The Shell Petroleum Company Limited
Internal Investment Proposal

Summary Information

<table>
<tr><td>Business unit and company</td><td>Shell Petroleum Development Company of Nigeria</td></tr>
<tr><td>Group equity interest</td><td>100% in SPDC, whereas SPDC is the Joint Venture (JV) operator of an unincorporated JV with a 30% interest.</td></tr>
<tr><td>Other shareholders / partners</td><td>Nigeria National Petroleum Corporation (NNPC: 55%), Total Exploration & Production Nigeria Limited (TEPNG: 10%), Nigeria Agip Oil Company (NAOC: 5%) in SPDC-JV.</td></tr>
<tr><td>Business or Function</td><td>Projects & Technology (P&T)</td></tr>
<tr><td>Amount</td><td>US$0.83mln Shell share MOD 50/50. (US$2.76mln 100% JV)</td></tr>
<tr><td>Project</td><td>Pre-FID for Gbaran –Ubie Nodal Compression</td></tr>
<tr><td>Main commitments</td><td>
<table>
<tr><th>Description</th><th>Requested (Shell Share)</th><th>Complete Budget (100% JV)</th></tr>
<tr><th></th><th colspan="2">F$ mln</th></tr>
<tr><td>FEED</td><td>0.60</td><td>2.01</td></tr>
<tr><td>PMT</td><td>0.23</td><td>0.76</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>Total OPEX</td><td>0.83</td><td>2.76</td></tr>
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<tr><td>Source and form of financing</td><td>This Pre-FID investment will be financed with JV funding; this investment was supported by the JV partners at the 2012 Budget Devcom.</td></tr>
<tr><td>Summary cash flow</td><td>Cost Only evaluation. Cash flow plot not applicable.</td></tr>
<tr><td>Summary economics –</td><td>
<table>
<tr><th>Summary Economics (RV-RT13)</th><th>NPV7 (USD mln)</th><th>RTEP (%)</th><th>VIR7</th></tr>
<tr><td>Base case</td><td>-0.6</td><td>NA</td><td>NA</td></tr>
<tr><td>High Opex</td><td>-0.7</td><td>NA</td><td>NA</td></tr>
<tr><td>Full Life Cycle</td><td>229.5</td><td>49</td><td>2.88</td></tr>
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Section 1: The proposal (management summary)

Approval is sought for US$0.83million SS MOD to progress Front End Engineering Design (FEED) and PMT for the Gbaran Nodal Compression project.

The objective of the Gbaran Nodal Compression Project is to sustain gas supply to NLNG beyond 2017 by increasing the Ultimate Recovery of Gbaran Phase 1 and 2A fields by 1.4Tscf (base case) and 7.4MMstb of associated condensate through nodal NAG compression.

The Gbaran Nodal Compression Project passed DG1 in June 2011 and was fast matured to DG2 in October 2011 employing the Lean HDP process, thereafter the project passed DG3 in September 2012.

Funding for the Pre-FID investment will be financed with JV funding and Shell Share capital expenditure will be met by SPDC's own cash flow. A provision for this expenditure has been included in the BP12 and support for the 2013 budget received from NAPIMS and other JV Partners. The yearly phasing for the project type 2 cost estimate is shown in Table 1 below.

The 50/50-project cost for this proposal is US$0.83mln Shell share (US$2.76mln 100% JV) OPEX.

	2013	2014	2015	2016	2017	2018	Total
Engineering	1,434	574	3,730				5,738
Procurememt			36,253	99,697	45,317		181,267
Construction			2,698	53,968	67,459	10,794	134,919
PMT	370	386	6,433	9,650	12,866	2,461	32,166
SCD			1,408	5,071	3,722	521	10,722
Total	**1,804**	**960**	**50,523**	**168,385**	**129,364**	**13,775**	**364,811**

Table 1: Full Project Expenditure

Section 2: Value proposition and strategic and financial context

2.1 Justification for Pre-FID Expenditure

The proposed Pre-FID expenditure is required to commence FEED which would secure the Q1 2018 RFSU date.

2.2 Production and Reserves

The Gbaran Nodal Compression project will increase the Ultimate Recovery of Gbaran Phase 1 and 2A fields by 1.4Tscf (base case) and 7.4MMstb of associated condensate.

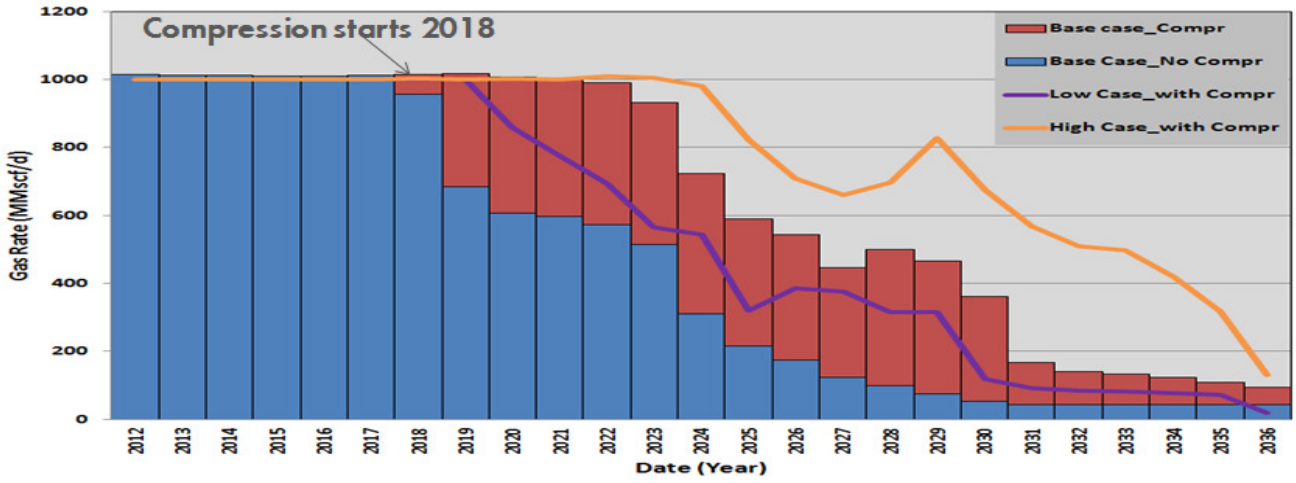

Fig 1: Production forecast with start of compression in 2018

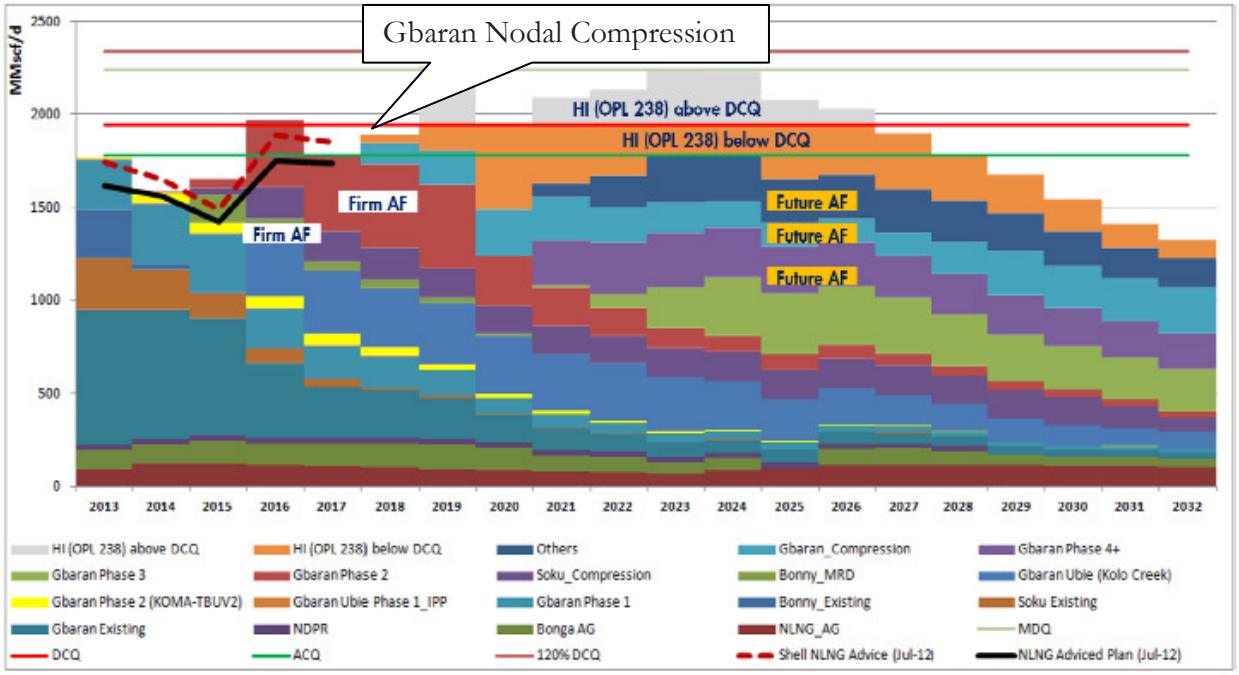

Fig 2: NLNG Trains 1-6 Supply plot

2.3 Summary Economics

The Pre-FID economic evaluation was carried out as a cost-only evaluation on a forward looking basis using 50/50 Level II cost estimates.

Pre- FID costs were treated as Opex. Details are shown in Table 2 below.

The following sensitivities were carried out on the pre-FID base case to show the impact of the various scenarios on the value of the project.

- High Opex.

Further analysis was carried out to ascertain the value of the project's full scope when the project takes FID using the 50/50 level II full project cost estimates and the incremental production forecast. Details in Table 4

PV Reference Date: 1/7/2013	NPV (S/S $ mln)		VIR	RTEP	UTC (RT $/boe)		Payout-Time (RT)	Maximum Exposure (RT- AT)
Cash flow forward from: 1/1/2013	0%	7%	7%	%	0%	7%	(yyyy)	$mln (yyyy)
Base Case								
SV ($70/bbl RT13) *								
RV ($90/bbl RT13)	-0.6	**-0.6**	**NA**	N/A	N/A	N/A	N/A	0.6 (2014)
HV ($110/bbl RT13) *								
Sensitivities (using RV)								
High Opex		**-0.7**	**NA**					

* SV and HV same as RV as a cost only evaluation

Table 2: Economics summary (Shell Share)

Parameter	Unit	BP12 Provision	Low	Mid	High	Comments
Capex (MOD)	US$ mln	109.53	N/A	N/A	N/A	BP12 value represents full project scope
Opex (MOD)_Project	US$ mln	NA	N/A	0.83	0.995	Pre-FID Costs
Production Volume	mln boe					
Start Up Date	mm/yy					
Production in first 12 months	mln boe					

Table 3: Key project parameters (Shell Share)

PV Reference Date: 1/7/2013	NPV (S/S $ mln)		VIR	RTEP	UTC (RT $/boe)		Payout-Time (RT)	Maximum Exposure (RT- AT)
Cash flow forward from: 1/1/2013	0%	7%	7%	%	0%	7%	(yyyy)	$mln (yyyy)
Base Case								
SV ($70/bbl RT13)	404.8	**169.1**	**2.13**					
RV ($90/bbl RT13)	538.7	**229.5**	**2.88**	49	2.9	4.0	2019	*78.1(2017)*
HV ($110/bbl RT13)	666.7	**287.3**	**3.61**					

Table 4: Full Project Scope Economics Grid (Shell Share)

Economics Assumptions

Pre-FID Investment

- NDDC levy 3% of total expenditure.

Full Project Scope

- Oil PSVs of $70/bbl @SV-RT13, $90/bbl @RV-RT13 (base) and $110/bbl @HV-RT13 with appropriate Bonny offset applied.
- 2013 NLNG PSV was used.
- Oil was taxed under PPT (PPT tax rate of 85%).
- Gas was taxed under CITA with AGFA incentives.
- NDDC levy of 3% total expenditure.
- Education tax of 2% assessable profit.
- GHV of 1150 BTU/Scf used.
- Gas flare penalty of $3.5 /Mscf was applied and is not tax deductible
- Abandonment cost is estimated at 10% of total project RT CAPEX.

Section 3: Risks, opportunities and alternatives

Risks and mitigation plans
The key risks and mitigations for the project are discussed below.

Risks	Planned Mitigations
Funding for this opportunity is yet to be ascertained	Pre-FID funding requirement will be met through JV funding arrangements; however there is currently no agreed funding mechanism for the post FID phase. Funding mechanism based on the MCA model which has been used for the Gbaran 2 bundle will be investigated.
Maintenance of Compressors	Improvement opportunities exist for the operation and maintenance of compressors, which would reduce downtime
Limited production and pressure data	The Gbaran Phase 1 fields have only been producing for about 2 years. Data would be provided as it becomes available
The Petroleum Industry Bill (PIB)	The PIB has not yet been signed off and the gas fiscal terms might change. This could potentially negatively impact the economics of this project
Expiration of Oil Mining Lease	Gas production in Gbaran is from Oil Mining Leases (OMLs) that will all expire in 2019. License extension beyond 2019 is required for this project.
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	The amnesty programme 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 has been developed which dovetails into relevant operations security plan. The security operating level of risk will be assessed from to time to determine necessary line of action when there is a change in risk level. In the event of unforeseen incidents, all of the identified mitigation measures are backed up by emergency response preparedness, both on the part of the contractors and in collaboration with SPDC depending on severity.
Project Works in live plant (Gbaran CPF)	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, etc
Opportunities	
Additional reservoirs in the node (essentially NAG reservoirs and gascap blowdowns) could be developed in subsequent phases to further extend the production plateau and could also benefit from compression.	
A compression design at the Gbaran CPF that allows for future expansion, in case of better than expected reservoir performance and/or additional reservoirs coming on stream, will allow for "quick" expansion as required	
A further (high pressure) exploration drilling campaign of prospects in the node is planned to commence in 2013. Any discovery will be matured thereafter.	

Alternatives
Various development alternatives were considered. These include

1. Maximum UR concept- This has NAG compressors at each wellhead or inter field manifold, it was dropped at the feasibility stage because of the high cost and associated SD foot print.
2. Lowest CAPEX concept- This is based on the use of the idle AG compressor at the CPF for NAG compression, it was dropped due to SPDC AG compressor sparing policy.
3. Original CPF Design Philosophy- This is similar to Keep Gbaran Full concept, but compression is initiated late (i.e. post-CPF production decline) and puts all the fields on compression at the same time. This does not extend the CPF plateau and recovers less incremental compression volume compared to Gbaran CPF.

The robustness of the Keep Gbaran Full concept select decision was supported at the Concept Select workshop (CSW), the integrated technical review (ITR 3) and the project assurance review (PAR 3). Partners were invited to the CSW and the PAR and are fully aligned on the preferred development concept of "Keep Gbaran Full".

Section 4: Carbon Management
The Gbaran nodal Compression project facilities Greenhouse gas emissions was covered in the original Gbaran CPF plant design basis; it shows that the facilities GHG emissions and energy consumption are within the EP carbon management materiality criteria. The Gbaran phase II Environmental Impact Assessment (EIA) covers NAG compression in Gbaran CPF; hence emissions and impact assessment are considered in the plant design. During FEED, addendums will be written to the Gbaran Ubie phase I Greenhouse Gas and Energy Management plans (GHG&EMP).

Section 5: Corporate structure, and governance
The existing corporate structure and governance arrangements of SPDC-JV with SPDC as operator still subsist for this investment.

Section 6: Functional Support and consistency with Group and Business Standards
This proposal complies with Group Business Principles, policies and standards. Functional support will be obtained from Finance, Technical, Commercial, HSE/SCD and Legal.

Section 7: Project management, monitoring and review
The project DG3 submission has been approved at the DRB meeting of the 18th September 2012. ITR and PAR were held in June and July 2012 respectively to ensure integration and provide assurance, 21 of 22 high urgency actions have been closed out with the last one in progress.

There is an identified Decision Executive, Business Opportunity Manager and Project manager, the existing NLNG Supplies Project DRB will control any major change proposals and value delivery will be monitored via regular (PERT) reviews.

Section 8: Budget provision
The project cost has been included in the BP12 and support for the 2013 budget received from NAPIMS and other JV Partners

Section 9: Group financial reporting impact
There are no unusual accounting issues related to this GIP. Expenditure related to the project will be accounted for in line with Group Policy. The financial impact of this proposal on Shell Group financial is as indicated in the table below:

US$ mln	2013	2014	Post 2014
Total Commitment	0.54	0.29	0
Cash Flow			
SCD Expenditure			
Pre-FID Expenditure	0.54	0.29	0
Capital Expenditure			
Operating Expenditure	0.02	0.01	0
Cash flow From Operations	-0.39	-0.21	0
Cash Surplus/(Deficit)	-0.39	-0.21	0
Profit and Loss			
NIBIAT +/-	-0.39	-0.21	0
Balance Sheet			
Avg Capital Employed			

Section 10: Disclosure
Disclosures, if required, will be done in line with existing Group and SPDC policies and guidelines.

Section 11: Financing
The Pre-FID portion of this investment will be financed with JV funding and Shell Share capital expenditure will be met by SPDC's own cash flow. However, there is currently no agreed funding mechanism for the post FID phase. Discussions are ongoing to explore alternative funding mechanism, it is expected that this agreement will be concluded before the project takes FID.

Section 12: Taxation
Taxation assumptions have been reviewed and no material tax risks have been identified.

Section 13: Key Parameters

Approval for US$ 0.83 million SS MOD (US$2.76mln 100% JV) to carry out Front End Engineering Design (FEED) and PMT for the Gbaran Nodal Compression project

Section 14: Signatures

For Business Approval:

.....
Olagunju, Toyin
GM Nigeria, Operated
Date.... /.... /...

For Business Approval:

.....
Van Bunnik, Jan
SPDC Finance Director
Date.... /.... /....

GLOSSARY

AF – Alternative Funding

CPF – Central Processing Facility

DPR – Department of Petroleum Resources

DRB – Decision Review Board

FEED – Front End Engineering Design

GMoU – Global Memorandum of Understanding

HEMP – Hazard & Effects Management Process

HSE – Health, Safety & Environment

HV – High Value

ITD – Inception To Date

IOC – International Oil Companies

MCA – Modified Carry Agreement

MOD – Money of the Day

MOPO – Matrix of Permitted Operations

NAG – Non Associated Gas

NAPIMS – National Petroleum Investment Management Services

NCDMB – Nigerian Content Development Management Board

NLNG – Nigeria Liquefied Natural Gas Limited

NPV – Net Present Value

PIB – Petroleum Industry Bill

PMT – Project Management Cost

PPT – Petroleum Profit Tax

PSV – Project Screening Value

RFSU – Ready For Start Up

RT – Real Term

RTEP – Real Term Earning Power

RV – Ranking Value

SCD – Sustainable Community Development

SV – Screening Value

VAT – Value Added Tax

VIR – Value Investment Ratio

Appendix 1: Gbaran Nodal Compression Project Scope and Schematics

Project Scope Description

1. Installation of 2 x 200MMscf HP gas compressors at the Gbaran CPF
2. MP Pressure gas gathering manifold at the CPF
3. On plot piping and connection
4. Utilities
5. Pipe racks and Perimeter roads

A 2 x 200 MMscfd compression configuration has been selected as optimal considering lifecycle development, economic indices and standardization. In addition to the installation of the 2 x 200 MMscfd compression modules, the scope of this development will cover the tie-in of the NAG compression module to the CPF. Each compression module will include a suction cooler, suction scrubber, centrifugal compressor, gas turbine driver, after cooler and associated piping, utilities and auxiliaries.

Other installations to be made within the CPF footprint include 3rd instrument air package, piperack extension, 3rd XHP separator (optional) with associated condensate heater and a Field Auxiliary Room (FAR) for telecom/electrical/controls systems.

Brownfield modifications to the CPF will be primarily at the slugcatchers, XHP and HP separators, extension and tie-in to existing utilities and configuration of existing control and safeguarding system to accommodate the extra items.

Minimal modifications are envisaged at the wellhead and manifold locations and this would primarily be in the reconfiguration of the wellhead and manifold controls to achieve 40 barg arrival pressures at the CPF. An extension of the perimeter road and fencing around the NAG compression area, to incorporate same within the CPF footprint and other site preparation, piling and foundation work would also be carried out.