The Shell Petroleum Company Limited

Group Investment Proposal

Summary Information

<table>
<tr><td>Business unit and company</td><td>Technical Directorate</td></tr>
<tr><td>Group equity interest</td><td>100% in SPDC. Shell is the JV operator of an unincorporated Joint Venture with a 30% interest.</td></tr>
<tr><td>Other shareholders / partners</td><td>Nigerian National Petroleum Corporation (NNPC: 55%); TotalFinaElf (10%); and Nigeria Agip Oil Company (NAOC: 5%).</td></tr>
<tr><td>Business or Function</td><td>Exploration & Production (EP)</td></tr>
<tr><td>Amount</td><td>US$35.25 mln Shell share (50/50, MOD), US$ 117.5 mln 100% JV for which US$29.22mln Shell Share is CAPEX and US$6.06 mln Shell Share is OPEX</td></tr>
<tr><td>Project</td><td>Rehabilitation of Bonny Terminal Crude Storage Tanks</td></tr>
<tr><td>Main commitments</td><td>
<table>
<tr><td colspan="3">This Proposal (US$ mln) 50/50 MOD</td></tr>
<tr><td>Description</td><td>100% JV</td><td>Shell Share</td></tr>
<tr><td>Tank Rehabilitation Work</td><td>85.4</td><td>25.62</td></tr>
<tr><td>Statutory Inspection Cost</td><td>18.5</td><td>5.55</td></tr>
<tr><td>14% Contingency</td><td>11.96</td><td>3.59</td></tr>
<tr><td>2% SCD</td><td>1.7</td><td>0.51</td></tr>
<tr><td>Total</td><td>117.56</td><td>35.27</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 and/or existing shareholder facility. Formal JV partners' approval will therefore be obtained.</td></tr>
<tr><td>Summary cash flow</td><td>Not applicable as analysis is cost only</td></tr>
<tr><td>Summary economics</td><td>The project (Rehabilitation of Bonny Terminal crude storage tanks) was evaluated purely as an infrastructure project to assess the impact on cash flow on a forward-looking basis. The project returns an NPV 7% US$-7.11mln (Shell share) with an associated maximum exposure of US$14.42mln in 2013.</td></tr>
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Section 1: The Proposal

Management Summary

This investment proposal seeks approval for US$35.25 mln Shell share (50/50, MOD), US$ 117.5 mln 100% JV to cover full rehabilitation, statutory inspection repair / modification works and the hook up of crude storage tanks to the new plant in Bonny terminal.

The Bonny terminal was recently upgraded under the Bonny Terminal Integrated Projects (BTIP) with objectives to increase its throughput capacity to 1.5Mbbl/day, restore its technical integrity and guarantee a high level of availability for another twenty-five years. Part of the plan to achieve these was constructing two new tanks and fully rehabilitate /modify for hook up to the new process plant, all existing twenty crude storage tanks. This plan was only partially achieved as only fourteen tanks - T2, 8, 9, 11, 12, 13, 15, 17, 18, 19, 20, 21, 22 & 23 – have been either fully /partially rehabilitated and only the substantial part of materials required for the new tanks construction (T24 & 25) have been procured. Also achieved is the statutory inspect / repair of the tanks done every five years. To note is that only about US$106mln (100%JV) out of the US$260mln (100%JV) provision made for tanks rehabilitation and construction in the Bonny Terminal Integrated Project (BTIP) Investment Proposal was expended as BTIP has been wound down. Details to this are provided in the appendix.

Currently in Bonny Terminal, the tanks in service achieve about 240Kbbl/day (net) capacity based on continuous dehydration mode; only the integrity and availability of five tanks (T17, 18, 19, 21 & 22) are assured as no significant refurbishment work has been carried out on the tanks since the terminal commenced operation in 1963.

In the recent past, two of the tanks have collapsed and the root cause traced to technical integrity.

The cost phasing for schedule works is as below:

Table-1: Cost Phasing US$mln (50/50) MOD

Description	2010	2011	2012	2013	2014	100% JV	Shell Share
Tank Rehabilitation Cost	20.4	21.2	21	15	7.8	85.4	25.6
14% Contingency	2.9	3	2.9	2.1	1.1	11.96	3.58
Sub-Total Capex	**23.3**	**24.2**	**23.9**	**17.1**	**8.9**	**97.4**	**29.22**
2% SCD	0.4	0.4	0.4	0.3	0.2	1.7	0.51
Statutory Inspection Cost (OPEX)	4	3.4	3.7	3.7	3.7	18.5	5.55
Sub-Total Opex	4.4	3.8	4.1	4	3.9	20.2	6.06
Total	**27.7**	**28**	**28**	**21.1**	**12.8**	**117.56**	**35.27**

Section 2: Value Proposition and Strategic and Financial Context

The Bonny terminal tank rehabilitation project is necessary to guarantee integrity of the existing crude storage tanks, ensure compliance with Statutory and Group requirements on tank inspection and maintenance, which stipulates carrying out tank inspection and maintenance every five years.

Executing the proposed tank inspection and rehabilitation works will give the following benefits

- Increase Bonny terminal crude storage tank capacity from the current 240Kbbl/day to about 360Kbbl/day (net), thereby allowing the terminal to produce its limit.
- Restore 100% availability, reliability and technical integrity of the storage tanks.
- Reduce to ALARP the risk of failure to process the crude received at the Terminal, thus ensuring uninterrupted export operations at the Bonny Terminal.
- Ensure SPDC compliance with DPR Statutory Regulations.
- Prevent environmental pollution and consequent cost of clean-up/remediation
- Safeguard SPDC/Group reputation/image.
- Demonstrate commitment to maintenance of asset integrity.
- Prevent agitation and demand for compensation by host communities. In this regard, tendering as approved by SPDC management is progressing in parallel with the processing of subject GIP.

Summary Economics

The project was evaluated as an Oil Facility project to assess the impact on cash flow on a forward-looking basis. The statutory inspection cost is treated as Opex while the full rehabilitation works is treated as Capex. The project returns an NPV 7% US$-7.14mln (Shell share) with an associated maximum exposure of US$14.42mln in 2013.

Details to the economic evaluation is shown in the economics grid below.

Table 2: Economics Grid for Rehabilitation of Crude Storage tanks in Bonny Terminal

PV Reference Date: 1/7/2010	**NPV (S/S $ mln)**		**VIR**	**RTEP**	**UTC (RT $/boe)**		**Payout-Time (RT) year**	**Maximum Exposure (RT) $mln**
Cash flow forward from: 1/1/2010	**0%**	**7%**	**7%**	**%**	**0%**	**7%**		
Base Case								
SV ($50/bbl RT 10)	-5.18	**-7.11**						
RV ($60/bbl RT 10)	-5.18	**-7.11**	-0.28	NA			NA	14.42 (2013)
HV ($80/bbl RT 10)	-5.18	**-7.11**						
BEP (RT $/bbl)								
Sensitivities (using RV)								
High Capex		**-14.11**	-0.46					17.18 (2013)

Key Project Parameter Data (Shell Share)

Parameter	*Unit*	**BP09**	**Low**	**Mid**	**High**	**Comments**
CAPEX (MOD)	US$mln	9.60	NA	29.22	35.06	High = +20% base
OPEX Investment (MOD)	US$mln	0.48	NA	6.06	NA	
Production volume	Mmbbl	N/A	N/A	N/A	N/A	
Commission Date	mm/yyyy	N/A	N/A	NA	N/A	
Production in first 12 months	MMboe	N/A	N/A	N/A	N/A	

Economic Assumptions

- Project cost is treated as Oil Facility Capex
- NDDC levy applied at 3% total expenditure

Section 3: Risks, opportunities and alternatives

Risks

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

S/N	**Risk Description**	**Mitigation/Remedial Effort**
1	**Technical / Operational**	Full scope of the tank rehabilitation can only be determined on site when each tank has been taken out of service, desludged/cleaned and then inspected in accordance with API 653. To take care of the potential additional scope, a contingency provision of about 10% on the tank rehabilitation cost estimate has been included in this IP budget proposal.
2	**Budget/NAPIMS Approvals** Inadequate/delay in providing budget for 2010 activities.	Inadequate or delay in providing adequate budget for the 2010 - 2014 activities could prevent the refurbishment of the tanks and further exposure to failures and release of hydrocarbon to the environment. In view of the strategic importance of the BONNY TERMINAL tanks to the oil & gas operations in SPDC-East, and given the highly compromised technical integrity of the tanks, it has become very urgent to proceed with the execution of the project in this proposal without further delays under the emergency procedure of the Joint Operating Agreement (JOA) of the JV. However, we shall continue to engage NAPIMS to secure their support/buy-in for their own counterpart funding, and where necessary, this shall be escalated to the topmost management of NNPC for resolution, and we are confident that this will be achieved.
3	**HSE Risk** Pollution and harm to people.	SPDC HSE policies will be strictly adhered to during the execution of all work. Mandatory Hazard and Effects Management Process (HEMP) activities will be carried out with a risk register (including security) to be developed for the work scope including contracted activities. Detailed job hazard analysis will be done prior

S/N	Risk Description	Mitigation/Remedial Effort
	Structural failure, Loss of ISO 14001 certification, Loss of production (LTO), Image and reputation issues	to commencement of high HSE risk work. Rigorous use of HEMP and other tools to control hazards will be deployed during the project execution. Contractor management for the execution of the site works will be in accordance to guidelines in Group standard EP 2005-0110 Contractor HSE Management.
4	**Security** Project being affected by current security situation in Niger Delta.	It is planned that this project will be executed in full compliance with the corporate security regulations for operating in the field. An approved security plan for this project will be put in place. The Security Plan shall be developed and strictly applied through all phases of the project. The work will be done within the Bonny Terminal boundary, thereby benefiting from the existing security arrangement in the terminal. The contractor will have own security arrangement acceptable to SPDC security officer.
5	**Community** Risk of community disruption of project execution.	SPDC HSE and SCD policies will be strictly adhered to with a view to minimize the risk of disruptions. The project team would maintain a harmonious relationship with the host community in line with what currently exists between SPDC and the Bonny Kingdom. Towards this, the BT Community Development Officer (CDO) will be the primary contact between the Community and the Project Team. The Community Development (CD) contributions of the project will be outlined in the **CD/CR Plan** in conjunction with CDO in order to secure Freedom To Operate for the contractors. Key of this outline would include: • Donation of one facility of the choice of the community, within an acceptable value limit of the project cost; • Achievement of 70% indigenous population on both semi and unskilled labour force; • Preference of the community contractors for subcontracting on the project. A maximum sum of 2 % of cumulative CAPEX is provided for execution of SCD projects.
6	Safety	To mitigate the risk of safety to plant, equipment and personnel working in a live hydrocarbon plant with concurrent operations. The Permit-to-work system shall be strictly adhered to. A concurrent operations plan shall be developed as part of the project HSE management plan.

Opportunities

- Ensure continuity in meeting statutory obligations on integrity of the oil and gas infrastructures.
- Ensure continued maximum capability for export of crude oil at the terminal

Alternatives Considered

- Do Nothing: Failure to execute this project would imply that the anticipated opportunities would not be realised. This ultimately will mean attendant revenue loss for SPDC, JV and the stakeholders. Failure to comply with the statutory inspection and refurbishment has adverse impact on the reputation of the Company, with possible consequence of sanction by the regulatory authority.
- Phase the activities between 2010 and 2014: Phasing the activity seemed the optimum alternative and it is the proposed option that is being pursued.

Section 4: Corporate structure, and governance

This project fits within the existing SPDC corporate structure and governance.

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

This proposal is consistent with overall SPDC and Group strategy and objectives on asset integrity and in accordance with SPDC 2010 – 2014 Business Plan.
The proposal obtained regional functional support (HSE/SD, Legal, Tax, Treasury).

Section 6: Project management, monitoring and review

Monitoring and Review

The Project status will be reported weekly and monthly to SPDC Management, and at Major Projects Quarterly Management Review Meeting with JV Partners. A project quality management plan is being developed and this will be cascaded to the successful contractor/sub-contractors for their guidance and compliance. Monitoring and reviews shall be carried out in line with the project quality plan. In line with Group and SPDC guidelines for the management of major projects, the project will be subject to periodic PERT reviews.

HSE Management

A project HSE Management Plan is being developed, consistent with SPDC's HSE Management System and the Group HSE-MS. Contractor management for execution of the work will follow the EP 2005-0110 Contractors HSE Management standard to ensure continuous HSE performance improvement.

In view of the current security situation in Niger delta, a project-specific security plan incorporating all the potential hazards relating to this development and how they will be addressed will be developed for use during the project execution.

Section 7: Budget Provision

The required budget for 2010 activities has been sourced, agreed with JV partners, and included in 2010 business plan. Budget for subsequent years will be sourced and agreed with JV partners

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	2010	2011	2012	2013	2014	Post 2014
Total Commitment	8.31	8.40	8.39	6.33	3.84	0.00
Cash Flow						
SCD Expenditure	0.11	0.10	0.10	0.10	0.10	0.00
Statutory Inspection OPEX	1.21	1.04	1.12	1.10	1.07	0.00
Capital Expenditure	6.99	7.26	7.17	5.13	2.67	0.00
Operating Expenditure	0.25	0.25	0.25	0.19	0.12	0.00
Cash Flow from Operations	0.79	2.34	3.51	4.41	4.80	8.93
Cash Surplus/(Deficit)	(6.2)	(4.9)	(3.7)	(0.7)	2.13	8.93
Profit and Loss						
NIBIAT +/-	0.11	0.19	0.22	0.17	0.10	(5.0)
Balance Sheet						
Average Capital Employed	4.30	12.92	21.52	28.84	33.43	133.97

Section 9: Disclosure

Disclosures, if required, will be done in line with existing Group and SPDC policies and guidelines.

Section 10: Financing

SPDC's capital expenditure is financed from a combination of its own cash generation and further drawing on the existing shareholder facility

Section 11: Taxation

The project was treated as an oil project. Capital expenditure is tax deductible at the statutory rate of 85% under the Petroleum Profit Tax Act 2004. Fiscal depreciation is given over 5 year's straight line with 1% retention in the fifth year. In addition, a one off investment allowance of 5% is claimable on the capital expenditure

Section 12: Key Parameters

The key parameters of this proposal are as follows:

- Tank rehabilitation works / Contingency for US$29.22 mln Shell Share.
- Statutory Inspection /SCD for US$6.06 mln Shell Share

Section 13: Signatures

This Proposal is submitted to EPG CEO for approval.

Supported by:	For Business approval:
.....	.....
Bernard Bos	**Ian Craig**
FUI/F	UIG
Date ..../..../....	Date ..../..../....

Initiator: _____

I.E. Dibua EPG-TPPT

APPENDIX: BREAKDOWN TO EXPENDITURE

S/N	TANK	WORK SCOPE TYPE	PREVIOUSLY SPENT USD$Mln 100%JV	THIS PROPOSAL USD$ Mln 100%JV
1	2	Not in Plan	6.75	0.00
2	5	Full Rehabilitation and Modification Works	0.00	10.40
3	6	Tank Integration	2.85	2.32
4	7	Not in Plan	0.00	0.00
5	8	Full Rehabilitation	3.08	11.00
6	9	Full Rehabilitation	3.08	9.30
7	10	Not in Plan	0.00	0.00
8	11	Full Rehabilitation	5.75	11.00
9	12	Not in Plan	6.75	0.00
10	13	Full Rehabilitation	5.75	11.00
11	14	Full Rehabilitation and Modification Works	0.00	13.00
12	15	Not in Plan	3.99	0.00
13	16	Full Rehabilitation and Modification Works	0.00	13.00
14	17	Statutory Inspection Repairs	3.95	3.70
15	18	Statutory Inspection Repairs	6.73	3.70
16	19	Statutory Inspection Repairs	3.95	3.70
17	20	Full Rehabilitation	4.75	11.00
18	21	Statutory Inspection Repairs	6.53	3.70
19	22	Not in Plan	16.25	0.00
20	23	Not in Plan	7.25	0.00
21	24	Not in Plan	8.50	0.00
22	25		8.50	0.00
23	601B (emulsion)	Full Rehabilitation	1.59	0.00
		SUBTOTAL	**106.00**	**106.82**
		SCD (5%)	NA	**5.34**
		CONTINGENCY (5%)	NA	**5.34**
		Total	NA	**117.50**