The Shell Petroleum Development Company of Nigeria Limited

Internal Investment Proposal

Summary Information

<table>
<tr><td>Directorate</td><td>Technical Directorate</td></tr>
<tr><td>Group equity interest</td><td>100% in SPDC, whereas SPDC is the Joint Venture (JV) operator of an unincorporated JV with a 30% interest.</td></tr>
<tr><td>Other shareholders / partners</td><td>Nigeria National Petroleum Company (NNPC: 55%), Total E & P Nigeria Ltd (TEPNG: 10%), Nigeria Agip Oil Company (NAOC: 5%) in SPDC-JV</td></tr>
<tr><td>Amount</td><td>USD 34.97 million Shell share, MOD, 50/50
(USD 116.58 million 100% JV)</td></tr>
<tr><td>Project</td><td>Nembe Creek Phase 2 FOD (Pre FID)</td></tr>
<tr><td>Main commitments</td><td>
<table>
<tr><th></th><th>Shell Share $mln</th><th>100% JV $mln</th></tr>
<tr><td>Long Lead Items</td><td>28.58</td><td>95.25</td></tr>
<tr><td>Land acquisition & Location preparation</td><td>5.54</td><td>18.48</td></tr>
<tr><td>SCD (2.5% of total project cost)</td><td>0.85</td><td>2.85</td></tr>
<tr><td>Total</td><td>34.97</td><td>116.58</td></tr>
</table>
</td></tr>
<tr><td>Source and form of financing</td><td>Pending finalization of Alternative Funding (AF) arrangement with NAPIMS, this Pre-FID investment will be financed with JV funding and Shell share capital expenditure will be met by SPDC's own cash flow.</td></tr>
<tr><td>Summary cash flow (Shell Share)</td><td>Cost Only evaluation. Cash flow plot not applicable.</td></tr>
<tr><td>Summary economics</td><td>
<table>
<tr><th>Summary Economics (RV-RT12)</th><th>NPV7% (USD mln)</th><th>RTEP (%)</th><th>VIR7%</th></tr>
<tr><td>Pre-FID Base</td><td>-6.5</td><td>N/A</td><td>-0.24</td></tr>
<tr><td>Pre-FID High Capex</td><td>-7.8</td><td>N/A</td><td>-0.24</td></tr>
<tr><td>Full Project - Base Case</td><td>91.4</td><td>>50</td><td>1.11</td></tr>
</table>
</td></tr>
</table>

Section 1: The Proposal (Management Summary)

This pre-FID Investment Proposal is required to secure funding USD 34.97 mln Shell Share (USD 116.58 mln 100% JV) for the execution of Pre-FID activities including all the Long Lead Items required for the Nembe Creek Ph2 Further Oil Development (FOD) project.

The key business driver for this project is to increase production through new oil addition and contribute to keeping both the Niger Coastal Trunk Line (NCTL) and Soku Gas Plant full, and hence support SPDC's gas commitment to NLNG. The selected Nembe Creek Ph2 FOD concept to address this, as described in the 2012 FDP Update, consists of drilling, completion and hook-up of 8 new oil wells and 2 Recompletions, leveraging smart wells technology, to develop 73.9 MMstb (expectation recovery) of oil with 35,500 bopd initial potential.

The 10 planned wells are currently on the 2012 Short Term Drilling Sequence (STDWS) and will be drilled in a campaign with the first well to spud in Q2, 2013. While funding arrangement for the full

project scope is being finalized, preparation need to be made for location constructions and procurement of long lead materials, viz., flowlines and completion accessories. Average lead time for most of the wellhead and completion materials is 8-10 months.

Produced oil and gas from the wells will be evacuated via the four existing Nembe Creek Flowstations. The evacuation strategy is to utilise the ullage at the facility.

Table 1: Nembe Creek Ph2 FOD Pre-FID Scope-Phased Expenditure Table (MOD 100% JV)

Description	2011	2012	2013	Total
Long Lead Items (LLI's)	-	24.67	70.58	95.25
Land Acquisition for one well (200m x 200m)	-	0.16	-	0.16
Location Preparation (10 locations)	-	14.62	3.70	18.32
SCD Expenditure	-	0.99	1.86	2.85
Total	**-**	**40.44**	**76.14**	**116.58**

Mitigation plan (in case FID does not materialize in 2012 as planned):

- **Long Lead Items (LLIs for 10 planned wells):** LLI's will be used for any of a basket of projects outlined below:
    a) Southern Swamp AG Solution plus FOD (SSAGS+) (FID in March 2012).
    b) Awoba FOD Project (FID planned for August 2012 {BP11}).
    c) Awoba Northwest and Awoba NAG appraisal wells to be drilled from Q4 2012.
    d) Santa Barbara LOD Phase 2 (FID planned for March 2013 {BP11}).
- **Land Acquisition (200m x 200m**): Acquired land will be utilized whenever the FID finally materializes.
- **Location Preparation:** Planned activities and personnel will be deployed to the above mentioned basket of projects accordingly.
- **SCD Expenditure:** There is a GMoU in place in this area and this expenditure will act as a GMoU top up which will be effected just before the drilling rig moves in. Prior to rig entry to commence drilling activities, only minimal expenditure will be carried for stakeholder engagements with the various host communities.

Section 2: Value Proposition, Strategic and Financial Context

This proposed development activity aligns with SPDC's oil production growth drive and also contributes to keeping both the Niger Coastal Trunk Line (NCTL) and Soku Gas Plant full. Initial potential (sum total from the 10 wells) is about 35.5Mbopd with a peak production rate of about 25 Mbopd taking into account surface facility constraints.

Summary Economics

The Pre-FID economic evaluation was carried out as a cost-only evaluation on a forward looking basis using 50/50 level II cost estimates. Long Lead Items were treated as Capex while other costs were treated as Opex. Details are shown in Table 2 below.

Further analysis was carried out to ascertain the value of the project's full scope when the project takes FID using the 50/50 level II full project cost estimates and the incremental production forecast. The details are shown in Table 3 below.

The following sensitivities were carried out on the **pre-FID base** case to show the impact of the various scenarios on the value of the project.

- High Capex.
- 1.5% cost markup due to Benchmark Verified and Approved (BVA) issues with NNPC.

The following sensitivities were also carried out on the **full project scope** base case to show their impact on the project value.

- High and low CAPEX.
- High and Low Production
- Project with MCA Funding
- Project with ring fence (i.e. project without tax incentives).
- 1.5% cost markup provision due to dispute by NNPC on Benchmark Verified and Approved (BVA) issues.
- MCA funding

Table 2: Nembe Creek Ph2 FOD Pre-FID Economic Grid (Shell Share)

PV Reference Date: 1/7/2012	**NPV (S/S $ mln)**		**VIR**	**RTEP**	**UTC (RT $/boe)**		Payout-Time (RT)	Maximum Exposure (RT- AT)
Cash flow forward from: 1/1/2012	**0%**	**7%**	**7%**	**%**	**0%**	**7%**	(yyyy)	$mln (yyyy)
Base Case								
SV ($50/bbl & $1.30/mmbtu RT12) *								
RV ($70/bbl & $1.73/mmbtu RT12)	-5.7	**-6.5**	**-0.24**	N/A	N/A	N/A	N/A	*22.5 (2013)*
HV ($90/bbl & $2.27/mmbtu RT12) *								
Sensitivities (using RV)								
High Capex (+25%)		**-7.8**	**-0.24**				N/A	*27.0 (2013)*
1.5% Cost mark-up due to BVA issues		**-8.1**	**-0.29**					

* SV and HV same as RV as a cost only evaluation

Key Project parameter data ranges (Shell Share)

Parameter	**Unit**	**BP11 Provision**	**Low**	**Mid**	**High**	**Comments**
Capex (MOD) *	US$ mln	102.57	N/A	28.58	34.29	* BP11 Value represents Full Project scope
Opex (MOD)_Project	US$ mln	N/A	N/A	6.39	7.68	SCD and Pre-FID Opex
Production Volume	mln boe					
Start Up Date	mm/yy					
Production in first 12 months	mln boe					

Table 3: Nembe Creek Ph2 FOD Full Project Scope Economic Grid (Shell Share)

PV Reference Date: 1/7/2012	NPV (S/S $ mln)		VIR	RTEP	UTC (RT $/boe)		Payout-Time (RT)	Maximum Exposure (RT- AT)
Cash flow forward from: 1/1/2012	**0%**	**7%**	**7%**	**%**	**0%**	**7%**	(yyyy)	$mln (yyyy)
Base Case								
SV ($50/bbl & $1.30/mmbtu RT12)	104.5	**58.5**	**0.71**	>50	8.3	9.4		
RV ($70/bbl & $1.73/mmbtu RT12)	158.8	**91.4**	**1.11**	>50	8.3	9.4	2015	*60.6 (2013)*
HV ($90/bbl & $2.27/mmbtu RT12)	213.0	**124.0**	**1.50**	>50	9.0	9.4		
Oil BEP (RT $/bbl)								
Sensitivities (using RV)								
High Capex (+25%)		**86.6**	**0.84**				2015	*76.0 (2013)*
Low Capex (-15%)		**94.3**	**1.34**				2015	*51.4 (2013)*
High Reserves (P10)		**112.2**	**1.36**				2015	*60.5 (2013)*
Low Reserves (P90)		**69.0**	**0.83**				2015	*60.9 (2013)*
Project with MCA Funding		**90.8**	**0.54**				2014	*20.0 (2013)*
Project with ring fencing		**86.7**	**1.05**				2015	*71.3 (2013)*
1.5% Cost mark-up due to BVA issues		**85.2**	**0.98**					

Economics Assumptions

Pre-FID Investment

- Pre-FID evaluation is treated as a cost only.
- SCD Opex provided by the project team.
- NDDC levy 3% of total expenditure.
- Abandonment cost is estimated at 10% of total project RT CAPEX

Full Project Scope

- Oil PSVs of $50/bbl @SV-RT12, $70/bbl @RV-RT12 and $90/bbl @HV-RT12 with appropriate Bonny offset applied.
- 2012 NLNG PSV was used.
- Oil was taxed under PPT (PPT tax rate of 85%).
- Gas was taxed under CITA with AGFA incentives.
- OPEX Assumptions as follows:
    - SPDC Generic fixed OPEX assumptions was applied for the new development
        - Oil fixed - 3.0% of cum. oil CAPEX
        - Gas fixed - 3.5% of cum. gas CAPEX
    - Variable OPEX as follows
        - SPDC 31/12/2011 ARPR Variable OPEX for Nembe flow stations was used. The OPEX variable value is the average of the variable OPEX of the 4 Nembe flow stations
- NDDC levy of 3% total expenditure.
- Education tax of 2% assessable profit.
- 2.5% of the project MOD CAPEX assumed as SCD.
- GHV of 1150 BTU/Scf used.
- Gas flare penalty of $3.5 /Mscf was applied and is not tax deductible
- Abandonment cost is estimated at 10% of total project RT CAPEX.

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

- **Delay in securing Alternate Funding for project:**
  The project is being proposed for Alternative Funding (AF) arrangement and engagements with NAPIMS to reach an agreement on funding is ongoing. Any delay in securing the AF arrangement will potentially impact on the FID for full project scope. Pre-FID funding requirements will be met through usual JV funding arrangements pending conclusion of AF arrangement (DRB support has been obtained for this). A conclusive AF agreement is required to progress post-FID activities.

  Mitigation: Where a funding agreement is delayed or not reached at all, the project will be re-phased to later years when an AF arrangement can be put in place or when it can be funded from the JV base budget. In this case, acquired long lead materials can be deployed to other planned projects (reference Section 1).

- **Delay in land acquisition:**
  Delay in land acquisition will affect the timing of the location preparation and related activities in particularly and the overall project schedule in general.

  Mitigation: The sequencing of the wells will be optimised in such a way that wells not requiring new land acquisition can be drilled first to give more time for land to be acquired.

- **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: Global Memorandum of Understanding (GMoU) has been signed with the community and 2.5% of the total project cost will be used for community projects. With improvements in the Niger Delta security following the Nigeria Government 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. A project-specific Security Plan is being finalized (awaiting sign-off) by Corporate Security Team in conjunction with the Area Security Advisor. Specific threats will be managed through the Security & Surveillance Centre (SIS) and communicated in good time to those that need to "Know" and "Act" as required.

- **HSE:**
  The project is planned to be executed under challenging circumstances in the Niger Delta Eastern Swamp.

  Mitigation: A HAZID workshop has been carried out to outline key HSSE risks that could impact on the project. Resulting from this, a Project HSSE Plan (which will be supported by an ALARP demonstration) has been finalized and will be embedded in the execution plan. In addition to this, an HSE Adviser will be assigned to support its execution.

3.2 Opportunities

- **Use of existing facilities:**
  The philosophy adopted for this project is to use existing facilities as much as possible in order to reduce surface footprint associated with this project. By using existing well slots for the proposed wells, only one (1) of the 8 new wells will require new location acquisition. Also, opportunity to utilize existing flowline RoW by excavation of disused flowlines has been assessed for the project. This further reduces land take.

- **Well and Reservoir Management:**
  The planned smart well completions offer an opportunity to acquire subsurface more data that will allow effective reservoir management decisions during the future field life.

- **Proved Reserves Addition:**
  The project is expected to facilitate Proved Reserves Addition (PRA) of about 7 MMstb SS (2013)

- **Knowledge Sharing:**
  This project will provide a very good opportunity for the new Wellsite Petroleum & Well Engineers to obtain requisite operations experience under the close supervision of the more experienced operations personnel.

3.3 Alternatives

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

Section 4: Corporate Structure and Governance

The DRB overseeing this project was engaged on the 16th November 2011 and DE mandate secured to progress this pre FID investment proposal.

The Nembe Creek FOD Phase 2 project is at Define Phase. It is being managed in line with the ORP and fits within the existing SPDC corporate structure and governance framework.

The well proposals are being matured through the Global Well Delivery Process (GWDP) and, at the time of preparing this document, the draft is being reviewed for final sign-off.

Section 5: Functional Support and Consistency with Group & Business Standards

This proposal complies with Group Business Principles, policies and standards. Functional support for this proposal has been provided by Finance, Social Performance, Supply Chain Management, HSE, Production Operations & Maintenance, Legal, Treasury and Tax functions

Section 6: Project Management, Monitoring and Review

Assurance Events/Gates	Date
DG1	Jun 2006
DG2	May 2007
DG3	Apr 2008
ITR/VAR4	Sep 2012
DG4	Oct 2012
FID	Dec 2012
Spud Date for 1st well	May 2013
OSD	Dec 2013

The execution of the project is managed through the DSSE Field Development & Execution, 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

Section 7: Budget Provision

Nembe Creek Ph2 FOD is included in the BP11 base plan and incremental budget in the 2012 JV Programme. The project is being proposed for Alternative Funding (AF) arrangement and engagements with NAPIMS to reach an agreement on funding is ongoing. Offsets will be identified within the 2012 JV base budget for these LLIs pending conclusion of ongoing AF discussions. Post-FID activities will await conclusion of the AF agreement.

Section 8: Group Financial Reporting Impact

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

US$ Mln	2012	2013	2014	2015	2016	Post 2016
Total Commitment	12.1	22.8				
Cash Flow						
SCD Expenditure	0.3	0.6				
Project Opex	4.4	1.1				
Capital Expenditure	7.4	21.2				
Operating Expenditure	0.4	0.7				
Cash flow From Operations	0.9	9.0	7.3	2.2	2.2	1.6
Cash Surplus/(Deficit)	-6.5	-12.2	7.3	2.2	2.2	1.6
Profit and Loss						
NIBIAT +/-	-0.5	0.5	0.1	0.1	0.1	0.2
Balance Sheet						
Avg Capital Employed	3.0	12.3	15.1	10.4	8.3	5.9

Section 9: ESHIA

SCD Plan

Nembe communities and some other satellite communities (of Nembe Local Government Area in Bayelsa State) make up the communities in the project area. Interface with the communities will be through the existing GMoU that covers the area.

The implementation of the SCD plans for the Nembe Creek FOD Phases 1 and 2 have been deliberately made to run back-to-back. The Social Performance Team began the community engagements for these projects in Q2, 2006. All through, the community representatives were informed of the drilling campaign in Nembe Creek will comprise all planned wells for the two phases. However, there is need to review the community stakeholder engagement and social performance plans to reflect the revised schedule of the project considering the sensitivity of this area.

EIA

EIA approvals are available from both Directorate of Petroleum Resource (DPR) and Federal Ministry of Environment (FEMV). Below is specific outline of EIA approval history for the project.

FEMV: In 2001, approval was obtained for 43 wells under umbrella of Nembe FDP. Out of this scope, further revalidation was done in 2006 to cover 8-10 wells for Nembe Creek FOD Phase 1 project. In 2010, FEMV endorsed that SPDC could continue to execute further

development activities under subsisting 2001 EIA approval provided there is no change in scope. Thus, FEMV approval for project is available.

DPR: Approval for Nembe FOD was first obtained in 2008 under an umbrella of 36 legacy SPDC projects. This approval was revoked by DPR in 2010 and SPDC was requested to revalidate the EIA. Following further data gathering and EIA scope revalidation/update carried out in 2011, a new approval was obtained in Mar 2012 for Nembe Creek FDP covering Phases 1 & 2 and other associated drilling activities.

Section 10: Disclosure

Material disclosures, if any, will be done in line with the Group and SPDC Disclosure policies and guidelines.

Section 11: Financing

This investment is expected to be financed with JV Partners funding and Shell Share of capital expenditure will be met by SPDC's own cash flow.

Section 12: Taxation

There are no unusual taxation features at this stage.

Section 13: Key Parameters

The following is the main aspect of this proposal:

Approval for US$34.97 mln Shell Share (US $116.58 mln MOD 100% JV) to cover Nembe Creek Ph2 FOD Pre-FID activities costs.

Section 14: Signatures

This Proposal is submitted to UIG VP Technical for approval.

Supported by:

.....

Bernard, Bos (FUI/F)

Date ..../..../....

Approved by:

.....

Bart, Lismont (UIG/T)

Date ..../..../....

Initiator: _____

Adenaiye, Olaniyi (UIG/T/DFSS)

Date …/…./….