

The Shell Petroleum Development Company of Nigeria Limited

Internal Investment Proposal

Summary Information

Directorate	Technical Directorate		
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	Nigeria National Petroleum Corporation (NNPC: 55%), Total: 10%, Nigeria Agip Oil Company (NAOC: 5%) in SPDC-JV		
Business or Function	Upstream International		
Amount	USD 2.28 mln Shell share, MOD, 50/50 (USD7.61 mln 100% JV)		
Project	Well Location Fencing - East		
Main commitments		Shell Share \$mln	100% JV \$mln
	Well Location Fencing - East	2.23	7.46
	SCD	0.05	0.15
	Total (Shell Share)	2.28	7.61
Source and form of financing	This investment will be financed with JV funding and Shell share capital expenditure will be met by SPDC's own cash flow.		
Summary cash flow	Not applicable. Cost only evaluation.		
Summary economics	Summary economics (Shell Share)	NPV7% (USD mln)	VIR7%
	Base case	-0.5	-0.26

Section 1: The proposal

Management Summary

This investment proposal seeks approval of US\$2.28mln Shell share (US\$7.61mln 100% JV) over a three year period (2011 – 2013) for the blockwork fencing of 63No well locations in the Eastern Division of SPDC to forestall vandalism of the wellheads and third party encroachment on SPDC land.

The locations were originally constructed with barbed wire fence about 20 years ago but the barbed wire fences have been vandalised at all the locations. As a result, there are rampant cases of unauthorised access, third party encroachment on SPDC land and wellhead vandalism with associated production deferment and asset integrity problems. There are also cases of host community children embarking on recreational swimming in location waste pits/borrow pits and this, if uncontrolled could result in drowning and community agitation. Furthermore, Agbada field where some of these wells are located is within the New Greater Port Harcourt City. There is therefore an urgent need to fence all the wells in the field and secure them against encroachment from ongoing developments in the new city. The project will cover wells in Land 1 Asset Area (Agbada, Obigbo, Umuechem and Obele fields) and Land 2 asset area (Etelebou, Oguta and Ahia). Details of the scope of works planned to be executed under this proposal is presented in **Appendix I**.

Section 2: Value proposition and strategic and financial context

The business requirement to fence the wells is captured in the business plan for 2011 and beyond. The fencing of these wells will achieve the following objectives:

- Prevent third party encroachment on SPDC land from communities and ongoing development, including the Greater Port Harcourt City Development by the Government
- Prevent unauthorised access
- Prevent third party vandalism of wellheads
- Forestall recreational swimming in waste pits/borrow pits within the locations

These projects are HSE critical as the fencing of the wells will prevent unauthorised access. The works will also prevent vandalism of wellheads and third party encroachment on SPDC land. The works will enhance SPDC corporate image among the host communities by providing contract opportunities for community contractors and employment opportunities for members of the host communities. The project cost phasing is presented in **Table 1** below.

Table-1: Cost Phasing (Shell Share)

Project	US\$ mln (MOD, Shell Share)			
	2011	2012	2013	Total
Well Location Fencing East	0.61	0.83	0.84	2.28
Total – Shell Share	0.61	0.83	0.84	2.28
100% JV	2.04	2.76	2.81	7.61

Summary of Economics (Shell Share)

The FID economics for the Well Location Fencing IP was evaluated as a cost only Non-Oil and Gas (NOGI) infrastructure project using the 50/50 project level III cost estimate.

Sensitivities were carried out on the project cost to show the impact of low and high CAPEX, and 1.5% cost mark up due to BVA (benchmarked verified and approved) issues. The details are shown in table 2 below.

Table 2: Economics Grid (Shell share)

PV Reference Date: 1/7/2011	NPV (\$/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)*	-0.4	-0.5	-0.26	NA	NA	NA	NA	US\$ 1.41 mln (2013)
Sensitivities (on base case)								
Low Capex (-10%)		-0.5	-0.26					US\$ 1.27 mln (2013)
High Capex (+15%)		-0.6	-0.26					US\$ 1.62 mln (2013)
1.5% FID cost mark up due to BVA issues		-0.6	-0.29					

*Note: Same result applies to SV-RT and HV-RT since there is no revenue stream.

Key Project Parameter Data (Shell Share)

	Unit	Bus Plan	Low	Mid	High	Comments
		BP10				
Capex (MOD)	US\$ mln	2.2	2.0	2.2	2.6	Provided in BP10. Low & high based on Capex sensitivity.
Opex (MOD)	US\$ mln	0.05	0.05	0.05	0.05	SCD
Production volume	Mmboe	NA	NA	NA	NA	
Start Date	mm/yyyy	Jun-11	NA	Jun-11	NA	

Economics Assumptions

- Full project 50/50 cost estimates treated as CAPEX
- Project specific SCD Opex applied and treated as Opex
- 10% of total project RT CAPEX treated as abandonment cost.
- Infrastructure life span of 20 Years.
- NDDC levy 3% of total expenditure.

Section 3: Risks, opportunities and alternatives

Alternatives considered

Do Nothing: Failure to execute these projects would expose SPDC land to further encroachment. It will also create room for unauthorised access, vandalism of wellheads and recreational swimming in location waste pits with attendant HSE and asset integrity problems.

Execute the entire backlog activities in 2011. In view of the HSE implication of the unfenced locations; this option appears viable. However given the high number of unfenced wells it is not possible to fence all the wells within one year. Consequently, this option may not be the optimum (best) alternative.

Phase the backlog activities between 2011-2013- Phasing the backlog activity appears to be the optimum alternative. This emerged from the ranking exercise carried out jointly with the Asset Teams.

Risks

The following are three risk categories associated with the execution of this project. Update risk section, hence making it relevant to this project.

S/N	Risks Category	Risk Description	Mitigation/Remedial Effort
1	Commercial	Delay in project execution due to inadequate payment to contractors	Prompt processing of contractors work completion certificate for value of work done
		Delays in Internal & External approvals	Prompt and continuous engagement of internal stakeholders and JV partners will be ensured throughout the project execution.
2	Technical / Operational	Limited capacity of Indigenous/community contractors to deliver high quality works	Provision of experienced personnel for the project and rigorous supervision of contractor using all available project management tools.
3	HSE Risk	HSE hazards and Interface problems with existing habitation.	Detailed job hazard analysis prior to commencement of work. Proper supervision throughout the execution period.
4	Managing community issues	Potential delay due to pressure to use labour from communities.	<ul style="list-style-type: none"> • Community will be proactively engaged and community vendors will be engaged. MOU signed (where GMOU does not exist), before commencement of work activities. • FTO will be secured via SPDC community relations officers for the various communities. • Vendors to employ community workers to execute non-technical scopes of the projects.
5	Security	Threat to Personnel & Assets. Disruptions to commencement/ execution/completion of Well Location Fencing projects.	<ul style="list-style-type: none"> • Front-end planning of projects includes development of activity-specific security plans, in consonance with relevant Asset security plans. • SPDC Security Operating Level (SOL) will be routinely applied for evaluation of real-time risk on projects. • Own security arrangements by construction contractors subjected to review / acceptance by SPDC security dept prior to implementation. • It is noteworthy that the Nigerian crisis team headed by the managing director is in place to manage the security issues in our operating facilities and environs.

S/N	Risks Category	Risk Description	Mitigation/Remedial Effort
			<ul style="list-style-type: none"> Freedom to Operate (FTO) will be guaranteed before moving to work sites. Measures will be put in place to safely evacuate personnel in case of heightened securities breaches. Appropriate provisions, including force majeure clause will be included in the contracts to minimize cost of serious security incidents.

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 IP is functionally supported by HSE, SD, Legal and Treasury.

Conducting our business in a safe and responsible manner is the bedrock upon which SPDC policies and practices are founded. Increasing and sustaining production is the primary commercial aspirations of the company. The safe and efficient execution of this project represents technical directorate's contribution to this overarching goal. Support from other functional teams will also be secured to ensure a seamless project execution.

SPDC HSE and SDCR policies will be strictly adhered to with a view to minimising the risk of accident and disruptions to work programme. The 3 Golden rules and 12 Life saving rules will be continually emphasised as an essential step in attaining GOAL ZERO.

In addition, a project-specific HSE plan incorporating all the potential hazards relating to these projects will be put in place. Contractor's HSE plan will be reviewed to ensure it adequately addresses all possible hazards of the project and communicated to contractor staff in kick-off meetings, daily tool box meetings and site inspections.

Social Performance Management

Freedom to operate (FTO) will be secured from all affected communities. For communities covered by operational GMoU's, this will be through their respective Cluster Development Boards. For those without operational GMoU's, individual FTO's will be through the community representatives.

The key benefits that will be offered are: contract opportunities for community vendors, employment opportunities for members of host communities and associated community content initiatives.

Section 6: Project management, monitoring and review

- Dedicated Project Engineers will be assigned to these projects to monitor progress on daily and weekly basis.

- Company site representatives (CSR) will be employed for these projects to ensure that vendors execute the scope of work as stated in the contract document and that good quality project is delivered to the asset teams
- Post-investment review for these projects will be included in the overall scope.

The individual fencing works will be managed via the ORP-Lite process, which was derived from the ORP for managing projects less than \$10 million. It has various reviews and decision gates. The decision executive is the Central Engineering Manager. Post Investment Reviews will be done, in line with good project management practice.

Section 7: Budget provision

This investment proposal falls within the BP10 and BP11 planning cycle; hence there is budget provision for the proposed commitment in the 2011 DEVCOM approved budget proposal.

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		0.61	0.83	0.85			
Cash Flow							
SCD Expenditure		0.01	0.02	0.02			
Pre-FID Expenditure							
Capital Expenditure		0.60	0.81	0.83			
Operating Expenditure		0.03	0.04	0.04			
Cash flow From Operations		0.01	0.21	0.32	0.22		
Cash Surplus/(Deficit)		(0.59)	(0.60)	(0.51)	0.22		
Profit and Loss							
NIBIAT +/-		0.02	0.04	0.05			
Balance Sheet							
Avg Capital Employed		0.31	0.93	1.53	1.69	1.58	1.58

Section 9: Disclosure

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

Section 10: Financing

The project will be funded from SPDC's own generation of funds and existing shareholder facility assuming the balance of the shareholder facility remains above zero; otherwise it will be subject to a separate Group Financing Proposal.

Section 11: Taxation

The Well Location Fencing project East shall have appropriate tax treatment in line with statutory requirements.

Section 12: Key Parameters

Approval is requested for:

- Well Location Fencing for a sum of \$2.28mln MOD (50/50, Shell share).

Section 13: Signatures

This Proposal is submitted to UIG Directors for approval.

Supported by:	For Business approval:
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Agwae Tigho	Jerry Jackson
FUI/FB	UIG/T/E
Date / /	Date / /

<i>Initiator:</i> <i>Ekpekurede, Christopher</i> <i>Head Corporate Civil Engineering (UIG/T/PEV)</i> <i>Date / /</i>
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Appendix 1

Scope of Works

A brief description of the scope of works planned to be executed under this proposal is as follows:

Land 1 Asset Area - 47No.

- Agbada Field 17 wells
- Obigbo Field 23 wells
- Umuechem Field 05 wells
- Obele Field 02 wells

Land 2 Asset Area - 16No.

- Etelebou Field 01 wells
- Oguta Field 09 wells
- Ahia Field 06 wells

This scope has been transformed into work packages and captured as specific HSE critical items that form part of SPDC business plan for 2011 and beyond.