The Shell Petroleum Development Company of Nigeria Limited

Group 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: 10%, Nigeria Agip Oil Company (NAOC: 5%) in SPDC-JV</td></tr>
<tr><td>Amount</td><td>US$68.72 mln Shell share, MOD, 50/50 (US$229.06 mln 100% JV) plus US$6.34 mln Shell share, MOD, 50/50 (US$21.13 mln 100% JV) requested for Pre-FID element bringing the total to US$75.06 mln Shell share, MOD, 50/50 (US$250.19 mln).</td></tr>
<tr><td>Project</td><td>Soku – San Barth Liquids Pipelines</td></tr>
<tr><td>Main commitments</td><td>
<table>
<tr><th></th><th colspan="2">Pre-FID</th><th colspan="2">FID</th></tr>
<tr><th></th><th colspan="2">(US$ Mln)</th><th colspan="2">(US$ Mln)</th></tr>
<tr><th>Work Element Description</th><th>Shell Share</th><th>100% JV</th><th>Shell Share</th><th>100% JV</th></tr>
<tr><td>Engineering Design, Survey, Land acquisition & ESHIA</td><td>1.03</td><td>3.41</td><td>NA</td><td>NA</td></tr>
<tr><td>SD Engagement (SCD)/ Security</td><td>0.05</td><td>0.17</td><td>5.25</td><td>17.50</td></tr>
<tr><td>Project Management</td><td>0.27</td><td>0.92</td><td>4.48</td><td>14.93</td></tr>
<tr><td>Line pipe Procurement</td><td>4.99</td><td>16.63</td><td>NA</td><td>NA</td></tr>
<tr><td>Construction, Bulk/shortfall materials procurement & Commissioning</td><td>NA</td><td>NA</td><td>58.99</td><td>196.63</td></tr>
<tr><td>Total</td><td>6.34</td><td>21.13</td><td>68.72</td><td>229.06</td></tr>
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</td></tr>
<tr><td>Source and form of financing</td><td>This investment will be financed with JV funding and Shell share capital expenditure will be met by SPDC's own cash flow. Formal JV partners' approval will therefore be obtained.</td></tr>
<tr><td>Summary cash flow</td><td>Cost only evaluation. Cash flow not applicable.</td></tr>
<tr><td>Summary economics</td><td>
<table>
<tr><th>Summary economics</th><th>NPV7% (USD mln)</th><th>VIR7%</th></tr>
<tr><td>Base case</td><td>-14.8</td><td>-0.27</td></tr>
<tr><td>Full Life cycle</td><td>-15.8</td><td>-0.25</td></tr>
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Section 1: The proposal (management summary)

This Investment Proposal requests approval of US$ 68.72 mln Shell Share (US$ 229.06 mln 100% JV) to cater for the outstanding scope of works for the Soku Liquids pipelines (12" x 22km Soku – San Barth and 10" x 4.5km Soku flowstation – Soku pipelines). A prior amount of US$ 6.34 mln Shell Share (US$ 21.13 100% JV) had been previously approved.

The costs for route survey, land acquisition, Environmental, Social and Health Impact Assessment studies, procurement & coating of line pipes had earlier been captured as Pre-FID elements for the Soku – San Barth Liquids Pipelines.

The main objectives of the projects are:

a. Guarantee oil production from Soku flow station.
b. Provide and guarantee export conduit for produced condensate & oil from Soku LGSP and Soku flowstation respectively.

The Soku Liquids pipelines are described below:

- **Pipeline Number 1:** 12-inch x 22 km liquids export pipeline from Soku gas plant to Nembe Creek Trunk Line junction manifold at San Barth.
- **Pipeline Number 2:** 10-inch x 4.5 km oil pipeline from Soku flow station to Soku gas plant.

Pipeline Number 1 is required to evacuate current and future liquids (mostly condensate) production from the Soku gas plant following extensive damage to the condensate export pipeline by condensate thieves. At present, condensate is exported from the Soku gas plant by injecting it into the EGGS-1 gas pipeline at Soku and receiving it at NLNG facilities. This mode of condensate evacuation takes up gas export capacity from EGGS-1 and is putting a strain on NLNG liquid handling facilities. When the Kolo Creek to Soku development and the Soku NAG compression system are operational, there will be an additional 28,000 bbl/d going into Soku gas plant. If this volume of liquids is injected into EGGS-1, it will take up even more gas capacity from EGGS-1 and the liquid handling facilities at NLNG will be unable to process this additional liquid production. In addition to the gas capacity issues, the agreement with the Department of Petroleum Resources prior to their approval of the condensate spiking into EGGS-1 was that a permanent condensate evacuation means will be installed by 2014. It is therefore required to find an alternative export route for the condensate from Soku to free EGGS-1 capacity and to comply with the agreements with the regulator.

Pipeline Number 2 is required to convey crude oil from Soku flow station to mix with the condensate to make it less attractive to condensate thieves. Pure condensate is very attractive to thieves and condensate mixed with crude is less so. This is part of a series of planned measures to provide security for liquid evacuation from Soku and hence security of gas supply.

The execution of the Ekulama – Soku Associated Gas Pipelines scope was formally transferred to UIG/T/P following Decision Review Board (DRB) approval in Q4 2010 and based on an acceleration strategy for the works which required the decoupling the Associated Gas pipelines scope from the integrated package inclusive of the Soku Liquids pipelines. The decision was aimed at fast tracking the delivery date of the Ekulama – Soku AG Pipelines to Q4 2012, whilst technical proposals to prevent tampering of the Soku – San Barth pipelines were still being considered.

DRB & UIGLT supported that all pipelines should be executed by a single Contract in order to get the best value from the point of synergy.

The investment proposal for the Ekulama – Soku AG pipelines had been previously approved.

The overall project expenditure phasing is summarised in the table below and the expenditure phasing has been revised to cater for the Soku – San Barth Liquids pipelines as follows:

Table 1: Project Expenditure Phasing (US$ Mln MOD 50/50)

Description	2012	2013	Total
12" x 22km Soku Gas Plant – San Barth Liquids Line.	106.88	87.45	**194.33**
10" x 4.5km Soku flowstation – Soku Gas Plant Line.	19.10	15.63	**34.73**
TOTAL	**125.98**	**103.08**	**229.06**

Section 2: Value proposition and strategic and financial context

- **Alternative to Greater Port Harcourt Swamp Line**
  The Soku – San Barth pipeline project is being progressed as the alternative to the Greater Port Harcourt Swamp Line (GPHSL) to provide export route for the oil from Soku flowstation and subsequent liquids (condensate & oil) that will be produced/evacuated from the Soku Gas Plant.

- **Permanent means of liquids evacuation**
  The GPHSL had long been rendered unusable for a myriad of factors and Soku field being strategic to the gas production & export aspiration of SPDC would urgently require the Soku – San Barth pipelines as the permanent solution to evacuate both produced oil & condensate from Soku field. Furthermore the technically feasible solution of deep burial that has been adopted to prevent bunkering and criminal intrusions of the pipelines should guarantee unhindered production availability of Soku and other associated fields.

- **Adherence to Statutory Requirement (LTO)**
  Condensate is currently being managed by spiking of condensate into the export gas stream at the Soku Gas Plant via the Eastern Gas Gathering System Phase 1 (EGGS-1) to the Nigerian Liquified Natural Gas Plant (NLNG) at Bonny based on the temporary waiver granted by the Directorate of Petroleum Resources (DPR) to SPDC, which lapses in 2014. The current and temporary practice of spiking of condensate is not operationally sustainable in the long term given the fact that spiking would constrain the possibility of increased gas export via the EGGS-1 for hydraulic reasons and could negatively impact upcoming projects which require ullage in the Gas line for export to NLNG.

- **Strategic Benefits to other upcoming projects**
  Furthermore the other upcoming projects such as Kolo Creek to Soku, Soku Oil Rim Development (ORM) & Soku NAG Compression will benefit from the execution of this project. In view of that, they would be impacted if the project is not accelerated as a result of the condensate management challenge.

- **Post Flares out solution for other fields**
  Another key & significant benefit of the 12" x 22km Soku – San Barth pipeline is that post 2012 when the flares out deadline would have taken effect, outlying asset fields which export their associated gas to Soku Gas Plant for processing & export: Nembe, Santa Barbara & Ekulama may have to be shut-in for regulatory compliance reasons if a permanent liquids export solution does not come on stream.

- **Safeguard of the Soku oil rim reserves**
  Progressing the project will also ensure the release of the precious Soku oil rim reserves since the gas pressure cap will be available to sustain oil production due to the acceleration of the on-stream date of the Soku flowstation.

- **Fast track of Project Execution**
  The fast track proposal adopted is to execute the works by latching onto the existing contract E-16647 (Nembe Creek Trunkline Package A) as a variation order. The existing opportunity is premised on the fact that the contract is being used to progress the Ekulama – Soku AG pipeline works, which has similar work scope and is being executed around the same area. Other benefits that will also accrue include significant cost reduction advantage for joint execution synergy & minimised HSE risks during simultaneous construction works.

Summary Economics

The FID economics for the Soku Liquids pipelines (12" x 22km Soku – San Barth and 10" x 4.5km Soku flowstation – Soku pipelines) was evaluated as a cost only Oil and Gas infrastructure (OGI) on a forward looking basis project using the 50/50 level III cost estimate.

Sensitivities were carried out to show the impact of Low and High CAPEX on the project as provided by the project team, and the value of the project with ring fencing. Additional sensitivities carried out include project's full life cycle (FLC), 1.5% cost mark up due to BVA (benchmarked verified and approved) issues, and the value of NFA volume at risk in Soku F/S, Soku Gas Plant, and Ekulama 1 & 2 F/S. The value at risk sensitivity does not include the value of further oil development and other ongoing projects that will utilise the pipelines. The project's value under the proposed Petroleum Industry Bill (PIB) version 12.0 is also presented. The detailed results of the analyses are shown in Table 2 below.

Table 2: Economics Grid (Shell Share)

PV Reference Date: 1/7/2011	**NPV (S/S $ mln)**		**VIR**	**RTEP**	**UTC (RT $/boe)**		**Payout-Time (RT)**	**Maximum Exposure (RT)**
Cash flow forward from: 1/1/2011	**0%**	**7%**	**7%**	**%**	**0%**	**7%**	**yyyy**	**mln**
Base Case								
RV-RT ($70/bbl RT11)*	-11.1	**-14.8**	-0.27	NA	NA	NA	NA	US$ 51.59 mln (2013)
Sensitivities (on base case)								
Low Capex (-10%)		-13.3	-0.27					US$ 46.07 mln (2013)
High Capex (+15%)		-17.1	-0.26					US$ 59.88 mln (2013)
Project with ring fencing		-63.6	-1.14					US$ 74.84 mln (2036)
FLC		-15.8	-0.25					US$ 52.54 mln (2013)
1.5% FID cost mark up due to BVA issues		-17.9	-0.30					
Value @ risk**		466.3	NA					
PIB		-25.5	-0.46					

Note: *Same result applies to SV-RT and HV-RT since there is no revenue stream.
**** Value at risk for NFA only. Further oil develpoment and new projects that will utilise the pipelines were not considered.**

Key Project Parameter Data Ranges (Shell Share)

	Unit	Bus Plan BP10	Low	Mid	High	Comments
Capex (MOD)	US$ mln	NA	57.1	63.5	73.0	No provision in BP10. Low & high based on Capex sensitivity.
Opex (MOD)	US$ mln	NA	5.3	5.3	5.3	SCD
Production volume	Mmboe	NA	NA	52.8	NA	For value at risk
On-stream Date	mm/yyyy	Jan-14	NA	Jan-14	NA	

Economics Assumptions

Base Case

- 10% of total project RT CAPEX treated as abandonment cost.
- Project SCD Opex applied and treated as Opex.
- SPDC generic fixed Opex for new lines
- NDDC levy 3% of total expenditure.
- Facility life span of 20 years.

Value at Risk

- Oil PSV of $70/bbl RT11.
- Condensate was taxed as Oil with CITA and AGFA incentives to gas.
- ARPR 31/12/2010 variable OPEX was used.
- Flare Penalty of US $3.5/mscf non-tax deductible.
- GHV of 1150Btu/scf.
- NDDC levy 3% of total expenditure.
- Education tax of 2% assessable profit.
- Facility life span of 20 years
- NDDC levy 3% of total expenditure

PIB (House Version 12.0) Assumptions

- CIT is 30% of taxable income.
- Depreciation schedule for qualifying expenditure is 4 x 20% and 19%.
- NDDC levy calculated as 3% of total expenditure.
- Withholding tax is applicable at a rate of 7.5%.
- 10% of total project RT CAPEX treated as abandonment cost.
- Project SCD Opex applied and treated as Opex.
- Facility life span of 20 Years.
- Overseas Capex fraction assumed at 60%.

Section 3: Risks, opportunities and alternatives

Risk	*Planned Mitigation*
Funding constraints	Funding requirements will be met through the usual JV funding arrangements. Provision for funding of some elements of the works (design, coating etc.) are already captured BP10 JV Base budget, whilst funding for subsequent years shall be made by timely regular engagements of JV Partners.

Continued insecurity in the Niger Delta region	Mitigation for this risk is handled at a corporate and Nigerian National level and, if situation persists, a robust security provision/plan has been made incorporating recent experiences from projects around the same area (NCTL & EGGS-2) to forestall negative impact on project schedule and first gas date. Furthermore, prior to mobilization for construction works, a detailed/fit for purpose security plan will be developed in conjunction with the Security Department.
Community Issues	There is very little uncertainty in terms of local knowledge of the communities that will be traversed by the pipeline project. Effective SD Management strategy shall be deployed to address this risk and minimise attendant delays which may lead to cost escalations. More importantly the local Contractor being proposed for execution has a very good system to manage community issues with SPDC's support. Robust SCD costs have been properly captured in the cost estimates.
Cost escalation	Though contract cost escalation due to security challenges is a key risk especially in the Niger Delta, but this risk shall be addressed by benchmarking requirements with realities on recent/similar projects, which were successfully executed during the most volatile period of 2005 – 2009. Contingency employed is 16% in the cost estimate.
Nigerian Content	NCD risk in this proposal is very minimal; most of the line pipes are from surplus Shell Nigeria Gas 12-inch pipes which are in-country, whilst NCDMB has approved imports of shortfall line pipes. The construction/commissioning Contractor for the works (NESTOIL) is fully Nigerian owned and competent having executed and completed the NCTL. Contractor is currently engaged on the Ekulama – Soku AG pipeline and 8" Belema delivery line replacement works with good progress.

Section 4: Corporate structure, and governance

The existing corporate structure and governance arrangements of SPDC-JV with SPDC as operator still subsist for this investment.

Section 5: Functional Support and consistency with Group and Business Standards

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

Section 6: Project management, monitoring and review

There is an identified Decision Executive, Business Opportunity Manager, Project Manager and Operations Manager. The existing Major Projects decision Review Board will control any major change proposals and will monitor value delivery based on (PERT) reviews. Projects & Technology oversight will be exercised through membership of the technical DRB.

Section 7: Budget provision

Budget provision has been made for PRE-FID elements in JV Base budget for 2011. Budget shall be sourced for funding in subsequent years from JV partners. Notwithstanding, support for the project funding has favourable hearing of JV partners due to proactive engagements.

Section 8: Group financial reporting impact

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

US$ Million	Prior Years	2011	2012	2013	2014	2015	Post 2015
Total Commitment	**0.48**	**5.86**	**37.80**	**30.92**			
Cash Flow							
SCD Expenditure	0.01	0.04	2.89	2.36			
Pre-FID Expenditure	0.47	5.82					
Capital Expenditure			34.91	28.56			
Operating Expenditure	0.03	0.21	4.02	3.29			
Cash flow From Operations		3.27	1.43	9.78	7.74		
Cash Surplus/(Deficit)		(2.54)	(33.48)	(18.78)	7.74		
Profit and Loss							
NIBIAT +/-		0.17	1.10	1.32			
Balance Sheet							
Avg Capital Employed		1.36	20.00	47.34	53.53	49.65	49.65

Section 9: Disclosure

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

Section 10: Financing

The FID portion of this investment will be financed with JV funding and Shell Share capital expenditure will be met by SPDC's own cash flow.

Section 11: Taxation

Completion of the Ekulama AG and Soku Spur pipelines should have appropriate tax treatment in line with statutory requirements.

Section 12: Key Parameters

Approval is sought for US$68.72 mln Shell Share to complete the entire scope of the project**:** Design, Construction/commissioning, Sustainable Development, provision of security and entire scope of Project Management for the Soku Liquids pipelines (12" x 22km Soku – San Barth and 10" x 4.5km Soku flowstation – Soku pipelines).

Signatures

This Proposal is submitted to EVP, Sub-Saharan Africa for approval.

Supported by:

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Bernard Bos

(VP Finance Africa, FUI/F)

Date:..../..../....

For Business approval:

.....
Ian Craig

(EVP, Sub-Saharan Africa, UIG)

Date:..../..../....

.....
Initiator: Niyi Salami, UIG/T/PPL

(SPDC-UIG/T/PPL)

Date:..../..../....