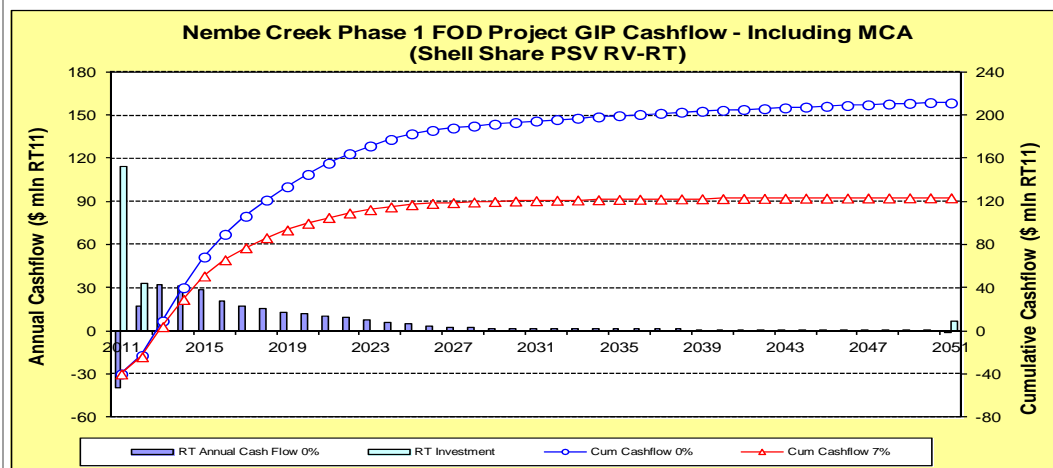


## Group Investment Proposal

### Summary Information

Business unit and company	Shell Petroleum Development Company of Nigeria Limited (SPDC)																																																																																																												
Group equity interest	100% in SPDC, whereas SPDC is the Joint Venture (JV) operator of an unincorporated JV with a 30% interest.																																																																																																												
Other shareholders / partners	Nigerian National Petroleum Corporation (NNPC: 55%), Total E&P Nigeria Ltd (10%), and Nigerian Agip Oil Company (NAOC: 5%)																																																																																																												
Business	Upstream International (UI)																																																																																																												
Amount	<p>The headline size of US\$151.55mln Shell Share MOD 50/50 composed of US\$150.05mln CAPEX Shell Share MOD and US\$1.5 mln OPEX Shell Share is being requested for approval in this revised GIP. This is made up of US\$81.13 mln approved in the previous proposal and US\$70.42 mln being requested for in this proposal.</p> <p>The total commitment for Shell of US\$151.55 is made up of Shell Equity contribution of US\$69.87 mln and MCA contribution of US\$81.68mln.</p>																																																																																																												
Project	Nembe Creek 'D' Sands Further Oil Development (FOD) Phase 1																																																																																																												
Main commitments	<table border="1"> <thead> <tr> <th>50/50 MOD</th><th colspan="4">100% JV (\$'mln) MOD_Previous IP</th><th colspan="5">Shell Share (\$'mln) MOD_Revised IP</th></tr> <tr> <th>Description</th><th>Previous IP_JV under MCA Funding</th><th>Incremental IP Request_JV Funding</th><th>Incremental IP Request_MCA Funding</th><th>Total IP</th><th>Shell Share MCA_Previous IP</th><th>Shell Share MCA_Incremental IP</th><th>Shell Share_Equity</th><th>Shell Share_MCA</th><th>Total Shell Share</th></tr> </thead> <tbody> <tr> <td>Flowline &amp; Hookups</td><td>22.12</td><td>-</td><td>-</td><td>22.12</td><td>14.75</td><td>-</td><td>6.64</td><td>8.11</td><td>14.75</td></tr> <tr> <td>Facilities</td><td>4.05</td><td>-</td><td>-</td><td>4.05</td><td>2.70</td><td>-</td><td>1.21</td><td>1.48</td><td>2.70</td></tr> <tr> <td>Wells</td><td>88.42</td><td>-</td><td>101.07</td><td>189.49</td><td>58.95</td><td>67.38</td><td>56.85</td><td>69.48</td><td>126.32</td></tr> <tr> <td>PMT</td><td>-</td><td>5.15</td><td>-</td><td>5.15</td><td>-</td><td>1.55</td><td>1.55</td><td>-</td><td>1.55</td></tr> <tr> <td>Contingency</td><td>7.11</td><td>-</td><td>-</td><td>7.11</td><td>4.74</td><td>-</td><td>2.13</td><td>2.61</td><td>4.74</td></tr> <tr> <td>Total CAPEX</td><td>121.70</td><td>5.15</td><td>101.07</td><td>227.91</td><td>81.13</td><td>68.92</td><td>68.37</td><td>81.68</td><td>150.05</td></tr> <tr> <td>SCD (OPEX)</td><td>-</td><td>5.00</td><td>-</td><td>5.00</td><td>-</td><td>1.50</td><td>1.50</td><td>-</td><td>1.50</td></tr> <tr> <td>Total Cost</td><td>121.70</td><td>10.15</td><td>101.07</td><td>232.91</td><td>81.13</td><td>70.42</td><td>69.87</td><td>81.68</td><td>151.55</td></tr> </tbody> </table>									50/50 MOD	100% JV (\$'mln) MOD_Previous IP				Shell Share (\$'mln) MOD_Revised 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 & Hookups	22.12	-	-	22.12	14.75	-	6.64	8.11	14.75	Facilities	4.05	-	-	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	-	5.15	-	5.15	-	1.55	1.55	-	1.55	Contingency	7.11	-	-	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)	-	5.00	-	5.00	-	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
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Reserves/Resources	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).																																																																																																												
Production	Incremental oil production from this project peaks at 27.3 Mbopd with associated gas production of 9.7 MMscf/d (8.2 Mbopd and 2.8 MMscf/d SS) by 2013 thus increasing the effective utilization of the new NCTL pipeline and contributing to SPDC's gas supply to NLNG.																																																																																																												
Source and form of financing	This investment will be financed through the agreed MCA funding for NCTL Bundle, reference GFP approved by the RDS Board on 22.07.2008. Total Shell commitments, including NNPC carry under the MCA, will be financed with SPDC Limited own generated funds. The MCA terms do not include PMT CAPEX and all OPEX related expenditures.																																																																																																												



## Summary economics

Summary economics*	NPV (USD mln)	RTEP (%)	VIR
Project title: Nembe Creek Phase 1 FOD MCA GIP			
RV (\$70/bbl & \$1.73/mmbtu RT11)	123.3	59	0.84
SV (\$50/bbl & \$1.30/mmbtu RT11)	81.1	43	0.55
HV (\$80/bbl & \$2.27/mmbtu RT11)	165.9	74	1.13

\*This economics is influenced by the total life cycle production of “Nembe Creek Phase 1 Wells” that have been used in the evaluation.

## 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 (NEMC 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 FOD phases 1 & 2. This GIP covers only the Phase 1 FOD.

The NEMC 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 project costs as shown above.

Though the revised Investment Proposal is in line with capital expenditure allocated to the Nembe Creek phase-1 project in the business plan, there is shortfall of US\$29.07 mln (100%) when compared to the costs per the 2008 MCA agreement. The shortfall in the JV funded cost is US\$5.15 mln.

Drilling operations started 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.

The 2007 IP economics returned an NPV of \$61.6 mln at a Project Screening Value (PSV) of \$30/bbl, compared to the full lifecycle evaluation of this revised IP at \$81.1 mln NPV (7%) at a higher PSV of \$50/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 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 Social Performance OPEX are excluded from MCA funding (treated as JV cost) as they were not originally part of the carry costs under the agreement. The 100% Capex phasing (including Social Performance Opex of US\$5 mln) at 50/50 MOD estimate is shown in Table 1:

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

<u>NEMC P50 Estimate &amp; Expenditure Phasing</u>																
	<i>JV Funded</i>								<i>MCA Funded</i>							PROJECT TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2008	2009	2010	2011	2012	2013	2014	
Facilities	-	-			-	-			1.00	-	-	30.33	8.36	-	-	39.69
PMT		-			3.86	1.29	-	-	-	-	-			-	-	5.15
Wells	-	-		-	-	-	-	-	-	-	-	134.42	41.54	-	-	175.96
Contingency	-								-	-	-	5.33	1.78	-	-	7.11
OPEX (SCD)	-	-			3.00	2.00	-	-		-	-					5.00
100% CAPEX Phasing	0				3.86	1.29	-	-	1.00			170.08	51.68	-	-	227.91
100% Cost Phasing	0	0			6.86	3.29	0	0	1.00	-	-	170.08	51.68	-	-	232.91
Years / Phasing (Shell Share)	2007	2008	2009	2010	2011	2012	2013	2014	2008	2009	2010	2011	2012	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	0.00			2.06	0.987	-	-	0.30	-	-	51.02	15.50	-	-	69.87
MCA_Cost Phasing (Shell Share)_CAPEX									0.37	-	-	62.36	18.95	-	-	81.68
Total Shell Share_JV & MCA	0			0	2.06	0.99	0.00	0.00	0.67			113.39	34.45	0.00	0.00	151.55

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.

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 2.

**Table 2: Upstream Economic Grid of Nembe Creek 'D' Sands FOD Phase 1**

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

**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 vloume from Aug '11 to July '12

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

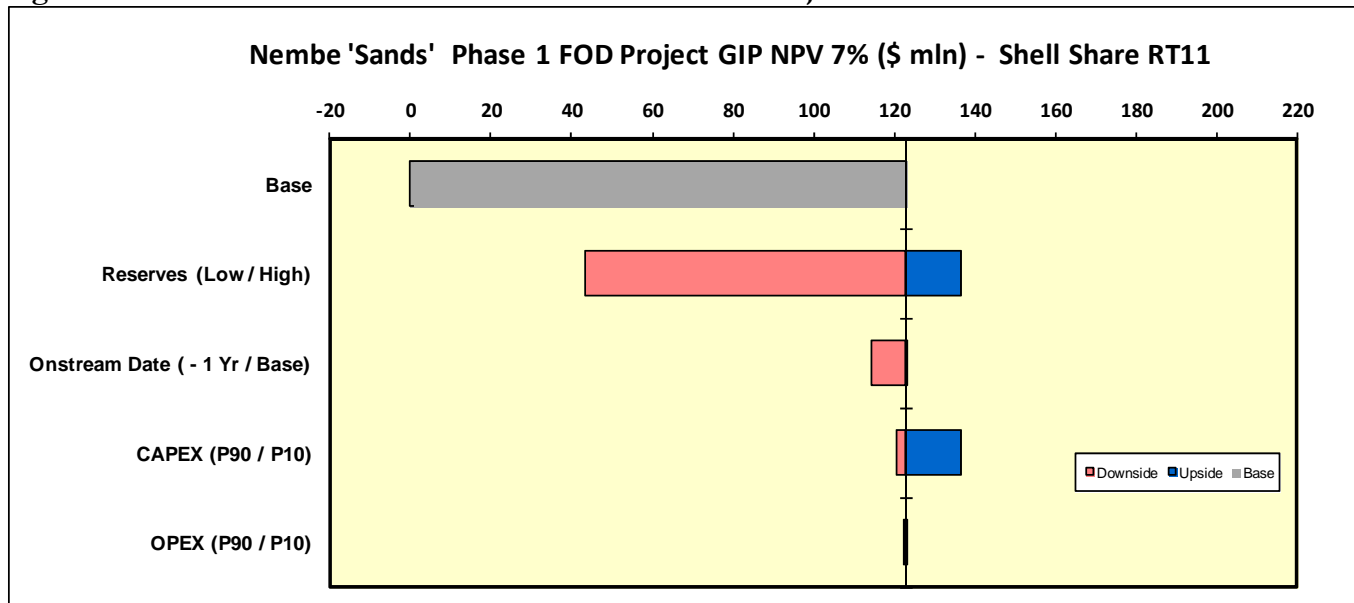
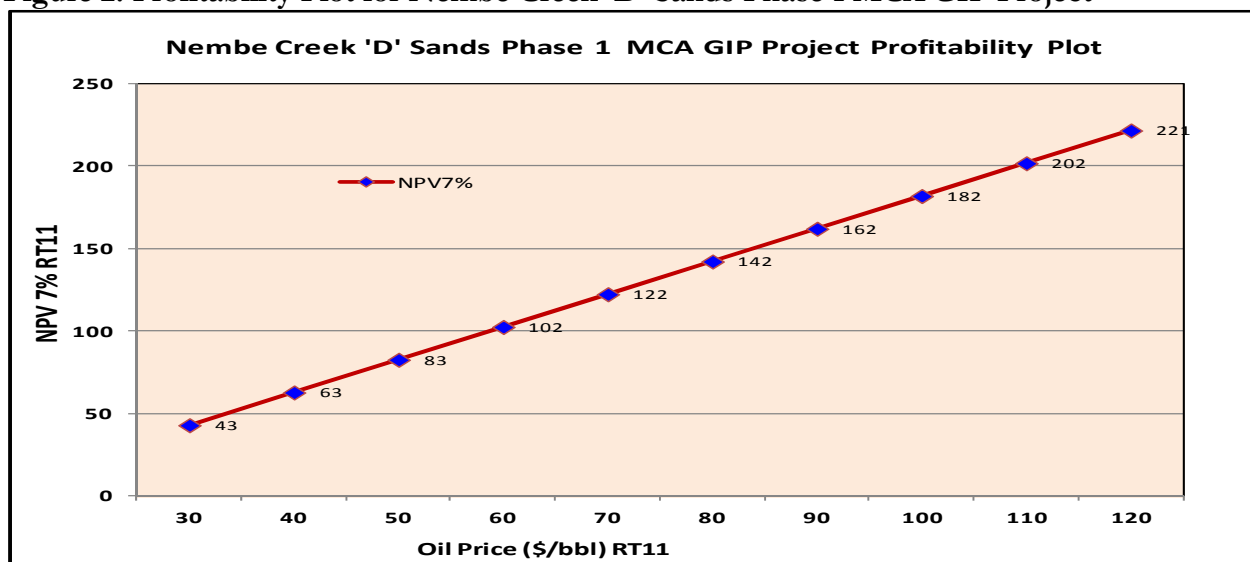


Figure 2: Profitability Plot for Nembe Creek 'D' Sands Phase 1 MCA GIP Project



### 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 Social Performance 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 would be executed 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 insurgency 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, although it is still perceived that a safe and secure environment relies on the presence of the government security outfit in the area. Existing Nembe Creek 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.

- **Risk around unapproved incremental MCA Costs**

There is a risk that un-approved MCA costs would be disallowed for tax deductions by the FIRS.

*Mitigation:* Upstream Commercial Finance would re-negotiate and ensure that incremental costs are approved by NNPC.

### 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 31.1KtCO<sub>2</sub>eq/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 KtCO<sub>2</sub>eq/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, Contracting/Procurement, Social Performance 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. There will be regular progress report of the well delivery activities to Asset Development Manager, the Development General Manager and to the JV Partners. All significant reviews and follow up actions had been done in the Development and Engineering Teams. 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 project has budget cover and is included in BP10 and BP11 as well as the 2011/12 JV Programme. Though the revised Investment Proposal is in line with capital expenditure allocated to the Nembe Creek phase-1 project in the business plan, there is shortfall of US\$ 29.07 mln (100%) when compared to the costs per the 2008 MCA agreement. The shortfall in the JV funded cost is US\$5.15 mln. 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.

### **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	Prior Years	2011	2012	2013	2014	2015	Post 2015
<b>Total Commitment</b>	0.67	115.44	35.44	0.00	0.00	0.00	0.00
<b>Cash Flow</b>							
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
<b>Profit and Loss</b>							
NIBIAT +/-	0.03	6.64	20.32	21.33	20.25	19.81	169.09
<b>Balance Sheet</b>							
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**

MCA fiscal arrangements are acceptable to the Tax authorities, provided their sign off is obtained before implementation.

### **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

Confidential

Project No.: SPDC-11-2582

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

OIL NGL [mln bbl]	Date	2U Prospective Resources	2C Contingent Resources Additions		PRMS 2P Reserves Additions			SEC Proved Reserves Additions	
			Dev. Pending Post-DG1	Dev. Pending Post-DG2	Undeveloped		Developed	Undev	Developed
	DG/Key event	(mm)-yy			Prospect	Post DG3			
DG 2	Oct-05			26.8					
DG 3	Dec-05			-26.8	26.8				
FID	Jul-06				-26.8	26.8		13.0	
First HC	2011					26.8	26.8	-13.0	13.0
	2012								0.0
	2013								0.0
	2014								0.0
Perf Update	2015								6.8
	2016								0.0
	2017								0.0
Perf Update	2018								4.0
	2019								0.0
Perf Update	2020								0.0
	2021								2.9
	2022								0.0
Perf Update	2023								0.2
	2024								0.0
	2025								0.0
	2026								0.0
	2027								0.0
	2028								0.0
later years									
Total		0.0	0.0	0.0	0.0	0.0	26.8	0.0	26.8

OIL/NGL [bln sm3]	Date (mm-yy)	2U Prospective Resources	2C Contingent Resources Additions		PRMS 2P Reserves Additions			SEC Proved Reserves Additions	
		Prospect	Dev. Pending Post-DG1	Dev. Pending Post-DG2	Undeveloped		Developed	Undev	Developed
					Post DG3	Post-DG4			
ARPR 31.12.2009	before last					30.3		13.0	
ARPR 31.12.2010	last					30.3		18.3	

GAS [bln sm3]	Date	2U Prospective	2C Contingent Resources Additions		PRMS 2P Reserves Additions			SEC Proved Reserves Additions	
	(mm)-yy	Prospect	Dev. Pending Post-DG1	Dev. Pending Post-DG2	Undeveloped		Developed	Undev	Developed
					Post DG3	Post-DG4			
DG/Key event									
DG 2	Oct-05			0.27					
DG 3	Dec-05			-0.27	0.27				
FID	Jul-06				-0.27	0.27		0.20	
First HC	2011					-0.27	0.27	-0.20	0.20
	2012								0.00
	2013								0.00
	2014								0.00
	2015								0.00
	2016								0.00
	2017								0.00
	2018								0.00
	2019								0.04
	2020								0.00
	2021								0.00
	2022								0.03
	2023								0.00
	2024								0.00
	2025								0.00
	2026								0.00
	2027								0.00
	2028								0.00
later years									
Total		0.0	0.0	0.0	0.0	0.0	0.27	0.0	0.27

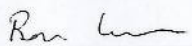
Gas [bln sm3]	Date (mm-yy)	2U Prospective Resources	2C Contingent Resources Additions		PRMS 2P Reserves Additions			SEC Proved Reserves Additions	
		Prospect	Dev. Pending Post-DG1	Dev. Pending Post-DG2	Undeveloped		Developed	Undev	Developed
					Post DG3	Post-DG4			
ARPR 31.12.2009	before last					0.63		0.20	
ARPR 31.12.2010	last					0.51		0.29	

CHECK	
developed reserves additions minus cum production	
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
7.9	4.8
6.9	6.8
6.1	5.9
5.2	5.2
4.5	4.5
3.8	3.8
3.4	3.4
3.1	3.1
2.9	2.9
0.0	0.0

negative numbers are incorrect

CHECK	
developed reserves additions minus cum production	
2P Reserves Developed	SEC Proved 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
0.01	0.19
0.03	0.24
0.02	0.22
0.02	0.19
0.02	0.17
0.02	0.15
0.02	0.13
0.01	0.12
0.01	0.11
0.01	0.09
0.01	0.08
0.01	0.07
0.01	0.06
0.01	0.05
0.01	0.04
0.01	0.03
0.01	0.02
0.01	0.01
0.01	0.00
0.04	-0.00

negative numbers are incorrect

VP Technical (or VP-X)  
Name : Lismont, Bart  
Signature : 

For RDL-RE (RXC or RXHM)  
Name : Emelle, Chima  
Signature : NGCEM3  
Digitally signed by NGCEM3  
DN: cn=NGCEM3  
Date: 2011.06.09 17:21:42  
+01'00'

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

**ESTIMATE FACT SHEET**  
**Nembe Creek FOD**  
 Nigeria

**Version 2.4** **Confidential**  
**Approved Cost & Schedule Estimate**  
 Project No.: **C11020**

Estimator: **Olaribigbe, Elias**

Planner: **Dadi, Musa**

Case: **Base**

Rates of Exchange are as per SI-SX Data Set

Market Scenario: **RV**

Estimate Type: **3**

Cost are in: **USD Millions**

Estimate Start / End: **FID Mar-2007 / RFSU May-2012**

EDM Dates **1-Jul-10**

Category	Total Costs
Facilities	36
<Wells>	180
Owners cost (incl. insurance, pre-FID, Capitalized interest)	6
Market Escalation, EPC Premium & Taxes	2
Contingency Facilities 18% <Wells> 0%	7
Inflation	3
	P10 P50 P90
Approved Total Project Estimate, MOD	205 233 280
	-12% 20%

**Assumptions:**

**OK**

**Est. and Schedule Premise**

\$1 mile of Facilities cost estimate is actual spent in 2008. Estimates for the outstanding works are based on awarded ongoing contracts. Wells cost estimate includes wells contingency by Well Engineering in line with agreed SPDC methodology. Surface Facilities P50 and P90 contingencies are deterministically derived using the TECOP tool - they have not been applied on the actuals. Rig availability is a major constraint. There is plan to contract two rigs to achieve project objective. The wells are to be flowed to three flowstations with only the flow to Nembe 4 flowstation via a remote manifold.

**Execution Strategy Premise**

Use of existing rig and facilities (flowlines and minor facilities installation) call-out contracts

**Contract Strategy**

Call-out contracts

**Key Project Risks**

Security/community issues. Poor contractor quality, funding and internal and external interface management

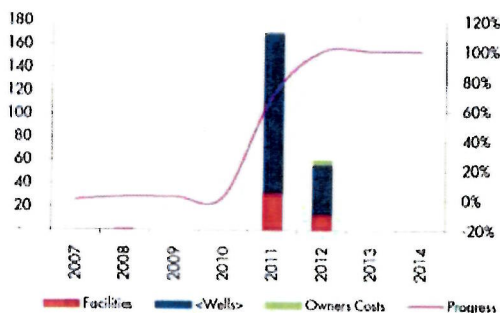
**Exclusions**

SPDC financing of interest during construction

**Benchmarking & Metrics**

Estimate is largely based on awarded contracts/POs and existing call-out contracts for similar activities

**Capex Phasing and Planned Progress:**



**Key Schedule Dates:**

Phase	Finish (P50)	Finish (P90)
FID	Mar-2007	Mar-2007
<Detailed Eng.>	Jul-2011	Jul-2011
<Procurement>	May-2011	May-2011
<Construction>	May-2012	Jun-2012
<Commissioning>	May-2012	Jun-2012
RFSU	May-2012	Jun-2012

**DCAF TA 1**  
 Date: **5/7/2011**  
 Name: **Bensley Andrew**  
 Signature: *[Signature]*  
 VP Project Services  
 Date: **5/7/2011**  
 Name: **Hans Mes**  
 Signature: *[Signature]*

**Project Manager**  
 Date: **22-06-2011**  
 Name: **Uyauko Ime**  
 Signature: *[Signature]*  
**Business Opportunity Manager**  
 Date: **22-06-2011**  
 Name: **Nwabueze Vincent**  
 Signature: *[Signature]*