Group Investment Proposal

Business unit	Upstream International Operated, Nigeria/Gabon, Shell Petroleum Development Company (SPDC)
Shareholders / partners	Shell 30%, Nigeria National Petroleum Company (NNPC: 55%), Total Exploration and Production Company Nigeria (TEPNL 10%), Nigeria Agip Oil Company (NAOC: 5%)
Amount (Shell share) MOD, 50/50	**USD 18.4 Mln**
Project	Gbaran-Ubie Security of Supply (SoS) Project

Summary Economics RV-RT14	NPV 7 (USD mln)	RTEP (%)	VIR7
Base case	849.7	>50%	48.37
Low case	648.4	>50%	36.91
High case	1,044.2	>50%	59.44

Proposal Management Summary

This Investment Proposal requests approval for funding of US$18.4mln Shell Share which is required for the execution of the Gbaran-Ubie Security of Supply Project. This project has the objective of securing an uninterrupted gas supply from the Gbaran CPF to the Nigerian LNG Company, by providing an alternative route for evacuating produced condensate (circa 30Mbpd) via the EGGS2 line. The project has a P50 cost estimate 100%JV of $61.3mln

The project will be funded via the JV base budget and has been included in the OP14 budget requirement.

Capex (F$'000 MOD)	2014	2015	Total
OP'14 Capex Phasing (100% JV)	41.1	20.2	61.3
Shell Share (30%)	12.3	6.1	18.4

Value Proposition and Economics Summary

The overriding business driver is to secure an uninterrupted gas supply from the Gbaran CPF to the Nigerian LNG Company whilst improving environmental performance by diverting the attention of condensate line vandals

Summary Economics

The economics evaluation was carried out as an incremental evaluation on a forward-looking basis using contractor cost estimates and two production forecasts:

1. NFA production forecast
2. NFA production forecast with the deferment improvement

Sensitivity analysis was carried out to determine the values of the project at different price scenarios and high CAPEX. An additional BVA (Benchmark Verified and Approved) sensitivity was evaluated to address cost disputes with NNPC resulting in a 1.5% cost mark up. For each of these sensitivities, the project showed very robust economic indicators. This is due to the low capital expenditure and the utilization of existing facilities.

PV Reference Date: 1/7/2014	NPV (S/S $ mln)		VIR	RTEP	UTC (RT $/boe)		Payout-Time (RT)	Maximum Exposure (RT- AT)
Cash flow forward from: 1/1/2014	0%	7%	7%	%	0%	7%	(yyyy)	$mln (yyyy)
Base Case								
SV ($70/bbl)	879.0	648.4	36.91					
RV ($90/bbl)	1,152.3	849.7	48.37	>50%	6.1	0.2	2014	2014(5.9Mln)
HV ($110/bbl)	1,414.5	1,044.2	59.44					
Sensitivities (using RV-RT14)								
High CAPEX (P90)		847.7	40.21					
1.5% BVA		838.7	37.12					

Economic Assumptions

- Condensate price at the three PSVs: SV, RV and HV ($70/bbl, $90/bbl and $110/bbl respectively RT14) with applicable offsets.
- 2014 NLNG Gas PSV RT14
- Gas taxed under CITA with Associated Gas Framework Agreement (AGFA) incentive.
- Education Tax of 2% assessable profit
- NDDC levy of 3% total expenditure
- GHV of 1150btu/scf for Export gas
- Abandonment estimated as 10% of total RT CAPEX
- SP Cost was provided by project team
- ABC opex provided by project team
- ARPR 31/12/2013 variable OPEX for Gbaran CPF was used
- SPDC Generic Opex used
  - Oil fixed OPEX ; 3% of cum. oil CAPEX,
  - Gas fixed OPEX ; 3.5% of cum. gas CAPEX

- Condensate taxed under PPT (PPT tax rate of 85%)

Risks and Alternatives

1. Integrity of refurbished reciprocating pumps

To meet the fast tracked schedule for the project, the reciprocating condensate spiking pumps that would initially be installed are pumps sourced in-house with missing parts and requiring refurbishment to make them suitable for the service. There may be integrity issues when the pumps are put into service

Mitigations:

a. The refurbishment of the 4 pumps is being done by the SPDC workshop (with OEM input) that has carried out similar service in the past including Soku condensate spiking, learning from the Soku Condensate spiking project would be applied.
b. The project scope also involves the purchase of new centrifugal pumps that would ultimately replace the refurbished ones (post 2014)

2. Liquid handling capacity at the Nigerian LNG in Bonny

With the spiking of the condensate into the EGGS2 line, the design is to evacuate a maximum of 30Mbpd condensate to the Nigerian LNG Company at Bonny. SPDC condensate quota flowing through NLNG is constrained to 30mbpd because the liquid handling capacity at NLNG cannot currently handle the amount of liquid expected from all IOCs producing gas to NLNG. Furthermore, combined production of Soku and Gbaran condensate will exceed SPDC's quota if not managed.

Mitigations:

a. This risk is being handled corporately and there are plans in place by NLNG for the expansion of their liquid handling capacity.
b. Simultaneous export of condensate from Soku GP and Gbaran CPF through NLNG will also be managed by Corporate Production centre

3. Risk of Cost Recovery

NAPIMS support the project but do not support the single source contracting strategy initially adopted. The change in strategy from single source to limited bid list because of unacceptably high bid from the single source tender has been communicated to NAPIMS but they are yet to support the revised strategy. Further engagement of NAPIMS is ongoing to secure support for revised strategy. However until NAPIMS support is received there is the risk that SPDC will not be able to recover costs incurred on the project. However IOC partners (Total and AGIP) support the project and execution strategy to enable delivery of phase 1 in 2014

Mitigations:

a. SPDC MD has issued a letter to NAPIMS declaring this as an emergency project and highlighting the urgency required to progress work on the project
b. Continuous engagement with NAPIMS and other JV partners

HSSE & SP Risks:

4. Brownfield Integration and project works in live plant

The project involves Brownfield integration and would be carried out in a live plant. There are both HSSE and project execution risks associated with this scenario

Mitigations:

a. Approved Concurrent operations plan and Matrix of Permitted Operations (MOPO) will be enforced, including robust procedure for managing Hydrocarbon under pressure (Gas) alongside Permit to work system, Positive isolation requirements, Gas testing, equipment selection/certification with 100% site supervision. In addition include other fire prevention measures such as plant shutdown, use of intrinsically safe equipment, fire tenders and habitats as applicable.

5. Risk of Transportation (Land and Marine):

Transportation remains a high risk for us as a Company and in this project. There will be transportation of equipment and personnel both by Land and water, where land alone is not feasible.

Mitigation

a. During this Project, a journey management procedure / plan (Land and Marine) will be instituted with Journey Managers appointed to implement the procedures. Monitoring systems and feedback processes will be in place for continuous improvement. In addition, every journey request will be challenged, and optimized where possible, to reduce exposure. Prior to embarking on any journey, the Security Operating Level (SOL) shall be confirmed.

6. Lifting and Hoisting:

Lifting of heavy equipment forms part of this project and remains a high risk area

Mitigation

a. Every Lifting and Hoisting activity will be guided by a lifting plan and fully supervised by a competent person. Capacity of all lifting devices and the weight of loads to be lifted shall be confirmed prior to lifting. In addition, every lifting device (crane & accessories) will undergo pre-mobilisation /certification and on the spot verification before use.

7. Emergency Preparedness

We recognize that this project will put further stress on the response preparedness of the Gbaran CPF.

Mitigation

a. In order to adequately manage all emergency situations/ incidents, an emergency response plan will be put in place and agreed jointly with the Asset Team. Emergency scenarios will be identified and preparedness tested at regular intervals.

b. Adequate resource (buses in case of land) shall be provided to evacuate all personnel on site in an emergency
c. An additional ambulance vehicle may also be required for individual site specific cases
d. A well equipped site clinic (with a qualified nurse in attendance) and an approved retainer ship clinic shall also be provided
e. Adequate number of DFAs (Designated First Aiders) as per established ratio shall be provided

8. Security Risk:

The project is located in the Niger Delta, where security issues are particularly significant. This is highlighted by cases of hostage taking and armed attacks. Additionally, deteriorating Security situation in the Northern part of the Country, in the form of targeted bombing, could migrate down south and requires that this risk be carefully monitored:

Mitigation

a. The amnesty program of the federal government has helped to calm the security situation although uncertainty still pervades. Based on outcome of security risk assessment, a detailed project security plan for the project will be developed /approved. Additionally, the security operating level of the area will be assessed regularly to determine necessary line of action should be a change in the Security risk level.

Carbon Management

The proposal will not add additional amount of flare gas hence Carbon Management effects have not been considered.

Corporate Structure and Governance

The existing corporate structure and governance arrangements of SPDC-JV with SPDC as operator still subsist for this investment.

Group and Business Standards

There are no significant accounting and/or reporting risks or opportunities associated with this proposal. This proposal complies with Shell Group Business Principles, policies and standards. Functional support for this proposal is provided by Projects & Technology (P&T), Finance, Social Performance, Contracting & Procurement, HSE, Operations, Legal, Security, Treasury, Controllers and Tax functions

Project Management, Monitoring and Review

Project Assurance is in place for all work scope and management of change. This is a "P&T executed" project with P&T being accountable for the delivery of technical project integration and execution. A DRB with UI Nigeria and P&T participation is in place.

Budget Provision

The project was included in the OP14 base plan with a 50/50 Capex estimate of USD 18.4Mln (Shell Share). It is proposed that the project budget requirement will be from the JV base budget

Group Financial Reporting Impact

Not Applicable

Disclosure

Material disclosures, if any, will be done in line with the Group Disclosure Guidelines.

Financing

Shell share of the capital expenditure will be met by OU's own resources. Expenditure related to this project will be accounted for in line with Group Policy

Taxation

No extraordinary tax issues would arise from this proposal.

Functional Support

Initiator	Project Lead	Project Manager	*Other* (see eIP)*
Name: *Yewande Alikah*	*Name:* *Emina Williams*	*Name:* *Afolabi Ojo*	*Name:*
Date: 22/05/14	*Date:*	*Date:*	*Date:*

Signatures

Janssens, Guy FM, Nigeria & Gabon		Markus Droll VP, Nigeria & Gabon
Date:		*Date:*
Approved		*Approved*

Appendix A - Detailed Project Parameter Data

Project Focal Point / Indicator	Afolabi Ojo
DRB: Decision Executive if applicable	David Martin
DRB: Members if applicable	Esben Johnsen: BOM Toyin Olagunju Bernard Bos Boma Brown Tom Everitt Jan van Bunnik Banji Adekoya

Performance Parameters	Unit	OP14	GIP	Variance details
Total GIP Capex (Shell share)	USD Mln	18.4	18.4	*N/A*
FID Date	MMM/YY	Jun/14	Jun/14	*N/A*
First Oil/Gas Date	MMM/YY	Nov/14	Nov/14	N/A

Performance Parameters	Unit	OP14	GIP	Variance details
Proved Developed Reserves (GES[1] @ RV-RT)	MMboe			
Expectation Developed Reserves (GES or SWIS[2])	MMboe			
UDC [3] (MOD)	USD/boe			
Oil - Initial Rate (100%)[4] Gas - Capacity (100%)[4]	b/d – Oil MMscf/d-Gas			

Major Milestones

S/No	Date	Description
1	June 2014	Contract Award
2	June 2014	Mobilize Contractor to Site
3	July 2014	Complete Detailed Design
4	Sept 2014	Complete Installation & Hook-Up