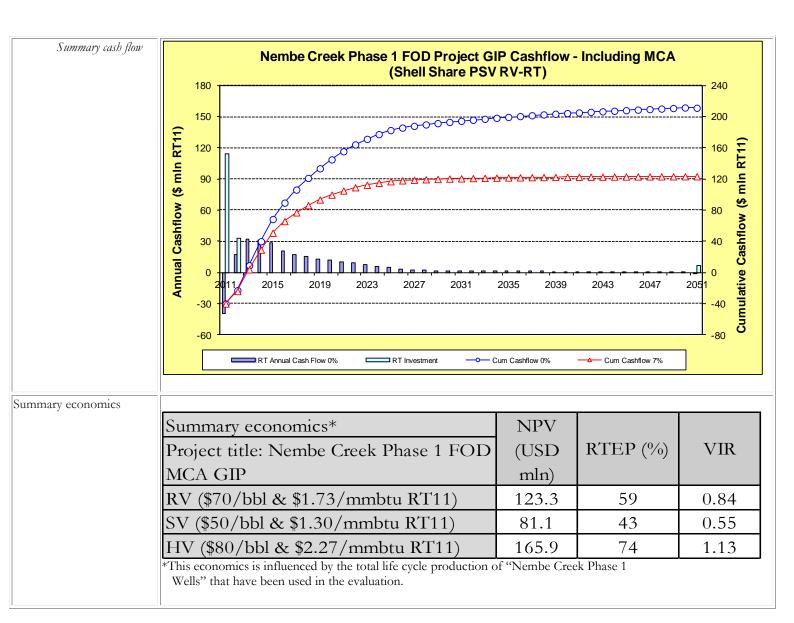
# **Group Investment Proposal**

# **Summary Information**

Business unit and company	Shell Petroleum	Developme	nt Compa	ny of Niger	ia Limited	(SPDC)					
Group equity interest	100% in SPDC.	, whereas SP	DC is the J	Joint Ventu	re (JV) op	erator of an	unincorpora	ted JV with	n a 30% in	terest.	
Other shareholders / partners	Nigerian Nation (NAOC: 5%)	ligerian National Petroleum Corporation (NNPC: 55%), TotalFinaElf (10%), and Nigerian Agip Oil Company NAOC: 5%)  Epstream International (UI)									
Business	Upstream Inter	national (UI)									
Amount	The headline size of US\$151.55mln Shell Share MOD 50/50 is being requested for approval in this revised GIP. The is made up of US\$81.13 mln approved in the previous proposal and US\$70.42 mln being requested for in the proposal for the execution of the Nembe Creek Phase 1 project. The headline size is composed of US\$150.05m CAPEX Shell Share MOD and US\$1.5 mln OPEX Shell Share.  The total commitment for Shell of US\$151.55 is made up of Shell Equity contribution of US\$69.87 mln and MC contribution of US\$81.68mln.									d for in this S\$150.05mlr	
Project	Nembe Creek	D' Sands Fur	ther Oil D	Pevelopmen	t (FOD) I	Phase 1					
Main commitments	50/50 MOD	200%	JV (\$'mln) M	OD_Previous II	,		Shell Share (\$	S'min) MOD_R	Levised IP		
	Description	Previous IP_JV under MCA Funding	Incremental IP Request_JV Funding	Incremental IP Request_ MCA Funding	Total IP	Shell Share MCA_Previous IP	Shell Share MCA_Incremental IP	Shell Share_Equity	Shell Share_MCA	Total Shell Share	
	Flowline & Hookup	22.12			22.12	14.75		6.64	8.11	14.75	
	Facilities	4.05	9	88	4.05	2.70		1.21	1.48	2.70	
	Wells	88.42	-	101.07	189.49	58.95	67.38	56.85	69.48	126.32	
	PMT	- 4	5.15	*	5.15	(4)	1.55	1.55	-	1.55	
	Contingency	7.11		2	7.11	4.74	-	2.13	2.61	4.74	
	Total CAPEX	121.70	5.15	101.07	227.91	81.13	68.92	68.37	81.68	150,05	
	SCD (OPEX)	2.5	5.00		5,00	94	1.50	1,50		1.50	
	Total Cost	121.70	10.15	101.07	232.91	81.13	70.42	69.87	81.68	151.55	
Reserves/Resources	This project is a MMstb of oil a MMstb (SS) fro attached). In ac	and 0.27 bln om PUD to	sm3 of g Proved I	as (SS) to p Developed	production in 2012 v	n and transf vith positive	erring equivate impact on	alent SEC SPDC DI	Proved re D&A (Ref	serves of 13 HCM table	
Production	Incremental oil (8.2 Mbopd and contributing to	d 2.8 MMsci	f/d SS) by	2013 thus							
Source and form of financing	contributing to SPDC's gas supply to NLNG.  This investment will be financed through the agreed MCA funding (Nembe Creek phase 1 project is part of t Nembe project bundle under MCA) ref GFP approved by the RDS Board on 22.07.2008. Total Shell commitmen including NNPC carry under the MCA, will be financed with SPDC Limited own generated funds. The MCA terr do not include PMT CAPEX and all OPEX related expenditures.									ommitments	



## Section 1: The proposal (Management Summary)

This revised Group Investment Proposal (GIP) seeks support/approval for funding of US\$70.42 mln Shell equity Share MOD and already approved additional investment of US\$81.13 million as NNPC carry under MCA to execute the Nembe Creek D sands Further Oil Development (FOD) phase 1 project.

The GIP update is necessitated by: the change in funding scope from Shell Equity share only to Shell Equity plus NNPC carry under MCA arrangement, project cost increase resulting from higher than anticipated Rig and materials cost, re-categorisation of the cost based on MCA guidelines and also the need to re-run the economics.

Nembe Creek Field is the largest oil field in the Western Swamp area of SPDC East with expectation STOIIP of 2832.3 MMstb and Expectation Ultimate Recovery(100%) of 1401.5 MMstb (reference NNS ARPR 31/12/2010). The cumulative production as at 31/12/2010 was 679.5MMstb of oil and 559.16 Bscf of gas from 64 wells. Undeveloped Expectation oil Reserves of 176.2 MMstb and 130.1 Bscf of gas exist in the field from NEMC phase 1 project and some existing conduits that have not been re-opened post NCTL commissioning. The development was optimised for the D sands by splitting it into two separate phases. The 'D' sands further oil development phases 1 & 2. This GIP covers only the Phase 1 Further Oil Development.

The Nembe Creek phase 1 project aims to drill and complete 8 wells, install flowlines and hook-up wells to existing flowstations, construct/install Remote Field Manifold and Bulk /Test lines. Nembe Creek field has AG gathering infrastructure in-place. There is export/pipeline ullage to deliver the produced gas to the Soku Gas Plant. The produced water will be disposed of at the Bonny Terminal. The total liquid processing capacity of the 4 existing flow stations in Nembe Creek Field is 180 Mbpd. Crude is evacuated from the field via the new Nembe Creek Trunk Line (NCTL).

In March 2007, approval was sought and obtained for US\$31.8 mln CAPEX Shell Share (with US\$4.7 mln previously approved in 2006 pre-FID IP) bringing the total approved Shell Share to US\$36.5 mln to drill 8 oil producers (7 horizontal & 1 conventional) in Nembe Creek field in 2007. As at June 2011, no new well has been drilled due to unavailability of the second Swamp Rig. There have been upward revisions of the well costs as shown above.

Drilling is planned to start in July 2011 with MCA pickup rig, based on the signed June 2011 Short-Term Drilling and Workover Sequence. The first oil is expected in August 2011 and typically, the new wells are expected to produce dry oil from 6 months to 2 years before water breakthrough. All the 8 wells will have gaslift mandrels to allow for gas lift assistance at a later stage.

The 2007 IP economics returned an NPV of \$72.2 mln at a Project Ranking Value (PRV) of \$40/bbl, compared to the full lifecycle evaluation of this revised IP at \$123.3mln NPV (7%) at a higher PRV of \$70/bbl (ref. Summary Economics section, Table 1) against the background of a different cost profile.

### Section 2: Value proposition and strategic and financial context

- This project is aligned with SPDC's strategic goals and priorities by maturing economic truncated 2P reserves of 26.8 MMstb of oil and 0.27 bln sm3 of gas (SS) to production and transferring equivalent SEC Proved reserves of 13 MMstb (SS) from PUD to Proved Developed in 2012 with positive impact on SPDC DD&A (Ref HCM table attached). In addition 0.26 MMstb PUD associated with MCA had been booked in 2010 (Ref 31.12.2010).
- Incremental oil production, peaking at 27.3 Mbopd by 2013, thus increasing the effective utilization of the new NCTL pipeline and contributing 9.7 MMscf/d to SPDC's gas supply to NLNG. This optimizes further the use of existing Right of Way (RoW) and facilities thereby lowering Unit Technical Cost (UTC) of development and minimizing the footprint.

The additional oil will partly arrest the production decline in Nembe Creek field while the associated gas will also contribute to gas sales. It will also lower the bulk water volume flowing through the Nembe Creek Trunk Line (NCTL) considerably. The result of this is higher volume of dry oil for the same volume of gross liquid.

#### **Summary Economics:**

The base case economics was evaluated on a forward-look basis and assumes that Shell will fund its NNPC share of the Carry (MCA) component of the costs and its Equity share of the project costs. This evaluation used the Shell Equity from 2008 to 2012 of US\$69.87 mln (including US\$1.5mln OPEX) and MCA Shell Share of US\$81.68 mln (i.e. Total cost of US\$151.55 mln out of \$232.91mln MOD 100% JV). The Project Management (PMT) CAPEX and SCD OPEX are excluded from MCA funding (treated as JV cost) as they were not originally part of the carry costs under the agreement.

The headline number covers the 2008 – 2012 CAPEX and OPEX Shell share, under JV funding required for the project execution, and the Shell share of the NNPC portion of the project cost, bringing total Shell share of the project cost to approximately 65% of the SPDC JV 100% cost of US\$232.91mln.

Sensitivities evaluated include:

- High CAPEX
- 1yr Schedule delay
- Full Life Cycle
- PIB House Version

- High & Low reserves
- Concession expiration in 2019
- 1.5% cost mark up as provision for costs dispute by NNPC, and

The impact of earlier expenditure (\$1mln 100% JV MOD) on the base case economics is shown under the Full Life Cycle sensitivities. The tornado plot is shown in Figure 1 while details of the evaluation results are shown in the economics grid in Table 1.

Table 1: Upstream Economic Grid of Nembe Creek 'D' Sands FOD Phase 1

PV Reference Date: 1/7/2011	NPV (S	/S \$ mln)	VIR	RTEP	UTC (R	Γ\$/boe	Payout-Time (RT)_0%	Maximum Exposure (RT)
Cash flow forward from: 1/1/2011	0%	7%	7%	%	0%	7%		
Base Case + MCA								
SV (\$50/bbl & \$1.30/mmbtu RT11)	143.3	81.1	0.55	43	8	10		
RV (\$70/bbl & \$1.73/mmbtu RT11)	211.2	123.3	0.84	59	8	10	2013	\$40.0mln in 2011
HV (\$90/bbl & \$2.27/mmbtu RT11)	280.0	165.9	1.13	74	8	10		
Oil BEP (RT \$/bbl)						8.44		
Sensitivities (using RV)								
High CAPEX (P90)		120.6	0.69				2014	\$48.6mln in 2011
High Reserves		136.8	0.93				2013	\$31.8mln in 2011
Low Reserves	-	43.5	0.30				2015	\$43.5mln in 2012
1-Yr Production Schedule Delay		114.2	0.78				2014	\$47.4mln in 2012
Concession Expiration (2019)		92.9	0.63				2013	\$40.0mln in 2011
Full Life Cycle (Capex - \$1.0mln MOD 100%)		123.0	0.84				2013	\$40.3mln in 2011
1.5% cost markup due to BVA issues		118.3	0.79					
PIB House_v12		146.7	1.00					

Key Project Parameter Data Ranges (Shell Share)

Parameter	Unit	BP10 Provision	Low	Mid	High	Comments
Capex (MOD)	US\$ mln	149.39	133.45	149.39	179.13	Incremental CAPEX under MCA Funding of \$81.38mln and JV Funding of \$68.01mln. Full Life Cycle cost of \$151.55mln made up by JV Funding of \$68.37mln and MCA of \$81.68mln.
Opex (MOD)_Project	US\$ mln	1.50	1.34	1.50	1.80	Incremental project OPEX under JV Funding.
Production Volume	mln boe	28.82	12.01	28.82	28 98	Production volume forecast till end of field life
Start Up Date	mm/yy	Aug-11	Aug-12	Aug-11	Aug-11	Base re-start up production
Production in first 12 months	mln boe			1.5		Production volume from Aug '11 to July '12

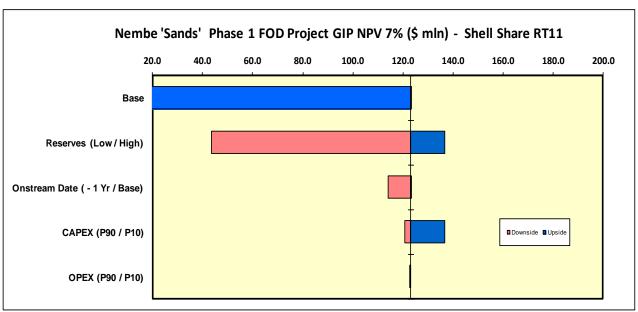


Figure 1: Tornado Plot for Nembe Creek Sands Phase 1 Project GIP

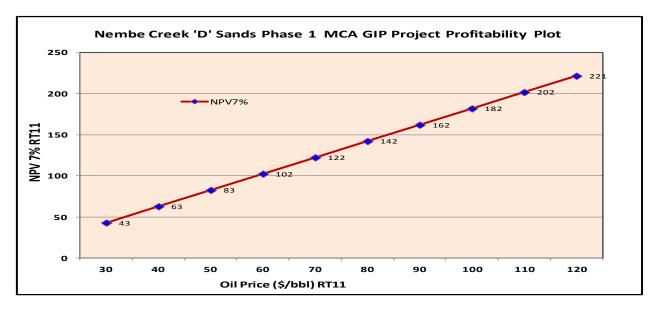


Figure 2: Profitability Plot for Nembe Creek 'D' Sands Phase 1 MCA GIP Project

#### **Key Economic Assumptions:**

- AGFA fiscal treatment applied.
- Gas Supply to NLNG T1-6 assumed Gas Sales Price \$1.73/mmbtu at PSV RV-RT in 2011.
- Gross Heating Value (GHV) of 1,150 btu/scf applied.
- ARPR OPEX as at 31/12/2010 (for 2011) was applied in addition to project SCD OPEX.
- AG Gas Sales Assumption is 87% of AG Produced
- NDDC Levy of 3% of total expenditure excluding flare penalty
- Education Tax of 2% assessable profit
- Flare penalty of \$3.5/Mscf applied.
- Water treatment cost at \$0.50/bbl applied.
- 10% of total project RT CAPEX assumed as abandonment cost

## MCA assumptions:

- All costs over the MCA ceiling would be recovered through cost oil.
- Project management costs were not included among the carried cost.
- MCA treatment is unchanged under PIB fiscal regime
- Profit oil ceiling of 8% IRR on carried costs

#### PIB assumptions:

- NHT depreciation schedule is 4 x 20%, 19% for qualifying expenditure.
- CIT depreciation schedule is 3 x 25%, 24%, for qualifying expenditure.
- Royalty rates based on product (value) prices and production rates per PML (assumed equal to a field).
- Education tax calculated as 2% of its assessable profit and it is not deductible for CIT, but deductible for NHT.
- NDDC levy calculated as 3% of expenditure
- Withholding tax is applicable at a rate of 7.5% for IAT version but not for the alternate version
- 20% of overseas cost is non-deductible for determination of NHT taxable income
- NHT rate is 50% for onshore and shallow water, and 30% for frontier acreages and Deep Water.
- CIT is 30% of taxable income and is not deductible from NHT
- Recovery in MCA for JV has been assumed for PIB
- Nembe is an existing field hence no production allowance is applicable.

#### Section 3: Risks, Opportunities and Alternatives

# Key risks, Mitigation & Opportunities include

The principal risks associated with this proposal, key mitigation measures and opportunities are as follows:

## 3.1 Risks

#### Funding:

There is the risk that project value to Shell will be eroded if the MCA-approved cost estimate is exceeded. There is also the risk that costs above the approved cost estimate may not be approved by NNPC and therefore become a Shell exclusive charge.

## Mitigation

Project should be executed strictly based on approved budget. Partners will be engaged early enough where there is variation. Lateral learning from other projects will be implemented to avoid cost overrun.

# • Community and Enabling Environment (Security, Sabotage, Political Environment):

Hostage taking, existence of militant groups and (heightened) threat of insurgence are current realities in the Niger Delta especially in the swamp which could threaten project execution.

## Mitigation

General Memorandum of Understanding (GMoU) has been signed with the community and 2% of the total project cost will be used for Community project. With improvements in the Niger Delta security following the Amnesty programme, it is envisaged that there will be a reduction in community related NPT. A safe and secure environment relies on the JTF presence. Existing Santa Barbara field project specific site security plan is in place and will be reviewed with Corporate Security through the appropriate Area Security Advisors with any amendments approved by Head Security Operations East. Specific threats will be managed through the Security & Surveillance Centre (SIS) and communicated in good time to those that need to "Know" and "act".

### • HSE:

The project is being executed under challenging circumstances in the Niger Delta Eastern Swamp.

#### Mitigation

HSE adviser has been assigned to the project and sustainable HSE-MS culture will be embedded during the execution of the project.

#### • Cost Overrun:

Increase in the rig cost as a result of non-productive time while drilling, escalated materials costs and Security.

#### Mitigation:

The well and facility cost have been updated to reflect current reality. Lateral learning from the completed Santa Barbara and Soku wells will be incorporated into the project and a focused Development Well Delivery Team with Well Engineering will continue to manage the activities.

#### • Early Water Breakthrough

Early water breakthrough from new wells resulting in reduced incremental oil recovery.

Mitigation

The wells will be optimally placed as possible to reduce the risk of water breakthrough. Learning from the previous wells drilled will be incorporated. Data from permanent down-hole gauges will allow real-time reservoir surveillance to optimize the individual well off-takes.

#### 3.2 Opportunities

#### • Resources

All the critical positions required to deliver the project have been fully resourced. Development Swamp Asset East (DSSE) Field Development and Execution Team will support the project execution. Engineering support will be provided by both major and Asset Engineering Teams.

## • Project support:

Project strongly supports the new oil production and would partly arrest the decline in oil production. The phase 1 wells will be used to acquire more data to help firm up the development proposals of Nembe Creek Phase 2 FDP which will further develop the D sand reservoirs and improve recovery.

### • Knowledge Sharing

This project will provide a very good opportunity for the new well-site PEs to have requisite operations experience under the close supervision of their senior PEs and SDEs

## 3.3 Alternatives

There are no alternatives to drilling these wells to develop the reserves given in this proposal.

#### Section 4: Carbon management

The main impact on Greenhouse Gas emissions is at the surface facilities due to increased energy consumption and low compressor uptime. Nembe Creek FOD phase 1 project would raise the 10-year average Green House Gas (GHG) emissions by 31.1KtCO2eq/year. However, if the compressor uptime, measurement device and rotating equipment improvement proposals set out in the facilities GHG & EM plan are executed successfully the average incremental emissions from the project would be 14.8 KtCO2eq/year.

#### Section 5: Corporate structure, and governance

This proposal is within the SPDC corporate structure and governance framework.

#### Section 6: Functional Support and consistency with Group and Business Standards

This proposal and the execution of the project are consistent with the Group Business standards. Functional support for this proposal has been provided by Technical, Finance, Legal, Treasury and Tax functions.

#### Section 7: Project Management, Monitoring and Review

The execution of the project is managed through the DSSE Field Development & Execution Team, Wells and Engineering Hub Teams in line with the SPDC organizational model. Following successful completion, the wells will be handed back to the Swamp East Production Operations Team. The Project Team will report weekly and monthly to Asset Development Manager and the Development General Manager on the progress of the well delivery activities. There will also be regular reviews with JV Partners. The general project management is as spelt out in the Opportunity Realisation Process (ORP). All significant reviews and follow up actions had been done in the Development and Engineering Teams with all the Team leaders, Discipline Chiefs and Management. Details of the ORP review gates are shown below:

DG3 approval in December 2005 VAR4/DG4 July/November 2006 Spud date: July 2011. On-Stream Date: August 2011.

#### Section 8: Budget provision

This revised Investment Proposal is in line with capital expenditure allocated to the Nembe Creek phase-1 project under the MCA of 2009 though there is shortfall of US\$34 mln (100%) in approved MCA versus current estimated project cost. In line with MCA agreement, NAPIMS will be engaged on the shortfall in order to reach an agreement on how to fund the additional cost.

Learning from recently executed similar projects has been incorporated into this revised budget for realism (e.g. increased well and Facility costs, high Non Productive Time (NPT) and low equipment efficiency). The total headline size being requested now for approval is US\$151.55 mln. The 100% Capex phasing (including SCD Opex of US\$5 mln) at 50/50 MOD estimate is shown in Table 2:

Table 2: NEMC FOD Phase 1 project Cost Phasing MOD 100% JV and Shell Share

NEMC PS# Estimate & Expenditure Plasing																
				JVF unded								MCA Fu	nded			
	2007	2005	2809	2810	2011	2012	2813	2014	2005	2809	2000	2011	2012	2013	2014	PROJECT TOTAL
Fuzities		-			-	-			1.00	-	-	30.33	8.36	-	-	39.69
PMT		-			3.86	1.29	-	-	-	-	-			-	-	5.15
Wells		-		-	-	-	-	-	-		-	134.42	41.54	-	-	175.96
Contingency				h .					-/		-	5.33	1.78	-	-	7.11
OPEX (SCD)	-	-			3.00	2.00		-			-					5.00
100% CAPEX Plasing					3.86	1.39	(-	1	1.00			170.85	5L68	-	-	227.91
100% Cost Phasing	9	0			6.56	3.29	-	ı	1.00		-	170.85	51.65	-	-	252.91
Years / Phasing (Shell Share)	2007	2005	2809	2010	2011	2012	2013	2014	2005	2009	2000	2011	2812	2013	2014	PROJECT TOTAL
JV_Cost Phasing (Shell Share)_CAPEX	0				1.16	0.39	-	-	0.30	-	-	51.02	15.50	-	-	68.37
JV_Cost Phasing (Shell Share)_OPEX	0	0.00			0.90	0.60	-	-								1.50
Total JV_Cost Phasing		0.00			2.06	0.387	-	-	0.30	-		5L02	15.50	-	-	69.87
MCA_Cost Phasing (Shell Share)_CAPEX									0.37	-	-	62.36	18.95	-	-	SL6S
Total Shell Share_JV & MCA	0				2.06	0.99	0.00	0.00	0.67			115.39	34.45	0.00	0.00	151.55

## Section 9: Group financial reporting impact

The financial impact of this proposal on Shell Group financial is as outlined in the Table below:

US\$ mln	<b>Prior Years</b>	2011	2012	2013	2014	2015	Post 2015
Total Commitment	0.67	115.44	35.44	0.00	0.00	0.00	0.00
Cash Flow							
SCD Expenditure	0.00	0.90	0.60	0.00	0.00	0.00	0.00
Capital Expenditure	0.67	114.54	34.84	0.00	0.00	0.00	0.00
Operating Expenditure	0.00	2.64	4.65	4.93	4.79	4.73	65.09
Cash Flow from Operations	0.17	20.69	41.04	47.96	47.78	46.34	197.51
Cash Surplus/(Deficit)	(0.50)	(93.86)	6.20	47.96	47.78	46.34	197.51
Profit and Loss							
NIBIAT +/-	0.03	6.64	20.32	21.33	20.25	19.81	169.09
Balance Sheet							
Average Capital Employed	0.80	69.89	161.20	170.10	149.17	133.39	341.75

#### Section 10: Disclosure

Material disclosures, if any, will be done in line with the Group Disclosure Guidelines.

## Section 11: Financing

Both SPDC's direct share of expenditure and its contribution to NNPC's share will be funded from SPDC's own cash flow and existing intra-group facilities.

## Section 12: Taxation

Carry expenditure not approved by NNPC is at risk of being non-deductible for tax purposes. The FIRS ruling for MCA's is restricted to MCA's concluded before the end of 2009 and future MCA's requiring prior engagement with FIRS.

## Section 13: Key Parameters

The following are the main aspects of this proposal:

Approval for the total revised headline size of US\$151.55 mln Shell Share 50/50 MOD. This is made up of US\$81.13 mln (SS MCA) previously approved in 2007 GIP and US\$70.42 mln (SS MCA) in this revised GIP(incremental IP). The Shell only Equity and MCA contributions are US\$69.87 mln and US\$81.68mln respectively.

## Section 14: Signatures

This Proposal is submitted to the ECMB for approval.	
Supported by:	For shareholder approval:
Maarten Wetselaar (FUI)	Malcolm Brinded (ECMB)
Date/	Date/
Initiator:  Ime Uyouko (UIG/T/DSSE)  Date: 31/07/2011	

# Lifecycle HCM Forecast Sheet

Nembe Creek Phase 1 Project Location & Country Version 2.0

Project No.: SPDC-11-2582

Mandatory for Upstream and mandatory for Exploration, Development and NBD projects  $\geq$  US\$ 100 mln SS, but strongly recommended for all projects < 100 mln US\$

OIL/NGL [min bbl]	Date	2U Prospective Resources		itingent Additions	PR	MS 2P Reser Additions	ves	SEC Proved Reserves Additions		
[min bbi]			Dev.	Dev.	Undeveloped		Developed	Undev	Developed	
DG/Key event	(mm)-yy	Prospect	Pending Post-DG1	Pending Post-DG2	Post DG3	Post-DG4	Developed	-	Бетегоров	
DG 2	Oct-05			26.8						
DG 3	Dec-05			-26.8	26.8					
FID	Jul-06			W. C. W. C.	-26.8	26.8		13.0		
First HC	2011	-		-		26.8	26.8	-13.0	13.0	
1131110	2012								0.0	
	2013					Transfer			0.0	
	2014								0.0	
Perf Update	2015								6.8	
on opacio	2016								0.0	
	2017							· ·	0.0	
Perf Update	2018								4.0	
	2019							-	0.0	
Perf Update	2020						1000		0.0	
	2021		1						2.9	
	2022								0.0	
Perf Update	2023					-	-		0.2	
	2024								0.0	
	2025					-			0.0	
	2026				-				0.0	
	2027				1	1			0.0	
	2028				-	-			0.0	
later years	1			1	0.0	0.0	26.8	0.0	26.8	
Total		0.0	0.0	0.0	0.0	Ų.U	20.0	0.0		

	Annua	
		A COUNTY OF THE PARTY OF THE PA
	0.7	_
	3.1	-
-	2.8	-
_	2.8	-
	2.0	-
	1.8	
	1.3	
	1.1	Ī
	1.0	
	1.0	
	0.9	
	8.0	
	0.8	
	0.6	
_	0.4	_
	0.3	_
	2.9	_

OIL/NGL [bin sm3]		2U Prospective	17070.07000	itingent urces	PR	MS 2P Reser	ves	SEC Proved Reserves	
			Dev.	Dev.	Undeveloped		Developed	Undev	Developed
		Prospect	Pending Post-DG1	Pending Post-DG2	Post DG3	Post-DG4	Developed	Under	Beveloped
ARPR 31.12.2009	before last					30.3		13.0	
ARPR 31.12.2010	last					30.3		18.3	

GAS	Date	2U Prospective		itingent Additions	PR	MS 2P Reser Additions	ves	SEC Proved Reserves Additions		
[bin sm3]			Dev.	Dev.	Undev	eloped	Developed	Undev	Developed	
DG/Key event	(mm)-yy	Prospect	Pending Post-DG1	Pending Post-DG2	Post DG3	Post-DG4	Developed		Deteloped	
DG 2	Oct-05			0.27						
DG 3	Dec-05		CAT.	-0.27	0.27					
FID	Jul-06				-0.27	0.27		0.20		
								-0.20	0.20	
First HC	2011					-0.27	0.27	-0.20	0.00	
	2012						-		0.00	
	2013				-				0.00	
	2014				-		-		0.00	
	2015						-		0.00	
	2016				-			_	0.00	
	2017								0.00	
	2018			-			-		0.04	
	2019					-	-	-	0.00	
	2020			-	-		-		0.00	
	2021			-	_		-		0.03	
	2022					-	-		0.00	
	2023			-					0.00	
	2024			1			-		0.00	
	2025				-	-	-		0.00	
	2026	-		-	-	-			0.00	
	2027	-	-	-	-				0.00	
later years	2020								0.07	
Total		0.0	0.0	0.0	0.0	0.0	0.27	0.0	0.27	

Annua	
0.01	200
0.03	
0.02	
0.02	
0.02	_
0.02	_
0.02	_
0.01	_
0.01	-
0.01	-
0.01	-
0.01	
0.01	
0.01	
0.00	
0.00	
0.00	
0.04	
0.27	

NOTE AND DESCRIPTION OF THE PERSON OF THE PE		2U Prospective		ntingent urces	PR	MS 2P Reser	ves	SEC Proved Reserves Additions	
Gas [bln sn			Dev.	Dev.	Undev	Undeveloped		Undev	Developed
		Prospect	Pending Post-DG1	Pending Post-DG2	Post DG3	Post-DG4	Developed	Ondev	Developed
ARPR 31 12 2009	before last					0.63		0.20	
ARPR 31.12.2010	last					0.51		0.29	

Name :

Signature :

VP Technoloal (or VP-X)
Lismont, Bart

0 1

Name :

For ADL-RE (RXC or RXHM)
ne : Emelle, Chima

Signature :

NGCEM3
Diskally signed by NGCEM3
Disk-2011.06.09 17:21:42
401'00'

Note: Production forecast and PDRA forecast need to be fully consistent with economic and financial evaluations and results presented in the GIP, HCM foecast need to be captured in HRV-MS, which is the single data source for HCM.

developed reserves additions minus cum produciton				
2P Reserves Developed	SEC Proved Developed			
0.0	0.0			
0.0	0.0			
0.0	0.0			
0.0	0.0			
0.0	0.0			
0.0	0.0			
26.2	12.3			
23.1	9.3			
20.3	6.4			
17.5	3.6			
15.2	8.2			
13.2	6.1			
11.4	4.3			
10.1	7.0			
9.0	5.9			
70	4.0			

CHECK

incorrect

CHECK
developed reserves
additions minus cum
produciton

2P Reserves
Developed

0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.01
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.00 0.00
0.01 0.05
0.05 0.05
0.05 0.05
0.06 0.06
0.06 0.06
0.06 0.06
0.06 0.06
0.06 0.06
0.06 0.06
0.06 0.06
0.06 0.06
0.06 0.06
0.06 0.06

incorrect

ESTIMATE FACT SHEET Nembe Creek FOD Nigeria		Project No.:	Version 2.4 Confidential Approved Cost & Schedule Estimate C11020		
Estimator: Olaribigbe, Elias  Case: Base		as	Planner:	Dadi, Musa  Rates of Exchange are as per SI-SX Data Set	
Market Scenario: RV	Estimate Type:	3		Cost are in: USD Millions	
stimate Start / End: FID Me	ar-2007 / RFSU May-2012			EDM Dates	1-Jul-10
tegory				Total Costs	
acilities				36	
Wells>				180	
wners cost (incl. insurance,	, pre-FID, Capitalized interest)			6	
arket Escalation, EPC Prem	ium & Yaxes			2	
ntingency	Facilities 18%		<wells>: 0%</wells>	7	
flation				3	
			P10	P50	P90
roved Total Project Estimat	le, MOB	10 3	205	233	280
			-12%		20%
ecution Strategy Premise	Use of existing tig and facilities (fla	owlines and mi	not facilities installation) carbo	of contracts	
-	Callout contracts  Security/community issues. Poor co	ontractor quality	funded and integral and average	tundi statuca sonoca ad	
y Project Risks	Calliour contracts  Security/continuity issues. Poor ca		ε, funding and internal and θ	ternal methoce management	
ontract Strategy  by Project Risks  clusions  nchmarking & Metrics	Security/continuity issues. Poor constitution of interest during a security to see the security of the securit	nonstruction			
y Project Risks clusions nchmarking & Metrics ex Phasing and Planned	Security/continuity issues. Poor constitution of interest during a security to see the security of the securit	construction  fed contracts/P		nots for similar activities	
y Project Risks dusions achmarking & Metrics	Security/continuity issues. Poor constitution of interest during a security to see the security of the securit	renstruction (ed connects/P			Enish (P90)
Project Risks  fusions  chmarking & Metrics  Ex Phasing and Planned  180 160	Security/continuity issues. Poor constitution of interest during of interest during of Estimate is targety based on award.  Progress:	ionstruction feed contracts/P 120% 100%	Cs and easing colour control  Phase FID	nots for similar activities  Key Schedule Dates:	Enish (P90) Mar 2007
y Project Risks flusions schmarking & Metrics ex Phasing and Planned 180 160 140	Security/continuity issues. Poor constitution of interest during of interest during of interest during or Estimate is largely based on awards.	renstruction feed cormacts/P 120% 100% 80%	Cs and easing colour control  Phase FID <detailed eng.=""></detailed>	Key Schedule Dates: Finish (P50) Mar2007 M12011	Mar 2007 Jul 2011
y Project Risks flusions schmarking & Metrics ex Phasing and Planned	Security/continuity issues. Poor constitution of interest during of interest during of interest during or Estimate is largely based on awards.	renstruction feed contracts/P 120% 100% 80% 60%	Cs and easing colour control  Phase FID <detailed eng.=""> <procurement></procurement></detailed>	Key Schedule Dates: Finish (P50) Mar2007 M2011 Mary2011	Mar 2007 Jel 2011 May 2011
lusions  Achmarking & Metrics  Ex Phasing and Planned  180 160 140 120 100 80 60	Security/community issues. Poor constitution of interest during of interest during of Estimate is largely based on award Progress:	renstruction fed contracts/P 120% 100% 80% 60% 40%	Cs and easing colout centre  Phase FID <detailed eng.=""> <procurement> <construction></construction></procurement></detailed>	Key Schedule Dates: Finish (P50) Mar-2007 M 2011 May-2011 May-2011 May-2012	Mar 2007 Jul 2011 May 2011 Jun 2012
y Project Risks clusions achmarking & Metrics ex Phasing and Planned 180 160 140 120 80 60 40	Security/community issues. Poor constitution of interest during of interest during of Estimate is largely based on award.  Progress:	120% 100% 80% 60% 40% 20%	Cs and easing colour control  Phase FID <detailed eng.=""> <procurement></procurement></detailed>	Key Schedule Dates: Finish (P50) Mar2007 M2011 Mary2011	Mar 2007 Jel 2011 May 2011
y Project Risks clusions achmarking & Metrics ex Phasing and Planned 180 160 160 100 80 60	Security/community issues. Poor constitution of interest during of interest during of Estimate is largely based on award.  Progress:	renstruction fed contracts/P 120% 100% 80% 60% 40%	Cs and easing colout centre  Phase FID <detailed eng.=""> <procurement> <construction></construction></procurement></detailed>	Key Schedule Dates: Finish (P50) Mar-2007 M 2011 May-2011 May-2011 May-2012	Mar 2007 Jul 2011 May 2011 Jun 2012
tusions  tehmarking & Metrics  ex Phasing and Planned  180 160 140 120 80 60 40 20	Security/community issues. Poor constitution of interest during of interest during of Estimate is targety based on award Progress:	feed contracts/P  120% 100% 80% 60% 40% 20%	Cs and easing colout centre  Phase FID <detailed eng.=""> <procurement> <construction></construction></procurement></detailed>	Key Schedule Dates: Finish (P50) Mar-2007 M 2011 May-2011 May-2011 May-2012	Mar 2007 Jul 2011 May 2011 Jun 2012
tusions  Achmarking & Metrics  Ex Phasing and Planned  180 160 140 120 100 80 60 40 20	Security/community issues. Poor constitution of interest during of interest during of interest during of Progress:	120% 100% 80% 60% 40% 20% 0%	Cs and easing colout centre  Phase FID <detailed eng.=""> <procurement> <construction></construction></procurement></detailed>	Key Schedule Dates: Finish (P50) Mar-2007 M 2011 May-2011 May-2011 May-2012	Mar 2007 Jul 2011 May 2011 Jun 2012
Project Risks  Ausions  Achmarking & Metrics  Ex Phasing and Planned  180 160 140 120 100 80 60 40 20	Security/community issues. Poor constitution of interest during of interest during of interest during of Progress:	120% 100% 80% 60% 40% 20%	Cs and easing colout centre  Phase FID <detailed eng.=""> <procurement> <construction></construction></procurement></detailed>	Key Schedule Dates: Finish (P50) Mar-2007 M 2011 May-2011 May-2011 May-2012	Mar 2007 Jul 2011 May 2011 Jun 2012
Project Risks  Lusions  chmarking & Metrics  X Phasing and Planned  180 160 140 120 100 80 60 40 20	Security/community issues. Poor constitution of interest during of interest during of Progress:  Progress:  OR R R R R R R R R R R R R R R R R R R	120% 100% 80% 60% 40% 20%	Phase FID  Obtailed Eng.> <pre> <pre> <pre> </pre>  <pre> <pre> </pre> <pre> <pre> FID </pre> <pre> <pre< td=""><td>Key Schedule Dates: Finish (P50) Mar-2007 May-2011 May-2011 May-2012 May-2012 May-2012</td><td>Mar 2007 Jel 2011 May 2011 Jun 2012 Jun 2012</td></pre<></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	Key Schedule Dates: Finish (P50) Mar-2007 May-2011 May-2011 May-2012 May-2012 May-2012	Mar 2007 Jel 2011 May 2011 Jun 2012 Jun 2012
y Project Risks  clusions  achmarking & Metrics  ex Phasing and Planned  180 160 140 120 100 80 60 40 20	Security/community issues. Poor constitution of interest during of int	120% 100% 80% 60% 40% 20%	Phase FID  **Operation of the control of the contro	Key Schedule Dates: Finish (P50) Mar-2007 M 2011 May-2011 May-2012 May-2012 May-2012	Mar 2007 Jel 2011 May 2011 Jun 2012 Jun 2012
y Project Risks  clusions  achmarking & Metrics  ex Phasing and Planned  180 160 140 120 80 60 40 20 Facilities	Security/community issues. Poor constitution of interest during of interest during of interest during of Estimate is largely based on awards.  Progress:  One of the progress	renstruction fed contracts/P 120% 100% 80% 60% 40% 20% 0% -20%	Phase FID  Obtailed Eng.> <pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre> FID </pre> <pre> </pre> <pre> <pre> <pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre> <pre> <pre> <pre> <pre> </pre> <pre> <pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	Key Schedule Dates: Finish (P50) Mar-2007 M2011 Mary-2011 Mary-2012 Mary-2012 Mary-2012  Mary-2012  Project Mane	Mar 2007 Jel 2011 May 2011 Jun 2012 Jun 2012 Jun 2012
y Project Risks clusions  achmarking & Metrics  ex Phasing and Planned  180 160 140 120 100 80 60 40 20 Facilities	Security/community issues. Poor constitution of interest during of interest during of Progress:  Progress:  DCAFTA 1  Bensley Andrew	renstruction fed contracts/P 120% 100% 80% 60% 40% 20% 0% -20%	Phase FID  **Operation of the control of the contro	Key Schedule Dates: Finish (P50) Mar-2007 M 2011 May-2011 May-2012 May-2012 May-2012	Mar 2007 Jel 2011 May 2011 Jun 2012 Jun 2012 Jun 2012
y Project Risks clusions  achmarking & Metrics  ex Phasing and Planned  180 160 140 120 80 60 40 20  Date Name	Security/community issues. Poor constitution of interest during of interest during of Exemple is largely based on award.  Progress:  Owners Costs  DCAF TA 1  Bensley Abdrew  :	120% 100% 80% 60% 40% 20% 0%	Phase FID  **Characteristics**  **Characteristics**  **Construction**  **Commissioning**  **Commissioning**  **Date:  **Table	Key Schedule Dates: Finish (PSO) Mar-2007 M12011 Mary-2011 Mary-2012 Mary-2012  Mary-2012  Project Mana 22 - C6 - 2  Uyouko Im	Mar 2007 Jel 2011 May 2011 Jun 2012 Jun 2012
y Project Risks clusions  achmarking & Metrics  ex Phasing and Planned  180 160 140 120 100 80 60 40 20  Facilities	Security/community issues. Poor constitution of interest during of int	120% 100% 80% 60% 40% 20% 0%	Phase FID  Obtailed Eng.>  Procurement>  Commissioning>  RFSU  Date:  Signature:	Key Schedule Dates: Finish (PSO) Mar-2007 M 2011 Mary-2011 May-2012 May-2012  May-2012  Project Mane 22 - C6 - 2  Uyouko Im Business Opportunit	Mor 2007 Jel 2011 May 2011 Jun 2012 Jun 2012 Jun 2012
y Project Risks clusions  achmarking & Metrics  ex Phasing and Planned  180 160 140 120 100 80 60 40 20 Facilitie  Date Name Signature	Security/community issues. Poor constitution of interest during of int	120% 100% 80% 60% 40% 20% 0%	Phase FID  **Characteristics**  **Characteristics**  **Construction**  **Commissioning**  **Commissioning**  **Date:  **Table	Key Schedule Dates: Finish (PSO) Mar-2007 M 2011 Mary-2011 May-2012 May-2012  May-2012  Project Mane 22 - C6 - 2  Uyouko Im Business Opportunit	Mar 2007 Jel 2011 May 2011 Jun 2012 Jun 2012 Jun 2012  Jun 2017

**ESTIMATE FACT SHEET**