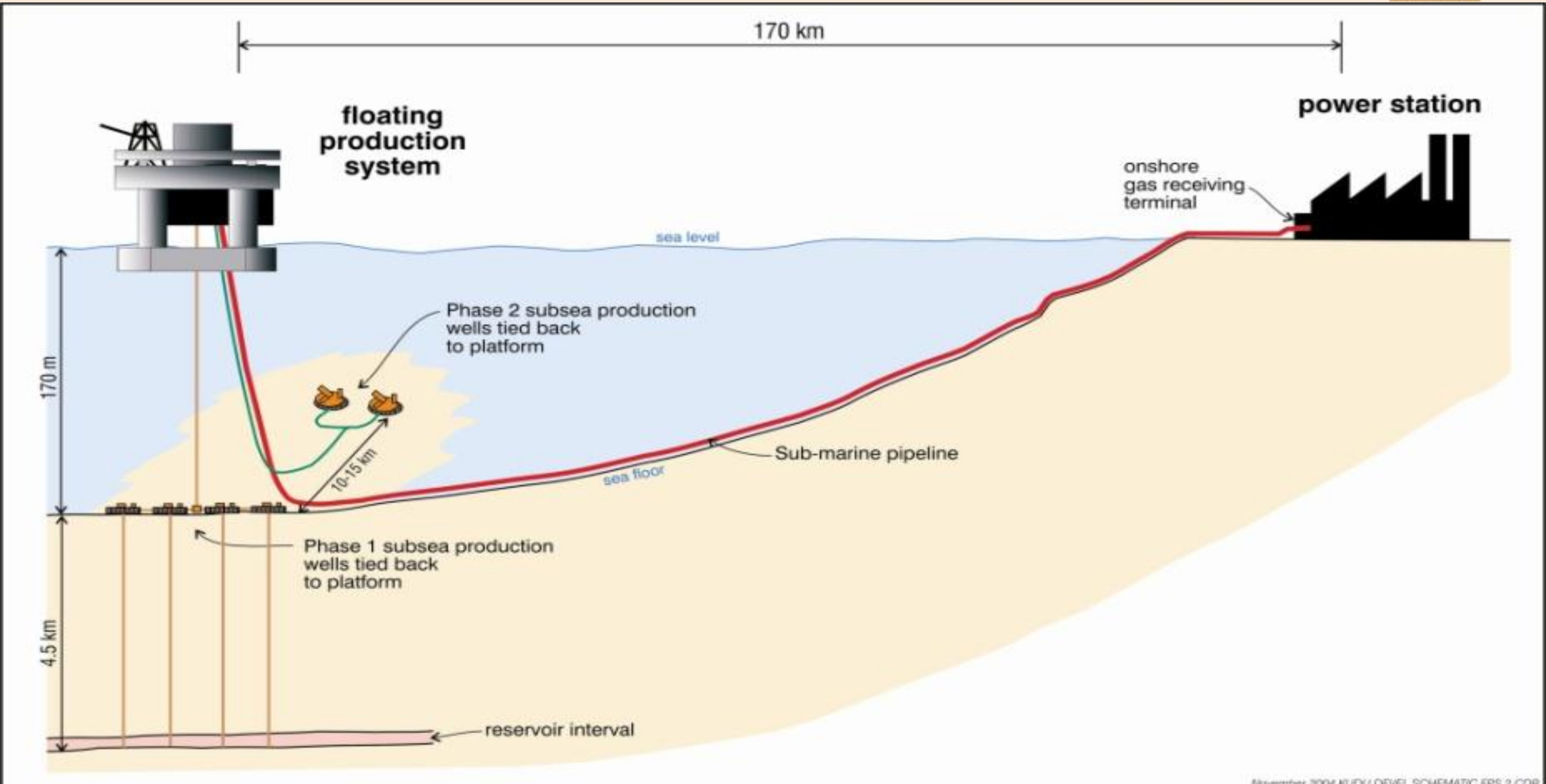

Powering the Nation for 20 years and beyond
Celebrating 20 powerful years of Independence and
20 more towards the realisation of Vision 2030
NamPower
www.nampower.com.na

THE KUDU POWER PROJECT

Location of Kudu Power Station



Gas Field – Power Station scheme



Downstream Structure:

kudupower!

kudu

power project

- **Pow r St t on v op rs/p rtn rs**:
  - NamPower: 51%
  - Strategic Equity Partners: 49%
- **Lo t on o pow r p nt**: Uubvley (25km north of Oranjemund)
- **T no o y**: CCGT
- **Pow r Output:** 800MW (nominal)
- **M n O -t r**: NamPower
- **S on ry o -t rs**: Zambia & South Africa

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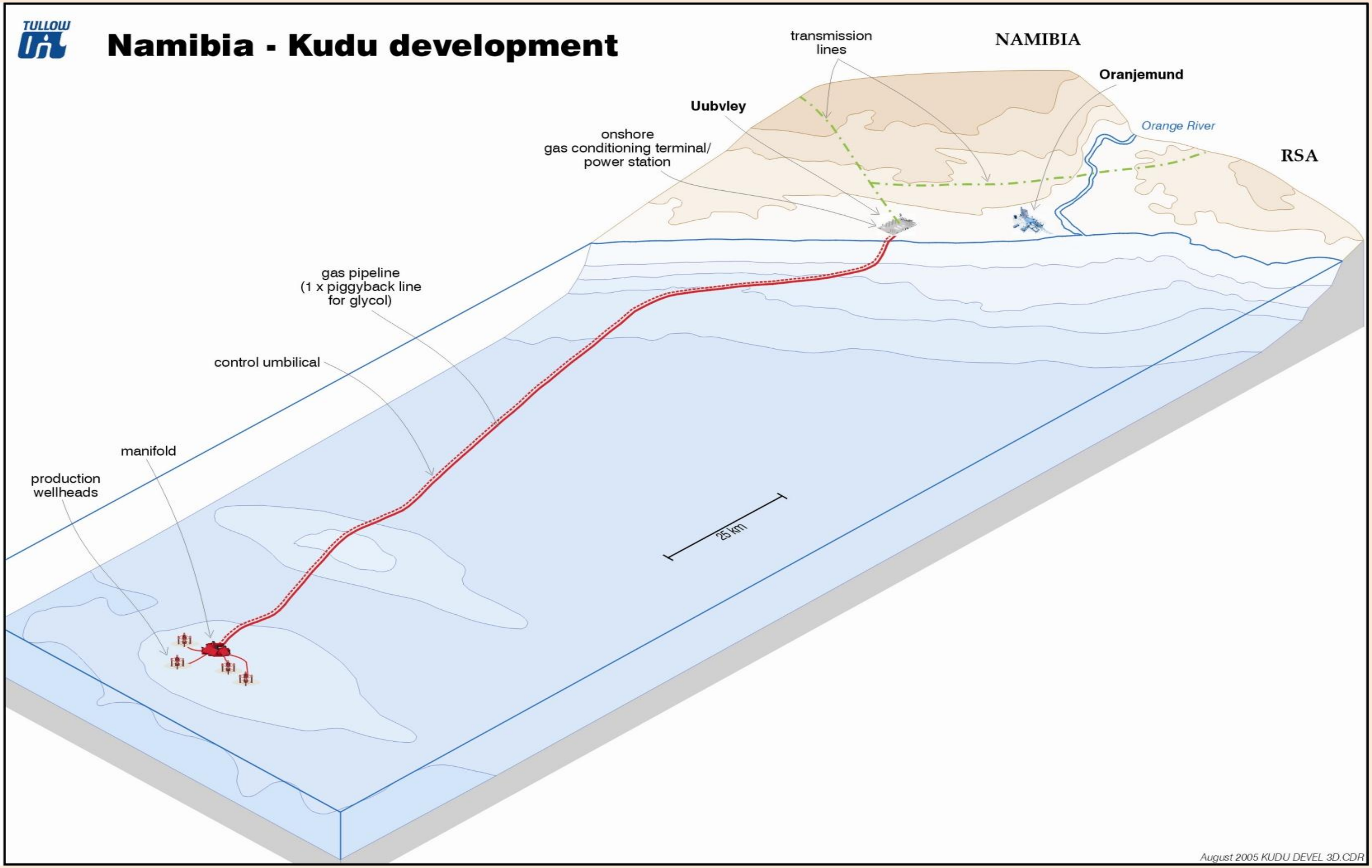
Upstream Structure:

- **Ku u G s F v op rs** (owners):
  - Namcor - 54% (in the process of securing a carry partner)
  - Tullow Oil - 31%
  - ITOCHU - 15%
- **Lo t on o s** : 170km off-shore
- **Prov n r s rv** : - 1.3tcf
- **O -t r o t s**: KuduPower (Pty) Ltd

Upstream project concept



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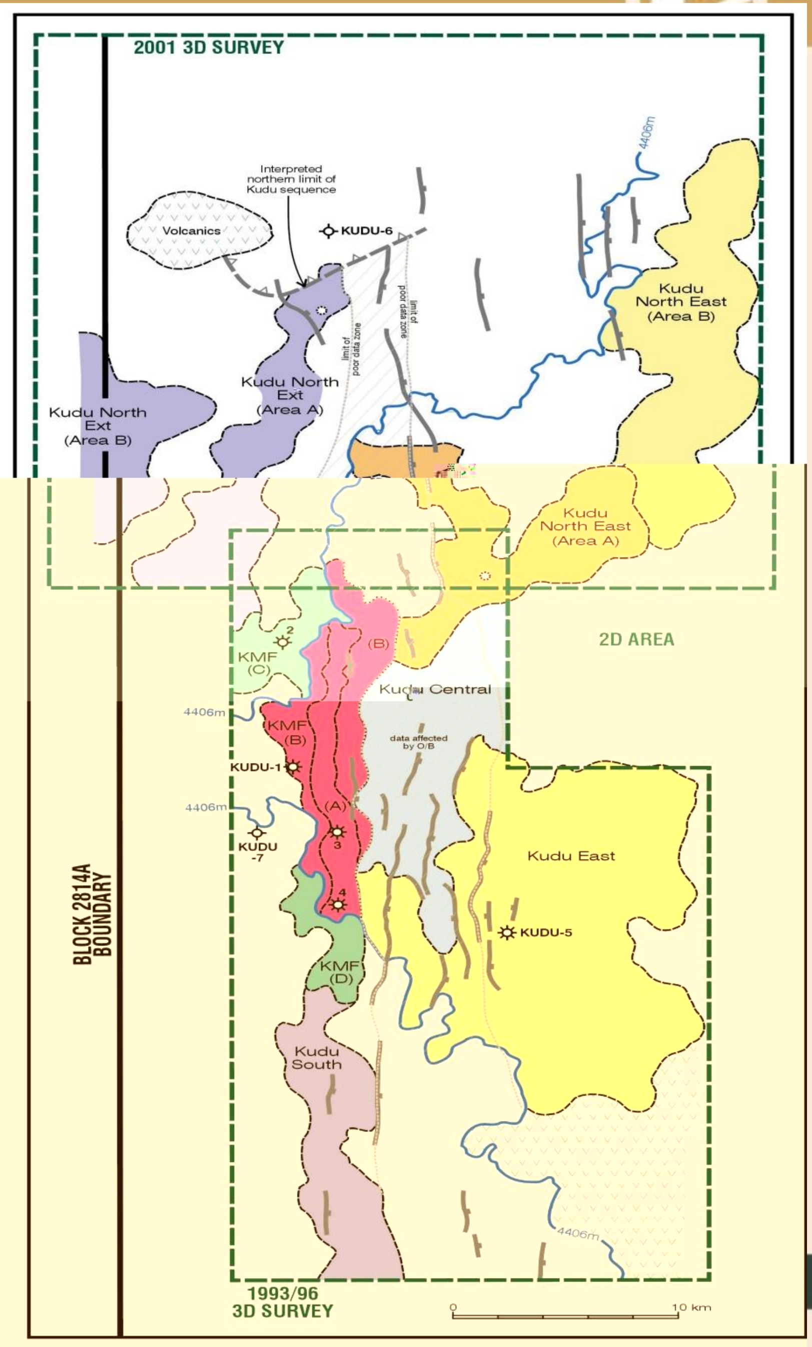
Kudu Gas field reserve & location

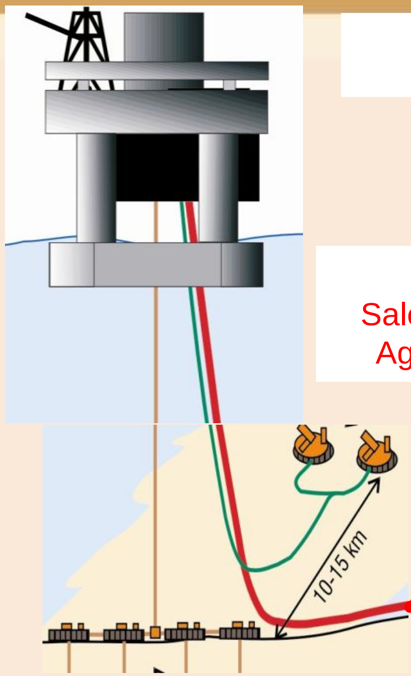
- ❑ Water depth : 170m
- ❑ Reservoir depth 4400m
- ❑ 170km from shore

- ➢ Deterministic GIIP estimates (tscf):

	EA	GCA
➢ Proved	1.38	1.45
➢ Probable	3.28	2.72
➢ Possible	9.92	7.12



KUDU PROJECT SCHEME



Gas Sales/Supply Agreement

Power Purchase Agreements

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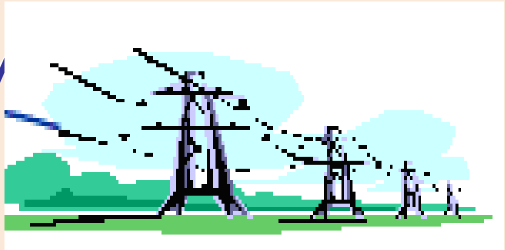
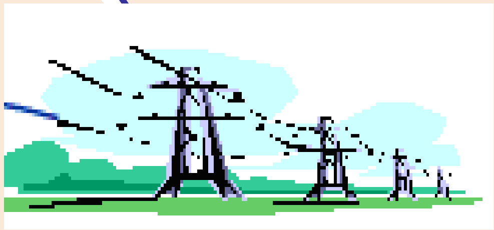
Domestic supply



Power Export Agreements



<u>Upstream</u>

Namcor (54%)
Tullow Oil (31%)
ITOCHU (15%)

<u>Downstream</u>

800 MW CCGT Power Station

KuduPower (Pty) Ltd

(NamPower + Partners)

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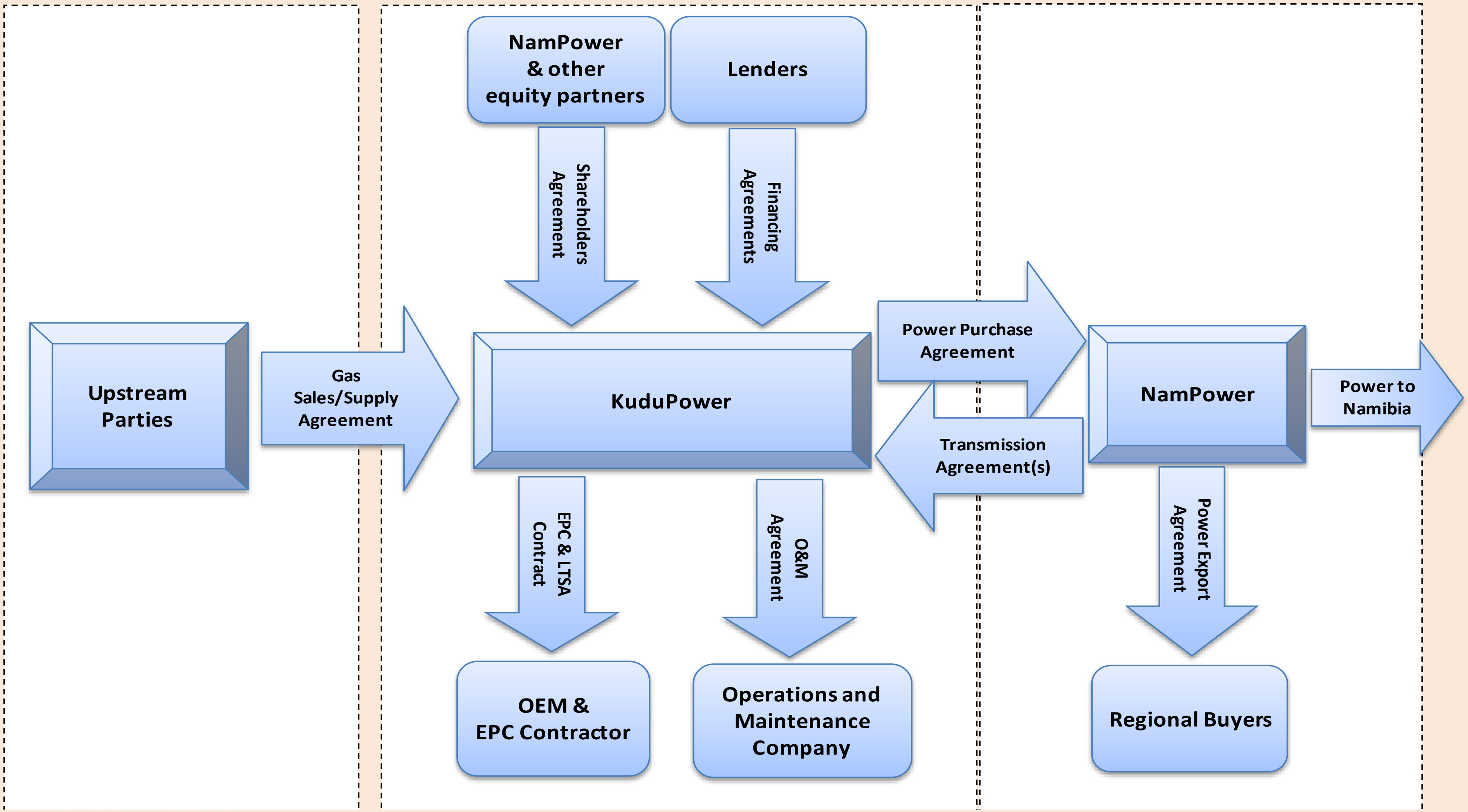
NamPower’s key role in the Kudu Power Project:

Curr nt y ro o N Pow r n t pro t:

- **To r n v op r o t Ku u Pow r St t on,**
- **Busy r n -out 49% qu ty n Ku uPow r to str t p rtn rs,**
- **N Pow r w o -t 800MW ro t Ku u Pow r St t on,**
- **N Pow r w on-s 400MW to r on o -t rs:**
  - CEC to off-take 300MW - negotiations concluded
  - Eskom to off-take 100 – 300MW - negotiations on-going

Kudu commercial structure:

Kudu Project Commercial Arrangements



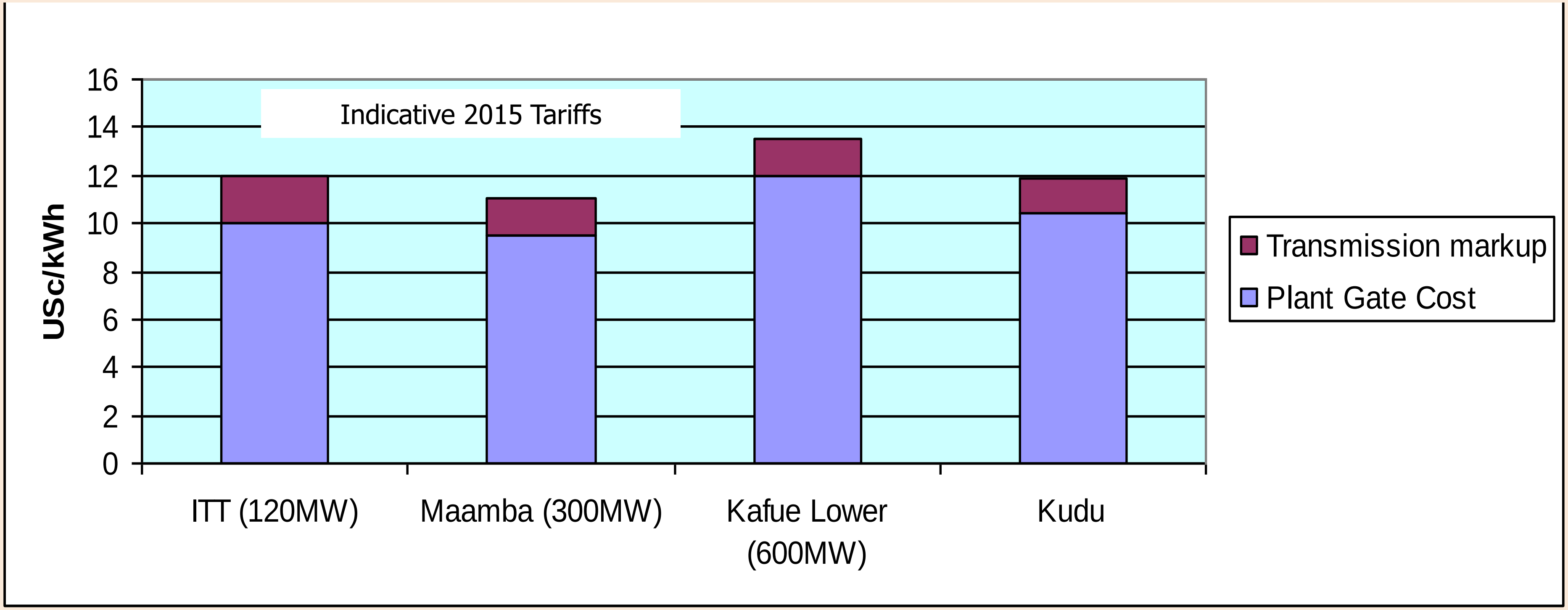
KUDU'S COMPETITIVENESS IN THE REGION

Kudu's regional competitiveness:

- Regional project comparison that was carried out indicates that:
  - ❖ Kudu is forecast to cost approximately US$10 - 11c/kWh which is competitive with any regional new build coming on-stream by 2017/18,
  - ❖ Kudu's technology is **nv ron nt y n** compared to several regional coal projects planned,
  - ❖ it will be the first CCGT power station in the SADC region, and the first CCGT of this size in Africa.

Basic Cost Comparison (Zambian Projects vs. Kudu)

kudupower. kudu power project



Source Copperbelt Energy Corporation: 2011

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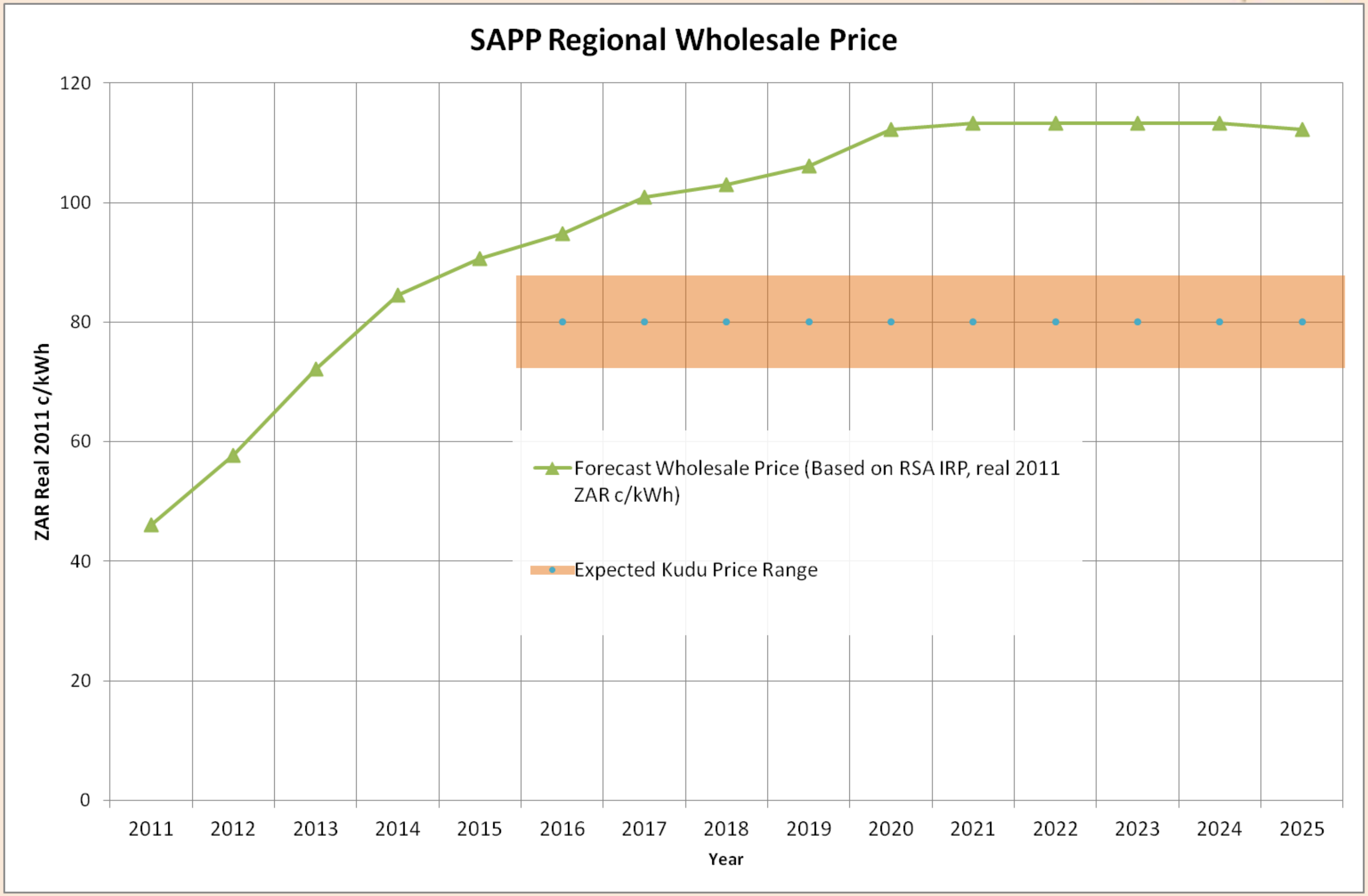
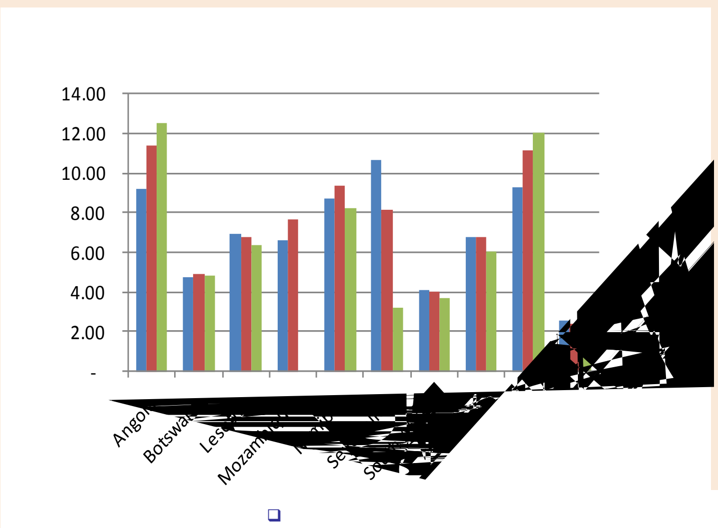
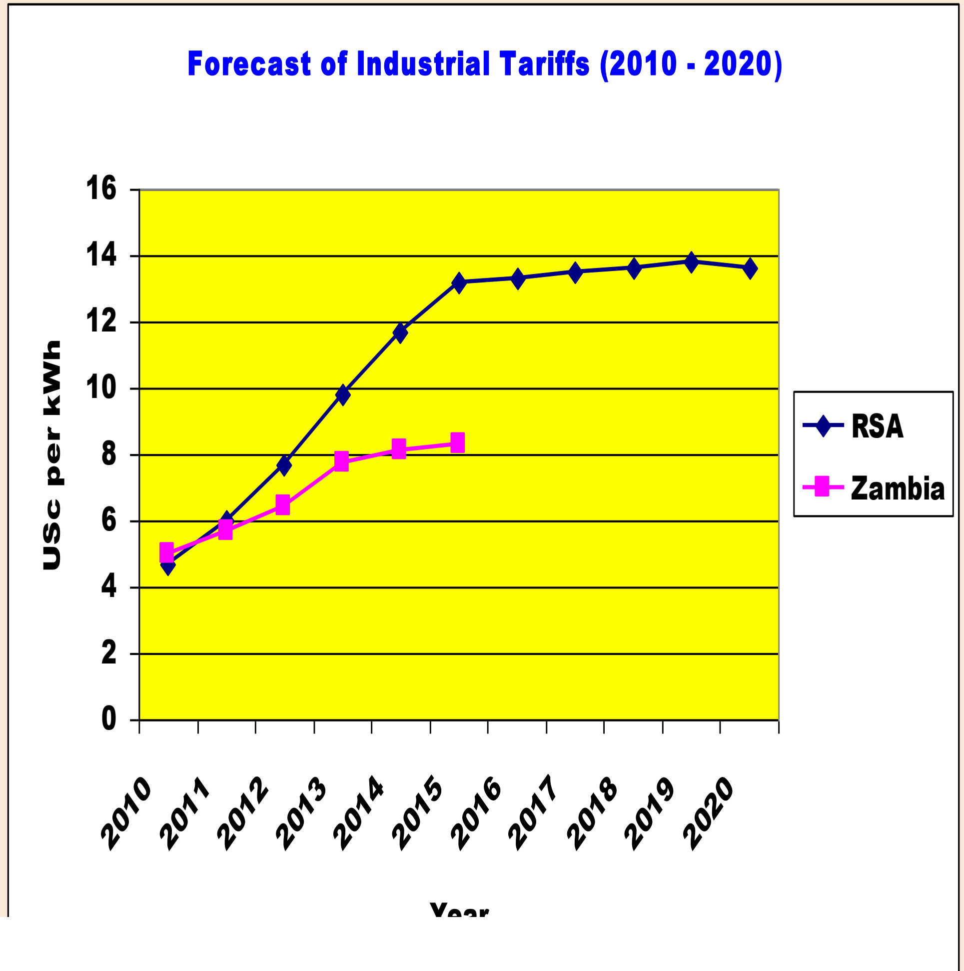
Regional Pricing Forecast (Border Price)



Regional Perspective of Pricing Trends

- Low Tariffs but rising to cost reflectivity
- Annual increases of 20-30%
- Driven by new investments needed to meet growing demand





LATEST PROJECT UPDATE

Current Update as at September 2013

- **En nt w t Gov rn nt on- o n on:**
  - Shareholder (parent) guarantees,
  - Policy & regulatory support for guaranteed tariff & protection from impacts of future change of law.
  - Government has engaged the World Bank and Africa Development Bank (AfDB) to provide advisory services on the structuring of the guarantees required for the project.

- **T Pro t D v op nt A r nt (PDA):**
  - The PDA negotiations between NamPower and the Kudu Gas Field developers were concluded and signed-off in March 2013.

  - PDA Steering Committee established, it is the highest decision making body as regards coordinating project timelines and project activities.

Current Update as at August 2013

- **EPC T n r:**

  - NamPower issued an EPC pre-qual tender in April 2013, and out of 45 companies that submitted bids, 15 were shortlisted.

  - The main EPC tender document has been issued to all 15 pre-qualified companies/consortia, and the tender is expected to close on 18 Oct 2013. 13 companies are still in the running.

  - Evaluation of the received tender bids expected to be completed before the end of 2013, with award at FID by mid 2014.

Current Update as at September 2013

- **Pro ur nt o Str t P rtn r(s):**
  - Expression of Interest received from CEC (Offtake Investor) to take upto 30% equity in the project. Joint Development Agreement (JDA) negotiations between NamPower and CEC were concluded in August 2013 and awaits formal approval by the Board, with signature subsequently thereafter.
  - The Strategic Equity Investor pre-qualification tender for the procurement of a Power Developer for the remaining 19% was issued to the market on 19 July 2013, and closed on 9 August 2013.
  - 12 submissions were received, evaluated and awaits formal approval by the Board.
- **Pow r Export A r nts (PXA) n ot t ons:**
  - PXA Termsheet negotiations with CEC of Zambia started in 2011 and are expected to be concluded in early September 2013,
  - PXA Termsheet negotiations with Eskom also commenced in 2011 and still on-going,
  - Full PXA negotiations to commence in 3rd quarter 2013, and will be concluded at FID.

Forthcoming Kudu tenders

T n rs t t v n ssu so r:

- EPC pre-qualification tender - **on**
- EPC main tender - closing 18 Oct 2013
- Investor pre-qual tender - closed on 9 Aug 2013
- O&M pre-qual tender - closed on 6 Sept 2013

T n rs t t r st to ssu :

- Financing pre-qual tender - issued on 20 Sept 2013

Direct/Indirect Impact on the Karas Region

- **D r t p t on Or n un :**
  - Increased revenue for local authority,
  - Housing expansion,
  - Infrastructure expansion/upgrade

- **B n ts & p t on t K r s r on:**
  - Sub-contracting during construction,
  - Employment opportunities,
  - Increased trading opportunities,
  - Local economy will be boosted,
  - Increased utilisation of Luderitz harbour,
  - Stimulation of secondary industry in region,
  - Increase in tourism potential of the region.

Indicative project timelines (2013 – 2017):

- **S n tur o PDA:**
  - 1 March 2013
- **F n Inv st nt D s on/F n n C os :**
  - 2nd quarter 2014
- **Co n nt o onstru t on:**
  - 4th quarter of 2014
- **Co r Op r t ons D t (COD):**
  - COD target date: end 2017
  - (36 months construction period)

For or n o ont t:

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