

The Shell Petroleum Company Limited

Group 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	USD12.66 mln Shell share, MOD, 50/50 (USD42.20mln 100% JV)		
Project	Shoreline and Jetty Re-Construction in SPDC East and West facilities.		
Main commitments		Shell Share \$mln	100% JV \$mln
	Shoreline and Jetty Re-Construction-West	2.84	9.47
	SCD - West	0.30	1.00
	Shoreline and Jetty Re-Construction -East	9.52	31.73
	Total (Shell Share)	12.66	42.20
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 project was evaluated as a 'cost only' facility Capex which assures business continuity. The project returns an NPV 7% \$-3.86 (Shell share) with an associated maximum exposure of \$4.49mln in 2014.		

Section 1: The proposal

Management Summary

This proposal seeks approval of USD12.66mln Shell Share; \$42.20 mln 100% JV for the upgrade of boat landing facilities and the re-construction of shore protection structures at various SPDC facilities.

The affected production facilities where jetties and shore protection structures are to be provided are located in the swamp/shallow offshore. The existing dilapidated steel jetties will be replaced with concrete-type jetties; the shoreline will be protected to ensure the containment of land reclamation. Overall, the projects aim to improve access, integrity of structures to assure safety of operation in the facilities.

This project will also provide crucial support for marine logistics at SPDC's swamp facilities that fall under the Western Re-entry programme.

The Worksopce covers the SPDC East and West Divisions:

Western Division

- Re-Construction of jetties at Saghara, Odidi-1, Escravos Beach, IA Ogunu, Egwa-1 and Jones Creek. The work comprises amongst others, piling/substructural reinforced concrete works,

jetty deck reconstruction, installation of appurtenances such as handrails/fenders and bollards, walkway construction.

- Re-Construction of Shore Protection structures at Ogbotobo, Escravos road, Sagbara, Odidi-1, Egwa-1, Jones Creek and Egwa-2. The work comprises amongst others, Production and Installation of precast concrete/steel sheet piles, installation of sheet piles, anchorages and Tie-backs, construction of capping beams, installation of fenders. It is also noteworthy that the Ogbotobo Jetty construction is a key SCD Western Re-entry project aimed at sustaining FTO with host communities in the Southern Swamp.

Eastern Division

- Design and construction of shoreline protection and jetties at Awoba, Nembe-1, Ekulama-2 and Diebu Creek; Shoreline protection extension at KI and Alakiri.

The works are to be carried out between 2010 and 2016. Work schedule is as attached in appendix 1.

Cost Estimating

The estimated costs are based on detailed market surveys /benchmarked against competitively tendered rates on NiPEX for the Marine foundation call off contract as jointly evaluated by NAPIMS/ SPDC.

Below is the summary of the commitments under this proposal.

Table-1: Budget Phasing (MOD \$mln, Shell share)

Project	US\$ mln, MOD							Shell Share \$mln MOD	100% JV
	2010	2011	2012	2013	2014	2015	2016		
Shoreline and Jetty Re-Construction -West	0	0.91	0.95	0.98	0	0	0	2.84	9.47
SCD - West*	0.3	0	0	0	0	0	0	0.30	1.00
Shoreline and Jetty Re-Construction - East	1.26	0.94	1.11	1.62	1.66	1.69	1.24	9.52	31.73
Total	1.56	1.85	2.06	2.6	1.66	1.69	1.24	12.66	42.20

* \$0.30mln funding (Shell share) in 2010 for SCD-West is provided from the Western Re-entry budget.

Section 2: Value proposition and strategic and financial context

This project will facilitate the continued production from SPDC facilities by assuring access and asset integrity. This will enable SPDC to meet current and planned oil and gas sales agreements.

The direct benefits associated with these projects can be summarised as:

- Compliance with ISO14001 standards and DPR Statutory Regulations
- Improve Asset Integrity.
- Improved safety and operability in compliance to HSE Goal zero objectives
- Adequate security and good access control
- Elimination of bottlenecks in operation
- Seamless and uninterrupted production operations especially in consideration of ease of resumption of production operations for the success of SPDC's Western Re-entry programme.

Summary of Economics

The economics is forward looking to assess the impact on cash flow. This project is considered 'cost only' oil facility Capex which assures business continuity. The SCD cost treated as Oil Independent Opex is applicable to SPDC-West only. Sensitivities were carried out for high Capex and additional 1.5% on IP cost arising from BVA issues.

Additional economic analysis was carried out to show the total value of Oil at risk (classified into Producing / Non Producing Assets), in the event that this project is not undertaken. Fields producing NAG is excluded. The value at risk evaluation based on BP09 forecast assumes that all expectation reserves between 2011 – 2016 would be realised if the projects is undertaken.

Details of the results are shown in the table below:

Table 2: Economics Grid for Reconstruction of Shoreline and Jetties in SPDC East and West

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 09)	-4.22	-3.86						
RV (\$60/bbl RT 09)	-4.22	-3.86	-0.42	NA	NA	NA	NA	4.49 (2014)
HV (\$80/bbl RT 09)	-4.22	-3.86						
BEP (RT \$/bbl)	NA	NA						
Sensitivities (using RV)								
1.5% on IP Cost from BVA issues	-4.79	-4.34	-0.45	NA	NA	NA	NA	4.56 (2014)
High Capex		-4.62	-0.42					5.38 (2014)

Table 3: Value At Risk (Oil) for Producing and Non Producing Assets East and West

	\$Mln RT 2010					
Description	Cost Only	Value-at-Risk NPV7%	(Intrinsic Value) Value at Risk + Cost only	Expenditure \$Mln MOD Shell Share	Remarks	
Producing Assets						
East	-2.11	199.96	197.84	5.85	Nembe, Diebu and Alakiri	
West	-0.27	10.34	10.07	1.08	Saghara & Escravous	
Non-Producing Assets						
East	-0.94	84.4	83.46	3.67	Awoba, Ekulama	
West	-0.54	39.64	39.11	0.30	Opex	Egwa, Jones Creek,
				1.76	Capex	Ogbotobo, Odidi

Key Project Parameter Data (Shell Share)

Parameter	Unit	Bus Plan (RV)	Low	Mid	High	Comments
Capex (MOD)	US\$ mln	1.25		12.66	15.19	+20% high case
Opex (MOD)	US\$ mln	0.30		0.3		
Production Volume	mln boe			NA		
Start Up Date				NA		
Production in first 12 months	mln boe			NA		

Economic Assumptions

1. For cost-only evaluation, no revenue stream applied
 - Costs are treated as Oil Independent capex expenditure.
 - NDDC levy applied at 3% total expenditure
 - Facility cost assumed recurrent after 2016

2. For value at risk, the following assumptions apply:
 - NDDC Levy of 3% of total expenditure
 - Facilities OPEX on Producing fields based on the 31/12/2009 ARPR Opex
 - Facilities Opex for Non Producing fields based on 31/12/2008 ARPR Opex
 - Flare Penalty of \$3.5/Mscf applied
 - PPT tax rate of 85% applied
 - Education Tax assumed at 2% assessable profit
 - DomGas market assumed for gas sales with GHV of 1000btu/scf
 - I.A Ogunu and KI Jetties Support Producing Fields in West and East respectively

Section 3: Risks, opportunities and alternatives

Risks

S/N	Risk Description	Mitigation / Remedial effort
1.	Lack of Budget	It is envisaged that adequate budget will be provided for 2010. The 2011 budget requirement will be submitted during the 2011 – 2016 programme build.
2.	Managing Community Issues	SPDC and contractors shall mitigate this with proactive engagement of 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 work force shall be engaged to execute activities they can perform. However, the cost of homage payment shall be borne by the Asset Team/Budget Holder, as this cost is not included in the project cost supplied above.
3.	Lack of Security	The Nigerian crisis team headed by the Managing Director is in place to manage the security issues in our operating facilities and environs. Freedom to operate (FTO) will be guaranteed before moving to work site(s). Measures will be put in place to safely evacuate personnel in case of heightened security breaches. The contractors will be put on “force Majeure” at minimal cost to SPDC if security in area of operation deteriorates.
4.	HSE Plan	The HSE plan will be prepared and approved by HSE support in the line and will cover all construction / logistics activities hazard analysis and mitigation methods. SPDC HSE policies will be strictly adhered to during construction.
5	HSE 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.
6	HSE Risk of	Detailed job hazard analysis prior to commencement of construction - This

	Working around built and operating facilities	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
7	HSE Risks of 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
8	HSE Risks of Road & marine transportation hazards	Application of SPDC journey management policies and guidelines.

Alternative Considered

- Do Nothing: This alternative is not acceptable, as it will not support maintenance of proper asset integrity, minimal standards and DPR guidelines. The risk of operating these facilities would therefore be extreme leading to increase in abandoned production facilities and loss of revenue to the company

Section 4: Corporate Structure and Governance

The existing corporate structure and arrangements of SPDC-JV with SPDC as operator of an Unincorporated JV with 30% interest, with Under Operational Control (UOC) and Joint Controlled Assets (JCA) will be used as the vehicle for the investment and operations. 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

The Central Civil Engineering team (East and West) will execute this project. Project Engineers will be dedicated to the projects to monitor progress on daily and weekly basis. In carrying out the project, relevant functional inputs will be applied to ensure seamless execution. SPDC HSE and SCD policies will be strictly adhered to with a view to minimize the risk of accident/incident and disruptions. In addition, a project-specific HSE plan incorporating all the potential hazards relating to these projects will be put in place. Communities will be proactively engaged and MOUs signed (where none exist) before commencement of work activities. This project will be reviewed with the 2010 –16 Asset Reference Plan (ARP) for the Asset Teams.

Company site representatives (CSR) will be employed for these projects to ensure that contractors execute the scope of work as stated in the contract document to the specified quality requirement. Construction contractor shall also be required to have own project management services for the work.

Section 7: Budget provision

This proposal is in line with the JV business Plan. There is a sufficient provision for the proposed commitment in the 2010 budget proposal. Funding for 2011 and beyond have been duly determined and will be requested during the next program build.

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 Shoreline and Jetty Rehabilitation Project shall be treated as an oil project with Capital expenditure 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 a 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

Approval is required for the proposed commitment and expenditure for Shoreline and Jetty rehabilitation works in SPDC over 5 years period (in conformance with the Engineering Business Plan) starting 2010 – 2016 for US\$12.66 mln (Shell share, 50/50).

Section 13: Signatures

This Proposal is submitted to EPG Directors for approval.

Supported by:

For Business approval:

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Lismont Bart

Bernardus Bos

UIG/T

FUI/F

Date / /

Date / /

Initiator: Ekpekurede, Christopher (Mr)
Project Manager (UIG/T/PEV)
Date / /

APPENDIX WORK SCHEDULE

PROJECT DISTRIBUTION FOR SHORELINE AND JETTY - 2010 TO 2016								
PROJECT DESCRIPTION	PROJECT	YEAR						
		2010	2011	2012	2013	2014	2015	2016
Shoreline and Jetty Rehabilitation -West								
	Design/ construction of Ogbotobo Jetty.							
	Rehab of Jones Creek Jetty.							
	Design/ construction of shoreline Protection at Escravos.							
	Design /construction of shoreline protection at Saghara, Egwa 1/2 and Jones Creek							
	Design/construction of shore protection at Odidi -1.							
	Rehabilitation of I.A Ogunu Jetty							
	-1							
Shoreline and Jetty Rehabilitation -East	Design and construction of shoreline protection and Jetty at Nembe -1 and Awoba							
	Complete Construction of shoreline protection and Jetty at Nembe -1 and Awoba.							
	Design and construction of shoreline protection and Jetty at Ekulama -2							
	Complete construction of shoreline protection and Jetty at Ekulama -2							
	Design of Shoreline Protection and Jetty at Diebu Creek							
	Complete construction of shoreline protection and Jetty at Diebu Creek							
	Design Shoreline -Jetty Extension and rehabilitation at KI							
	Design Shoreline -Jetty Extension and rehabilitation at Alakiri							
	Construction of shoreline protection and Jetty at Diebu Creek							
	Design Shoreline -Jetty Extension and rehabilitation at KI							
	Design Shoreline -Jetty Extension and rehabilitation at Alakiri							
	Complete construction of shoreline protection and Jetty at Diebu Creek							
	Shoreline -Jetty Extension and rehabilitation at KI							
	Shoreline -Jetty Extension and rehabilitation at Alakiri							

APPENDIX 2: BUSINESS CASE JUSTIFICATION - JETTIES/SHORELINE –WEST

PROJECT	Condition Status	Do-Nothing consequences	Current Status of SPDC Production Activities
Design/ construction of Ogbotobo Jetty.	No Jetty in host community presently. Project is based on SPDC's SCD agreement with the community.	Restiveness/ disaffection in host communities. This will hamper SPDC's re-entry efforts. Potential shut in of 13,000 bopd production from Ogbotobo FS.	Asset currently not producing due to vandalism of facilities. Re-entry efforts ongoing and production expected to resume by 2011.
Rehab of Jones Creek Jetty.	Jetty Deck and part of support structure have structurally failed. Presently in unsafe condition for SPDC operations and use by third parties.	Lack of Access to facility which will lead to Loss of production. Shut in of 35,000 bopd being potential production from Jones Creek FS. Exceedingly higher replacement costs if jetty collapses. Serious Injuries to personnel/ third parties or possible fatality in event of collapse.	Asset currently not producing due to vandalism of facilities. Re-entry efforts ongoing and production expected to resume by 2011.
Design/ construction of shoreline Protection at Escravos.	Shoreline protecting access road to facility in precarious condition. Access Road to Escravos F/S cut off in 2008 due to erosion from failed shore protection wall. Road currently being protected by temporary shore protection methods (sandbagging)	Cut-off of access to flow station. Unsafe condition for road users including third parties Shut in of 25,000 bopd being potential production from Escravos FS. Higher repair or reconstruction costs when temporary protection fails. Impact of failure on environment.	Facility is producing at full capacity.

APPENDIX 2: BUSINESS CASE JUSTIFICATION - JETTIES/SHORELINE –WEST

PROJECT	Condition Status	Do-Nothing consequences	Current Status of SPDC Production Activities
Design/ construction of shoreline Protection at Saghara, Egwa-1/2 and Jones Creek.	No existing shoreline protection at Saghara FS. Shoreline protection at Egwa-2 has failed and temporary sand-cement bags currently being used. Access walkway to Saghara FS from jetty and citadel fence has collapsed due to lack of shore line protection on site. Egwa-1 shore protection wall (steel sheet pile wall) has failed at several sections.	Flow station and adjoining structures seriously threatened. Unsafe condition for personnel including third parties Shut in of 55,000 bopd being potential production from Egwa 1 -5,600bopd, Egwa 2 – 4,400bopd, Saghara – 10,000 bopd and Jones Creek FS - 35,000 bopd. Failure may lead to environmental impact (rupture of adjacent flowlines).	Saghara facility is producing at full capacity. Egwa 1/2 and Jones Creek currently not producing due to vandalism of facility. Re-entry efforts ongoing and production expected to resume by 2012.
Design/ construction of shoreline Protection at Odidi-1	Shore protection wall(steel sheet pile wall) at Odidi-1 has failed at several sections. Part of guard hut was damaged in 2005 due to the failed shore protection wall. Sand-cement bags presently used to protect the guard hut and fence line at the station.	Shut in of 8,000 bopd and 80MMSCFT/d being produced at Odidi-1 FS/CPF. Loss of Asset (Integrity of flowstation and adjoining structures at stake).	Asset currently not producing due to vandalism of facility. Re-entry efforts ongoing and production expected to resume by 2012.
Design/ Construction of Shoreline Protection at Nembe-1.	Shoreline Protection at Nembe-1 has failed at several sections and Temporary Sand-Cement Bags Currently being used to protect the Guard Hut and Fence Line at FLB. Access walkway to FLB from jetty and Helipad Area were been threatened due to lack of shore line protection on this section.	Loss of Asset (Integrity of Helipad, FLB and Adjoining Structures at Stake). Unsafe Condition for Personnel Including Third Parties Failure May Lead to Environmental Impact. Shut in of 20,387 bopd net oil being potential production from Nembe-1 FS.	Asset currently producing.

APPENDIX 2: BUSINESS CASE JUSTIFICATION - JETTIES/ShORELINE –WEST

PROJECT	Condition Status	Do-Nothing consequences	Current Status of SPDC Production Activities
Design/ Construction of Shoreline Protection at Awoba.	No Existing Shore Protection at Awoba. Sand-cement bags presently used to protect the guard hut and fence line at the station.	Shut in of 30,000 bopd net oil and 55 MMScf/d being produced at Awoba. Loss of Asset (Integrity of flow station and adjoining structures at stake).	Shut in but planned for re-opening in Q4 2010
Design/ Construction of Shoreline Protection at Diebu Creek.	No Existing Shoreline Protection at Diebu Creek and temporary sand-cement bags currently being used. Access walkway to FS from jetty and citadel fence has failed due to lack of shore line protection on site.	Loss of Asset (Integrity of Flow station and Adjoining Structures at Stake). Unsafe Condition for Personnel Including Third Parties Failure May Lead to Environmental Impact. Shut in of 11,200 bopd being potential production from Diebu Creek FS.	Asset currently producing.
Design/ Construction of Shoreline Protection at Ekulama-2.	Shoreline Protection at Ekulama-2 has failed at several sections. Sand-cement bags presently used to protect the guard hut and fence line at the station.	Shut in of 8,000 bopd net oil being produced at Ekulama-2 FS. Loss of Asset (Integrity of flow station and adjoining structures at stake).	Asset currently producing.

