

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 Company (NNPC: 55%), Total: 10%, Nigeria Agip Oil Company (NAOC: 5%) in SPDC-JV		
Amount	USD 2.05 mln Shell share, MOD, 50/50 (USD6.84 mln 100% JV)		
Project	Construction of Security Fence in SPDC East and West facilities		
Main commitments		Shell Share \$mln	100% JV \$mln
	Construction of Citadel/Concrete wall security fencing in Eastern Locations (Awoba, Krakama, Alakiri & Nembe FLB).	0.64	2.13
	Construction of Citadel security fencing in Western Locations (Kokori F/S, Orokpor Borrow Pit, Utorogu Gas plant, Utorogu F/S). Construction of block wall fence at Utorogu FLB.	1.41	4.71
	Total (Shell Share)	2.05	6.84
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. Formal JV partners' approval will therefore be obtained.		
Summary cash flow	Not applicable as analysis is cost only		
Summary economics	The Construction of facility security fencing (East and West) was evaluated as an infrastructure project (on cost only basis) and returns an NPV 7% of \$ -0.43mln (Shell share) with an associated maximum exposure of \$1.10mln in 2010. Summary of evaluation is shown in Table 4 below.		

Section 1: The proposal

Management Summary

This proposal seeks support and approval of US\$2.05mln shell share (US\$6.84 100%JV) over a five-year period (2009-2013) for the construction of 10,115m of Citadel security fencing and block wall fencing (ca 850m) to provide access control and protection of production facilities in the Eastern and Western Divisions of SPDC.

The selected production facilities to be fenced are on land and swamp.

In view of the heightened security concerns in the Niger Delta, various project studies, facilities improvement assessments, safety and security audits have underlined the vulnerability of these facilities to attacks and vandalization. The proposal for citadel and concrete & blockwall fencing has been accepted by Corporate Asset Protection /Security department as being adequate to check these security concerns as long term measures and reduce surveillance costs.

The Project Workscope is as follows:

East and West Flow Stations:

- Dismantling of the existing chain link fence
- Construction of high (Citadel) security fencing around Gas Plants and Flow stations. According to determined Risk/Exposure, Citadel fencing on all wells + sturdy cage over well head/Christmas tree. The work includes excavation to receive a continuous reinforced concrete beam support, Installation of Citadel fence posts and mesh. The top of the fence shall carry razor ribbon.

Wellheads on Land Locations (East and West)

- Block wall fencing to restrict access to the wellheads on land locations
- Fencing of poorly remediated borrow/waste pits to prevent drowning, which could have serious impact on Company reputation.
- Construction of reinforced/ precast 4m high wall topped with razor wire around FLB's. The work includes excavation to receive the foundation; 4m high block wall; access gate to the facilities.

Below is the summary of the commitments under this proposal;

2009	2010	2011	2012	2013
Alakiri -700m; 800m conc. Wall; Nembe FLB fence repair - 50m	Awoba – Citadel 475m; Krakama - Citadel 440m; Rumukpe 100m	-	-	-
1.Procurement of 600m Citadel fencing materials 2.Installation of 1000m Citadel fence at Utorogu Gas Plant. (1000m fencing materials available in SPDC storage yard)	1.Procurement of 1500m Citadel fencing materials 2.Installation of 1000m Citadel fence at Utorogu Gas Plant	Procurement of Citadel materials /installation. Afiesere F/S- 1250m, Kokori F/S-400m, Utorogu F/S- 500m.	Procurement of Citadel materials /installation. Ughelli East F/S- 2000m	Procurement of Citadel materials /installation Orokpo borrow pit -1500m.

These projects are commitments, which form part of the SPDC business plan between 2009 and 2013. Work scopes have been defined for the years 2009 - 2013 with appropriate budget made available in the 2009 budget to cover the year's work scope. Procurement and Citadel fence installation shall be executed simultaneously (with Citadel fencing being done using materials already in stock). Delivery timelines for Citadel fencing are: Procurement – 8 weeks, Installation- 500m/month

Table-2: Cost Phasing (Shell Share)

Project	US\$ mln, MOD				
	2009	2010	2011	2012	2013
Construction of Citadel security fencing and Concrete wall fencing in Eastern Locations	0.29	0.35	-	-	-
Construction of Citadel security fencing in Western Locations	0.16	0.27	0.38	0.34	0.26
Total – Shell Share	0.45	0.62	0.38	0.34	0.26
100% JV	1.50	2.07	1.27	1.13	0.87

Summary of Economics (Shell Share)

This economics is forward looking and is evaluated as a cost only using the 50/50 CAPEX. Sensitivity is carried out on high capex scenario and a 1-year schedule delay. Details of the results are shown in Table 4 below:

Table 4: Economic Grid: Security Fencing around East And West Facilities

PV Reference Date: 1/7/2009	NPV (S/\$ \$ mln)		VIR	RTEP	UTC (RT \$/boe)		Payout-Time (RT)	Maximum Exposure (RT)
Cash flow forward from: 1/1/2009	0%	7%	7%	%	0%	7%		
Base Case								
SV (\$50/bbl RT 09 & \$0.50/mmbtu)	-0.30	-0.43						
RV (\$60/bbl RT 09 & \$0.60/mmbtu)	-0.30	-0.43	-0.25					1.10 (2012)
HV (\$80/bbl RT 09 & \$0.80/mmbtu)	-0.30	-0.43						
BEP (RT \$/bbl)								
Sensitivities (using RV)								
High capex		-0.52	-0.25					1.32 (2012)
One year schedule delay		-0.39	-0.25					1.10 (2011)
Life cycle		-0.43	-0.25					1.10 (2013)

Key Project Parameter Data (Shell Share)

Parameter	Unit	BP08	Low	Mid	High	Comments
CAPEX (MOD)	US\$m	2.1	NA	2.1	2.5	High= +20% base
OPEX Investment (MOD)	US\$m	NA	NA	NA	NA	
Production volume	Mmbbl	N/A	N/A	N/A	N/A	
Start Up Date (Production)	mm/yyyy	N/A	N/A	N/A	N/A	
Production in first 12 months	MMboe	N/A	N/A	N/A	N/A	

Economics Assumptions:

- Costs are treated and taxed as oil expenditure.
- No future maintenance OPEX considered in the analyses.
- NDDC levy of 3% total expenditure

Section 2: Value proposition and strategic and financial context

The business requirement to provide access control, enhance staff security, and protection of production facilities in the Eastern and Western Divisions of SPDC in view of challenging security situation in the Niger Delta is captured in the business plan of 2008 and beyond.

This project is aimed at enhanced security of production facilities with a view to:

1. Improving the security of company assets and personnel
2. Enhancing security emergency response as the assets are within the fence in the purview of the security personnel
3. Obviating the huge cost of restoring the integrity of vandalized production facilities situate within the fenced area
4. Improving staff morale as a result of a higher feeling of sense of security
5. Help sustain continued oil and gas production with improved facility uptime by preventing vandalization of production facilities within the fenced area.

Section 3: Risks, opportunities and alternatives

Alternatives considered:

Do Nothing: The security threats in the Niger Delta to facilities and personnel are real. Doing nothing would leave the company's production facilities and personnel at the mercy of vandals and militants who can attack with ease. The risk of operating these facilities would remain high leading to increase in abandoned production facilities and loss of revenue to the company. Staff morale would be low as personnel would see company as not being responsive to their security needs.

S/ N	Risks	Risk Description	Mitigation/Remedial Effort
1	HSE Risks	Risk of striking live electrical/telecoms cable or water lines during construction.	Sonic surveys will be done within the project site to determine the presence and identify the location of underground facilities like electricity and telecommunication cables, water lines etc.
2	HSE Risks	Working around built and operating facilities	Detailed job hazard analysis prior to commencement of construction - This shall ensure that the chosen work method, speed and sequence of construction activities do not constitute additional threat to the integrity of existing facility and safety of construction workers
3	HSE Risks	Generation of wastes such as broken concrete, steel off-cuts, sand and aggregate debris etc during construction.	A dedicated SPDC HSE Inspector shall be maintained on site during the construction period. SPDC waste management plan shall be implemented
4	Managing community issues	Delayed completion of work due to stoppage by communities	SPDC and contractors shall mitigate this with proactive engagement of the communities through the Cluster Development Board (CDB) where the GMoU is operational and by reaching agreement in areas without GMoU as part of the pre-mobilisation activities. All community engagements to be carried out by the respective Asset Team Community Interface Coordinators (CIC). The community workforce shall be engaged to execute

			activities they can perform. However, the cost of homage payment shall be borne by the asset team as this cost is not included in the project cost supplied above.
5	Security Risks	Hostage taking	This shall be mitigated by strict adherence to SPDC security policies and use of SREM (Security Risk Evaluation Matrix) before embarking on journeys and during execution.
6	HSE Risk	Road & marine transportation hazards	Application of SPDC journey management policies and guidelines

Section 4: Corporate Structure and Governance

SPDC is the operator of an Unincorporated JV with 30% interest, with Under Operational Control (UOC) and Joint Controlled Assets (JCA). This proposal is within the SPDC corporate structure and governance framework.

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

This project operates in line with SPDC processes and is supported by the relevant functions: Production Asset Teams (East & West) and Corporate Security Department. Functional support for this IP has been provided by the Finance, HSE/SCD, Legal and Tax Functions.

Section 6: Project management, monitoring and review

Project Engineers will be dedicated 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 carry out the scope of work as stated in the contract document and that good quality project is delivered to the asset team

Construction contractor shall also be required to have own project management services for the work.

Section 7: Budget provision

This investment proposal falls within the BP08 and BP09 planning cycle, hence there is budget provision for the proposed commitment in the 2009 budget proposal

Section 8: Group Financial Reporting Impact

The proposal will not have significant impact on Shell Group financials.

Section 9: Disclosure

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

Section 10: Financing

The investment will be financed by JV funding while shell share capital expenditure will be met by SPDC's own cash flow.

Section 11: Taxation

The construction of Facilities Security Fencing, East and West project shall have appropriate tax treatment in line with statutory requirements.

Section 12: Key Parameters

Approval is required for the proposed commitment and expenditure for the following:

- Construction of Security Fence in East and West facilities for sum of \$2.05mln (Shell share)

Section 13: Signatures

This Proposal is submitted to SPDC Organisational Representative for approval.

Supported by:

Approved by:

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Agwae, Agomatigho

EPF-G-TD

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

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Kennet, Chris

EPG-TDO

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

Initiator: Ekpekurede, Christopher
Mr Project Manager (EPG-TPEV)
Date .../.../...