

The Shell Petroleum Development Company of Nigeria Limited

Internal Investment Proposal

Summary Information

Directorate	Business 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 E & P Nigeria Limited: 10%, Nigeria Agip Oil Company (NAOC: 5%) in SPDC-JV			
Amount	USD4.96 million Shell share, MOD, 50/50 (USD 16.53 million MOD 100% JV) of which \$1.03mln is OPEX			
Project	SPDC - EP SAP/R3 Blueprint Enterprise Core Component (ECC6) Upgrade			
Main commitments				USD MLN
	Description	100% JV	Shell Share	
	Purchase of hardware to replace current SAP landscape in Nigeria	10.407	3.122	
	Preparation of the Data centres for the hardware installation	0.020	0.006	
	T-SYSTEMS & Local Project management / Consultancy & Manpower	0.832	0.250	
	System Support Training, travels and Contingency	1.247	0.374	
	OPEX	3.428	1.028	
	Overall Project Contingency	0.600	0.180	
	Total	16.534	4.960	
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 NOGI infrastructure cost-only basis and returns an NPV 7% \$-1.19mln (Shell share) with an associated maximum exposure of \$2.85mln in 2011.			
	Summary economics	7% NPV (USD mln)	RTEP (%)	7% VIR
	Base case	-1.19	NA	-0.36
	High Project	-1.42	NA	-0.36
	Low Opex	NA	NA	NA

Section 1: The proposal (management summary)

This proposal seeks support for the Investment of US \$4.96mln Shell Share for the upgrade of the SAP infrastructure systems before the end of 2012.

SAP EP Blueprint is currently based on SAP 4.6c and the Shell specific Extended support for SAP 4.6c stops by end 2012. For Nigeria, the existing landscape and hardware is insufficient to

support SAP EP Enterprise Core Component (ECC6) platform requirements and requires full replacement of all existing hardware.

The current 4.6c version must be upgraded on the central environment in Shell as well as the 3 step-out environments (amongst others Shell Nigeria who is running SAP on it's own landscape) before the end of 2012 otherwise EP Blueprint will not be supported by SAP anymore. This is unacceptable for a business critical system like SAP as this poses the risk of system instability, longer lead times for problem fixing and ultimately the inability to fix issues in SAP because of the deteriorating 4.6c knowledge.

Taking account of key business drivers and developments, it was decided that April/May 2011 is the most optimal go-live date. This will be done in two phases – Wave1 and Wave2.

Wave-1 of the upgrade project is the technical upgrade of SAP to ECC6, Unicode conversion and Electronic approval (approval) replacement.

Wave-2 of the project, which implementation starts after the technical upgrade, will consist of a number of projects to implement functional enhancements of the new ECC6 version or business needs, such as portal functionality for the MIE and Projects Team, guided procedures, SAP Workflow, Document Management and Closing Cockpit. More projects will be identified with the global/regional business and firmed up in parallel with wave-1 work, but implementation will start after wave-1 go-live to avoid risk of upgrade failure by combining technical & significant functional enhancements.

The Shell-share cost for this investment is US\$ 4.96 million for SPDC JV in a continued local SAP server-hosting scenario. The additional global charges (CAT-3) associated to the project and the local manpower costs for all staff contributing partially to the project is treated as Opex, whereby the hardware investment with planned manpower is treated as CAPEX. The investment will be spread over 2009 – 2012.

Breakdown of cost expenditure is as below:

Description	USD MLN	
	<i>100% JV</i>	<i>Shell Share (30%)</i>
CAPEX		
New Hardware Infrastructure	12.506	3.752
Sub Total	12.506	3.752
OPEX		
Increased R&M Infra Activities	0.042	0.013
Assessment tools	0.031	0.009
Central Team Manpower	1.503	0.451
Wave II Functional Upgrade	0.627	0.188
General Project Overheads	0.373	0.112
Dual Currency Migration	0.040	0.012
Central Project Landscape	0.168	0.051
Local Manpower & Consultancy	0.643	0.193
Sub Total	3.428	1.028
Project Contingency	0.600	0.180
Total	16.534	4.960

Budget has been put forward for 2010 in BP09 and will be defended towards JV stakeholders through the existing approval bodies. Hardware for the ECC6 will be procured through local vendors in Nigeria.

The new landscape will run for all Shell Operating units in Nigeria, especially SNEPCo and SPDC. To ensure fair & equitable funding (based on user count), SPDC will charge SNEPCo annually for a user fee consisting of the depreciation component of the capitalized investment and the local manpower involved in day-to-day landscape support and procurement of the hardware. In line with local content drive, local contractors will be engaged for the acquisition and installation of the new SAP infrastructure system. SPDC technical support team will be trained for the operational support of the system.

Section 2: Value proposition and strategic and financial context

SAP EP Blueprint is an integrated tool that supports many business lines and key (must-win) projects for Shell and JVs. It is the prime source used for processing internal / external financial reporting and post-award Requisition-to-Pay (procurement management activities). SAP EP blueprint also supports the existing business control framework of Shell in Nigeria and key 'must-win' projects such as Production Facilities Maintenance Integrity or generally called Maintenance Integrity Execution (MIE).

Upgrading SAP blueprint to SAP Enterprise Core Component (ECC6) version will guarantee optimal availability of SAP for the processing of critical business activities and continuous real-time data exchange with other interface systems and alignment of Nigeria's SAP system with SAP installation in other Shell Operating Units.

Not upgrading SAP to ECC6 will impact significantly on the do ability and efficiency of day-to-day business and will cause significant delay in business projects where SAP features strongly as a supporting tool.

The other benefits of the upgrade are:

- Alignment of Nigeria's SAP version with the SAP version in other Shell group systems such as Shell People, GSAP etc.
- Opportunities for best practices sharing across EP and global benchmarking that will be enabled by consistent usage of the same accounting tool – NNPC is currently implementing SAP ECC6 version.
- Hardware replacement associated with the ECC6 upgrade will guarantee improved system performance, availability and reliability as against indicators from the existing hardware systems.
- Upgrade proposal fully aligns with group unconditional long term commitment in SAP application demonstrated with 7 years purchase of SAP licence in 2007

Summary Economics

The economic evaluation was carried out on a forward-looking basis. The Project is considered a 'cost only' SPDC owned NOGI infrastructure. The chargeback from SNEPCO on usage of SPDC SAP infrastructure is not considered in this analysis. Sensitivity was carried out on high project cost (+20% base cost).

Table 1: Economics for SPDC - EP SAP/R3 Blueprint ECC6 Upgrade

PV Reference Date: 1/7/2009	NPV (S/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)	-1.05	-1.19						
RV (\$60/bbl RT 09 & \$0.60/mmbtu)	-1.05	-1.19	-0.36	NA	NA			2.85 (2011)
HV (\$80/bbl RT 09 & \$0.80/mmbtu)	-1.05	-1.19						
BEP (RT \$/bbl)								
Sensitivities (using RV)								
High Project Cost		-1.42	-0.36					3.42 (2011)

Key Project Parameter Data (Shell Share)

Parameter	Unit	BP09	Low	Mid	High	Comments
CAPEX (MOD)	US\$m	3.93	N/A	3.93	4.75	High= +20% base
OPEX Investment (MOD)	US\$m	1.03	N/A	1.03	1.45	High= +20% base
Production volume	Mmbbl	N/A	N/A	N/A	N/A	
Commission Date	mm/yyyy	N/A	N/A	05/2011	N/A	
Production in first 12 months	MMboe	N/A	N/A	N/A	N/A	

- Costs are treated as Non Oil and Gas infrastructure (NOGI) expenditure.
- No salvage value, abandonment or SCD cost was considered in this analysis.
- NDDC levy applied at 3% total expenditure
- Education tax not applied

Section 3: Risks, opportunities and alternatives

Risks & Opportunities

- Key risk is instability and no SAP support for a business critical system when not upgraded to ECC6 platform. There are no SAP Extended Support options open to pursue anymore for the existing SAP 4.6c version.
- The business activities of the following processes will be adversely impacted if SAP becomes unavailable due to version obsolescence and depleted hardware platform that will arise if this upgrade is not effected as planned:
 - Financial reporting for internal business management, group and external stakeholders.
 - Vendor payments and payroll processing.
 - Budget management and Contract performance
 - Material availability and disbursement for operational activities – drilling, major projects etc.
 - Maintenance schedule and effective monitoring of asset integrity.

- Availability of resources locally. The upgrade efforts will run in parallel with the normal run & maintain activities. Existing local SAP & business staff will be substantially involved in the upgrade project, but more in peak load (testing efforts) than continuous extensive involvement. During the upgrade, the usual run & maintain activities and landscape management will reduce as the landscape freeze sets in. This should provide the leverage to ensure local staff involvement.
- Opportunity is there to fully replace and enhance the existing depleted SAP hardware in Nigeria and ensure continuous alignment with the central landscape can continue. This will ensure continued Global Shell & SAP support for the new platform, in line with the existing 'Global SAP Blueprint Membership Agreement'.
- Capacity requirements for Nigerian SAP payroll upgrade to SAP ECC6 version and post upgrade processing requirements are included in the planned IT hardware infrastructure investment for SAP blueprint upgrade. SPDC SAP payroll system currently caters for payroll processing for all Shell Companies in Nigeria.

Alternatives considered

- Alternative considered is to incorporate Nigerian Blueprint Operating Units on the 3rd party (T-System) server that provides hosting services for the central blueprint system. This has been discredited severally as Key benefits derived from local hosting currently are local employment creation & the safeguarding of local transactional data on local server (identified at time of initial implementation of SAP in 2002 to 2004). In addition, the current PIB developments indicate a possible move towards IJV, which will provide even stronger arguments to continue with the current local hosting scenario. These arguments have led to the decision to continue with local hosting even though this will require full replacement of the existing landscape and might be less attractive from a pure economic point of view.
- Enhancing the existing hardware to cope with additional storage and capacity requirements could be considered. However, the upgrade to ECC6 and full landscape alignment with the central server requires an extensive enhancement of the overall operating system, which can only be delivered through full replacement of all existing hardware. Partial continuation with existing hardware is therefore not a realistic option and may not provide optimal performance.
- A 'do nothing' scenario is not applicable, as this will jeopardise JV & other statutory reporting capability, global upgrade plan and impair the continuity of SAP blueprint solution as envisaged and approved by Shell EXCOM.

Section 4: Corporate structure, and governance

A Local Upgrade Coordinator will lead the local upgrade project. The incumbent will report to the Global Shell Upgrade Project Manager and a local steer group. Shell Global EP ERP Upgrade Manager will functionally manage the entire project on behalf of SPDC and other SAP blueprint operation units (Ous). A small project team (max 2-3 staff) will execute the project on full time basis in Nigeria. A significant number of existing local staff in finance, IT and the wider business will be involved on part time basis in the upgrade execution, especially focused on extensive testing efforts.

The existing corporate structure and governance arrangements of SPDC will subsist for this investment.

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

Functional Support (Finance, IT, and Legal) and Sign-off have been obtained from relevant functions and recorded in the proposal document.

Section 6: Project management, monitoring and review

The Shell Global EP ERP Upgrade Manager will manage the overall upgrade project. The local OU established Upgrade Coordinators would report into the global project manager to strengthen alignment, communication and ensure timely progress on critical activities. The project will be executed in line with the 'IT Project Delivery Framework (PDF)'. 'Go – No Go' decisions for going live with the new platform will involve appropriate sign-off by all stakeholders at global and local OU level.

Section 7: Budget provision

Budget for this project has been included in the SPDC BP09 submission for 2010, which was presented and defended before JV stakeholders during the 2009 2nd term DevCom. JV partners conditionally approved the budget proposal for the project under the following provisions:

- All SAP project and production servers must reside in Nigeria.
- Disaster recovery (DR) systems for all SAP applications must continue to be hosted in Nigeria.
- NAPIMS must be fully involved in the project and regularly updated on project milestones.
- NAPIMS requires detailed engagement on the full scope of the project. This includes 2010 to 2012 programme activities and background information on SAP operations and SAP ECC6 upgrade.

Additional engagement with JV partners will be held in Q1 2010 to present the full scope of the project. This will fulfil one of the conditions imposed on the approval.

Phased Expenditure Breakdown						
Key Activities	2009	2010	2011	2012	Total 100% JV	Total Shell Share
Preparation	0	0	0	0	0	0
Central Team manpower	0	972,882	530,339	0	1,503,221	450,966
Central Project landscape	0	125,625	42,827	0	168,452	50,536
Increased R&M 2011 Infra	0	207,675	42,113	0	249,788	74,936
Assessment Tools	0	26,410	147,752	0	174,162	52,249
Other (T&E , Social Events)	0	12,848	9,279	0	22,127	6,638
Wave 2 - Functional upgrade			209,138	418,275	627,413	188,224
Dual Currency Migration	0	40,000	0	0	40,000	12,000
Local Cost - Manpower & Consultancy	0	562,400	40,000	40,000	642,400	192,720
Project Contingency	0	500,000	100,000	0	600,000	180,000
Total Opex (Cat2)		2,447,840	1,121,448	458,275	4,027,562	1,208,269
Total Capex (Cat3)	0	5,251,000	7,167,000	88,000	12,506,000	3,751,800
Total	0	7,698,840	8,288,448	546,275	16,533,562	4,960,069

Section 8: Group financial reporting impact

The impact on Shell Financial Statements is considered immaterial and so no financial table is applicable.

Section 9: Disclosure

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

Section 10: Financing

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

Section 11: Taxation

The completion of the SAP Upgrade Project shall have appropriate tax treatment in line with statutory requirements.

Section 12: Key Parameters

The key parameter of the proposal for which approval is sought:

To provide \$4.96mln (Shell Share) for the payment of upgrade of the SAP central environment before the end of 2012.

Section 13: Signatures

This Proposal is submitted to EPG Directors for approval.

Supported by:

For Business approval:

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Rob van Velden

Bernard Bos

SPDC - Finance Director

EPG VP Finance

EPF-G-T

EPF-G

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

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

Initiator: Benson Oseji

Project Manager (EPT--IT-G-BA)

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

Appendix - 3rd Party (Global) and Local Hosting Overview

Local Hosting

S/N	Activity	Acquisition & Total Ownership Expenditures					
		2010	2011	2012	2013	2014	2015
1	Server Hardware (IBM P570)	2,175,911	5,408,647				
2	Enterprise Storage & Accessories	2,000,000					
3	Server Software	194,778	565,179				
4	Data Center Readiness	20,000					
5	Server HW installation/setup	30,000	50,000				
6	Storage HW installation/setup		30,000				
7	Sys Support Training (5 Ops staff)	20,000					
8	Travels (Implementation and Training)	30,000	13,000				
9	TSYS Proj Mgmt & Travels	100,000	250,000	50,000	12,000		
10	Local Project Management	200,000	200,000	20,000			
11	Post Warranty Maintenance				200,000	200,000	200,000
12	Additional OPEX Cost Projection		200,000	200,000	200,000	720,000	720,000
13	R&M FTE - Basis activities	649,507	779,408	935,290	1,122,348	1,346,818	1,616,181
14	Contingency (~10%)	542,020	749,623	120,529	153,435	226,682	253,618
	TOTAL	5,962,216	8,245,858	1,325,819	1,687,783	2,493,499	2,789,799
							22,504,974

Global Hosting by 3rd Party (T-Systems)

Hosting, Storage & Standard SAP operations based on current level of operations:

S/N	Activity	Leased Expenditure Costs					
		2010	2011	2012	2013	2014	2015
1	Dynamic Services	661,358	1,449,163	1,423,507	1,423,507	1,423,507	1,423,507
2	BIA Servers	159,608	159,608	159,608	159,608	159,608	159,608
3	Migration Costs	548,256					
4	Local Project Mgmt	200,000					
5	Delta Baseload - SPDC (BLP 2010 budget)	1,137,620	1,137,620	1,137,620	1,137,620	1,137,620	1,137,620
6	Delta Baseload - SNEPCO (BLP 2010 budget)	207,000	207,000	207,000	207,000	207,000	207,000
7	Contingency (~10%)	270,885	274,840	272,275	272,275	272,275	272,275
	TOTAL	3,184,727	3,228,231	3,200,010	3,200,010	3,200,009.9	3,200,010
							19,212,998

The annual SAP Blueprint & Business Improvement Charges, Maintenance fees, FTE for Security/profile administration, 1st & 2nd line support, applicable in both scenarios, are exclusive of the above analysis. This is in the tune of F\$11.5m in 2010