Group Investment Proposal

Summary information

<table>
<tr><td>Business unit and company</td><td>Shell Petroleum Development Company of Nigeria Limited (SPDC)</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>Nigerian National Petroleum Corporation (NNPC: 55%), Total E&P Nigeria Ltd (10%), and Nigerian Agip Oil Company (NAOC: 5%)</td></tr>
<tr><td>Business or Function</td><td>Upstream International (UI)</td></tr>
<tr><td>Amount</td><td>US$492mln Shell share, MOD, 50/50 is requested for approval in this proposal of the 100% JV estimate of US$780mln. US$80mln 100% JV has been approved in the Pre-FID proposal. This proposal includes Shell equity share (30%) of US$234mln and Shell’s MCA commitment to NNPC of US$258mln</td></tr>
<tr><td>Project</td><td>Trans Niger Pipeline (TNP) Loopline Project</td></tr>
<tr><td>Main commitments</td><td>
<table>
<tr><th>Description</th><th>Pre-FID Proposal ($mln 100% JV)</th><th>Requested Budget ($mln 100% JV)</th><th>Complete Budget ($mln 100% JV)</th><th>Complete Budget ($mln Shell Share)</th><th>This Proposal ($mln 30% Shell Share)</th><th>NNPC MCA Carry (36.67% Shell Share)</th><th>Total Shell Share (Equity + Carry)</th><th>Total Shell Share (Equity + Carry) This Request</th></tr>
<tr><td>Pipelines CAPEX</td><td>77</td><td>703</td><td>780</td><td>234</td><td>211</td><td>258</td><td>492</td><td>469</td></tr>
<tr><td>Owners Cost (Exclusive of SCD cost)</td><td>3</td><td>60</td><td>63</td><td>19</td><td>18</td><td></td><td>19</td><td>18</td></tr>
<tr><td>SCD OPEX</td><td>-</td><td>17</td><td>17</td><td>5</td><td>5</td><td></td><td>5</td><td>5</td></tr>
<tr><td>Total 50/50 MOD</td><td>80</td><td>780</td><td>860</td><td>258</td><td>234</td><td>258</td><td>516</td><td>492</td></tr>
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</td></tr>
<tr><td>Source and form of financing</td><td>This investment will be financed with Alternative Funding (AF) and Shell share capital expenditure will be met by SPDC’s own cash flow and / or the existing shareholder facility. Formal JV partners’ approval will therefore be obtained.</td></tr>
<tr><td>Summary cash flow</td><td>Cost only Project. Cash Flow chart not applicable.</td></tr>
<tr><td>Summary economics</td><td>
<table>
<tr><th>Summary economics (RV-RT12)</th><th>NPV7 (USD mln)</th><th>RTEP (%)</th><th>VIR7</th></tr>
<tr><td>Base</td><td>-103.5</td><td>NA</td><td>-0.25</td></tr>
<tr><td>High CAPEX</td><td>-124.5</td><td>NA</td><td>-0.25</td></tr>
<tr><td>Value at Risk</td><td>3,710.2</td><td>>50%</td><td>NA</td></tr>
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Section 1: The proposal (management summary)

This Group Investment Proposal seeks approval for funding of $234mln Shell equity share ($780 mln, MOD, 50/50 100% JV) plus additional MCA commitment of $258mln bringing total Shell Share to $492mln for the execution of Trans Niger Pipeline Loopline Project.

Trans Niger Pipeline Loopline project will ensure SPDC continuous freedom and license to operate and enable the evacuation of about 109 Mbpd (Business Plan 2011) of Land East area, condensate from Gbaran & Okoloma gas plants and third party production to Bonny terminal via an alternative route from the existing Trans Niger Pipeline thus providing opportunity for the remediation of existing TNP right of way which has been devastated by crude oil bunkerers and vandals.

The need to loop the Trans Niger Pipeline was identified early 2007. The project Contract Strategy was approved by the SPDC Major Tender Board and the Group Project Contract Board respectively. A VAR4 and Estimate & Schedule Assurance Review (ESAR) was held from 30th of May to 3rd of June 2011.

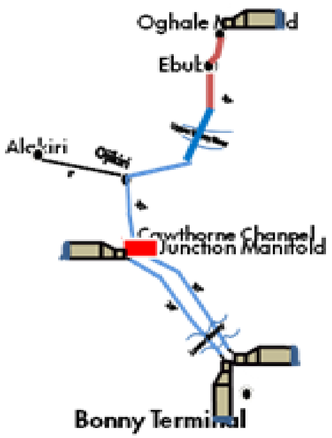
Project Objective

The objectives of executing Trans Niger Pipeline Project are:

- Provide opportunity for full environmental restoration of the impacted TNP Right of Way around the Ogoni area following incessant pipeline vandalism and illegal refineries.
- Enhance TNP system reliability by providing alternative loopline rated to required maximum allowable operating pressure. This therefore overcomes the production constraints in the existing TNP due to its progressive de-rating and its associated environmental risks.
- To secure the evacuation of 109 Mbpd (oil and condensate) of current Land East production to Bonny Oil & Gas Terminal by providing an alternative route for the Oghale – Bonny section of the TNP which has outlived its design life, is inaccessible for maintenance and has poor integrity status.
- Provide easy access for maintainability, freedom to operate (FTO) and License to Operate (LTO).
- Provide ullage for liquid hydrocarbon evacuation for developments from Gbaran Ubie and Okoloma gas plants thereby ensuring gas supply to NLNG and support Afam Power plant and other Federal Government electrification projects.

Project Scope

To mitigate the risk of schedule elongation, the project shall be let in three Engineering, Procurement and Construction (EPC packages) to three different Contractors thus:



Package1: This shall cover the first 30" x 12.5km Oghale to Tie-in Point 1 (Eleme/Ogu Bolo) all land terrain.

Package2: This shall cover the second 30" x 25.5km Tie-in Point 1 (Eleme/Ogu Bolo) to Cawthorne Channel Junction Manifold and the 8" x 2.4km Alakiri-Ojikiri spurline all swamp terrain.

Package3: This shall cover the third 30" x 20km leg and the 24" x 20km loop leg from Cawthorne Channel Junction Manifold to Bonny Oil & Gas Terminal all swamp terrain.

An earlier Pre-FID cost of US$80mln (100% JV) was approved to cover the following scope:

- Front End Engineering Design (FEED) - *Completed*
- Survey – *ongoing and to be completed by Q3/12*
- Land Acquisition – *in progress, to be completed by Q3/12*
- Environmental, Social, Health Impact Assessment (ESHIA) – *Awaiting Regulators' approval*
- Project Management Cost - *ongoing*
- Procurement of Long Lead Items (LLIs) – *50% of linepipes ordered overseas have been delivered and coating commenced. The second half ordered in country is expected by end 2012.*

Target

Contingent upon GIP approval and Funding in place by July 2012, On Stream Date aspiration by Project team (P10) Promise, P50 Promise and P90 Promise are June 2015, October 2015 and March 2016 respectively.

Funding

The estimated total cost for the TNPL project is $860mln (MOD, 100%) comprising $80mln (MOD, 100%) Pre-FID approval and $780mln (MOD, 100%) current proposal.

This proposal is made up of a total CAPEX cost of $703mln (MOD, 100%), Owners Cost (exclusive of SCD OPEX) of $60mln (MOD, 100%) plus SCD OPEX cost of $17mln (MOD, 100%). Sensitivity for MCA funding is included in the economics. For MCA funding, TNPL is bundled with Soku Pipelines, Awoba FOD and Nembe Creek Phase 2 projects.

The total project expenditure and phasing is shown below. These figures have incorporated all recommended action from the final outcome of VAR4 and ESAR4 concluded in June 2011.

Table 1: Expenditure Phasing (100% JV, US$ mln MOD 50/50)

Cost Phasing (FUS$mln)							
	Pre-FID	**2012**	**2013**	**2014**	**2015**	**2016**	**Total**
CAPEX	77	42	236	271	107	47	**780**
PMT	3	9	18	21	8	4	**63**
SCD - Opex		0	6	7	3	1	**17**
Shell Share Equity (30%)	23	12	71	81	32	14	**234**
MCA Carry (36.67%)		15	87	99	39	17	**258**
Total Share Share	**23**	**28**	**157**	**180**	**72**	**31**	**492**
Total 100% JV	80	51	260	298	118	52	**860**
Percentage	**9%**	**6%**	**30%**	**35%**	**14%**	**6%**	**100%**

Section 2: Value proposition and financial context

SPDC declared an emergency action on TNPL due to the level of environmental degradation resulting from oil theft and vandalism on the existing TNP 24" and 28" pipelines and this was duly supported by NAPIMS and other JV partners.

Trans Niger Pipeline Loop line Project is also an integrity assurance project that will ensure SPDC continual LTO for the greater Port Harcourt fields. Routine maintenance has not been allowed in the past nineteen years due to socio-political crises on the sections of existing TNP that goes via Bomu axis (within Ogoni land), therefore a failure of this existing line will result in deferred oil volumes and loss of revenue over a three to four year re-construction period. The HSE and Social risks to avoid include environmental pollution, explosions/fire, fatalities and unending litigations.

This project will also secure liquids export from Gbaran-Ubie thereby ensuring gas export to NLNG in addition to other 3rd parties' production and evacuation of Okoloma liquids which in turn allows power generation (650MW) from Afam VI Power Station. Monetization of the greater Port Harcourt oil production and continued gas production from Gbaran and Okoloma is the value at risk which is to be gained from the TNP Loopline Project.

The value protection for oil evacuation and gas supply as per above translates into NPV7% of US$3,710.2 mln (Shell Share).

Summary Economics

The TNP Project was evaluated on a forward looking basis using the 50/50 LE cost estimates.

It is expected that the funding of NNPC share will be done via a 2008 Modified Carry Agreement (MCA) bundle including Awoba FOD and Nembe Phase2 which are revenue-generating projects currently in the maturation funnel. However, this is contingent on these projects taking Final Investment Decision (FID). Thus, the base case evaluation assumes no revenue available within the MCA, which will therefore only provide for tax relief of the carried Capex, but no compensation in terms of Carry Oil and Share Oil, and the consolidated value of the MCA bundle (TNPL, Soku Pipelines, Awoba FOD and Nembe Creek Phase 2) was only evaluated as sensitivity.

The following sensitivities were evaluated: High and Low CAPEX, 1 Year cost delay, Life cycle economics and 1.5% mark up due to BVA (Bench marked verified and approved) issues due to NNPC cost disputes.

The protected value of the NFA and new oil production from the facilities that feed into the TNP based on BP11 forecast was also evaluated. This is evaluated and presented as the value (excluding midstream) at risk in the grid. This is the worst case assumption that, the existing pipeline fails without an alternative evacuation route provided for current throughput.

Table 2: Trans Niger Pipeline (TNP) Economics Grid (Shell Share)

PV Reference Date: 1/7/2012	NPV (S/S $ mln)		VIR	RTEP	VTE	UTC (RT $/boe)		Payout-Time (RT)	Maximum Exposure (RT- AT)
Cash flow forward from: 1/1/2012	0%	7%	7%	%		0%	7%	(yyyy)	$mln (yyyy)
Base Case									
RV ($70/bbl RT12)*	-73.5	**-103.5**	**-0.25**	NA	NA	NA	NA		*57.0 (2013)*
Sensitivities (using RV-RT12)									
High CAPEX (P90)		**-124.5**	**-0.25**						*66.4 (2013)*
Low CAPEX (P10)		**-86.7**	**-0.25**						*49.4 (2013)*
1 Year Cost delay		**-100.3**	**-0.27**						*57.0 (2014)*
Life Cycle Economics		**-107.2**	**-0.24**						
1.5% cost markup due to BVA issues		**-113.5**	**-0.27**						
MCA bundle**		**102.9**	**0.11**						
Value at Risk***		**3,710.2**	**0.00**						

* Same result applies to SV-RT and HV-RT since there is no revenue stream.

**MCA bundle-consolidated value of TNP, Soku Pipelines, Awoba FOD and Nembe creek Phase 2 under MCA assuming the other projects take FID.

*** Value of production from facilities that feed into TNP based on BP11 forecast which is at risk if the existing pipelines fails without an alternative evacuation route provided.

Key Project Parameters Data Ranges (Shell Share)

Parameter	Unit	BP11 Provision	Low	Mid	High	Comments
Capex (MOD)	US$ mln	469.0	393.0	469.0	562.3	Based on LE cost estimates
Opex (MOD)_Project	US$ mln	24.0	20.0	24.0	27.0	Owners cost & SCD Opex
Production Volume	mln boe	NA	NA	NA	NA	Cost only evaluation
Start Up Date	mm/yy	Oct-15	Jun-15	Oct-15	Mar-16	
Production in first 12 months	mln boe		NA	NA	NA	

Section 3: Risks, opportunities and alternatives

The key risks identified in the project are as follows:

Threats

Linepipe production by SCC Linepipe manufacturing mill Abuja (T, P)

SCC mill located in Abuja, Nigeria manufactures Helical SAW pipes which are not commonly used in the industry for oil and gas transport. Nigerian Content Act requires all linepipes to be procured in-country, thus the plant is currently overloaded with demands from other IOCs putting pressure on their capacity to meet our tight schedule. The current issue of plant breakdown during production of high-wall thickness pipes and poor spare-parts management has revealed the vulnerability of the plant. ***Mitigation:*** Active engagement of NCDMB, NAPIMS and the Ministry of Petroleum yielded a waiver to procure 50% of Linepipe demand out-country. Agreements have been reached with the mill to deploy additional resources (running multiple shifts) to meet up with target. Robust review of SCC Manufacturing Procedure Specification and Inspection test Plan by SMEs with support from SGSi carried-out.

Security & Social Risks (P, E)

The project is located in the swamp of the Nigeria Delta; community interfaces, HSE and security issues are particularly significant in these areas, highlighted by cases of hostage taking, and armed attacks and sabotage of, especially, pipeline systems. There is also a risk of community agitations outside agreed GMOU terms that could lead to delay and cost growth. ***Mitigation:*** Proactive engagement of communities that transverse the pipeline Right of Way has been adopted. The Project team is however very mindful of activities of disgruntled renegades. All work will be done according to the approved security plan under the oversight of the Corporate Security team. Community interfaces will be managed through the Global Memorandum of Understanding (GMoU).

Delayed NNPC Award Approvals for EPC Contracts (C, E, P)

Three contracts are proposed to be awarded in July 2012 (one for each package), but approval of award recommendation by NNPC Board can take up to 6 to 12 months period. There are strong indications that political interest in the TNPL project may cause further delay by NAPIMS to process the proposal to NNPC Board for approval ***Mitigation**:* SPDC is actively engaging NAPIMS to ensure alignment of views such that award is based on commercial and technical considerations in the overall interest of the JV. Upon agreement of MCA with JV partners, it is intended to progress with interim award of contract ahead of NNPC Board approval, provided Total and ENI commit to honouring their bills.

Crude Theft and Vandalism (P, T))

Incessant vandalism and bunkering of pipelines in the Niger Delta remains a challenge. The recently commissioned NCTL pipeline has been heavily impacted by bunkerers within just two years of commissioning. Vandalism of TNPL pipeline would threaten the security of Land East production and continuous operation of supported gas plant like Gbaran, Afam and ASSA. ***Mitigation**: T*he pipelines will be buried to 4.5m depth (against conventional 1.2m depth) and partially covered 1m above the pipes in all swamp terrains, with 3m water column above for boats patrol & surveillance and installation of protective reinforced concrete slabs on land. Other protective measures include installation of intruder detection and leak detection system along the entire pipeline length and installation of Security Outpost along RoW for prompt response to intrusion alarm.

Inexperienced Contractor winning the bid (T, C)

During the technical bid evaluation, gaps where identified in the execution plans of some of the bidders. Although one bidder did not meet the minimum score for technical evaluation, NAPIMS had a contrary view. ***Mitigation**:* The project team organised two security workshops to clarify the requirements for managing security in the project and clearly delineate the responsibilities of all parties. Closure plans for the gaps identified from technical bid evaluation were presented by the bidders in an Unpriced Commercial Submission. The project team has developed a strategy to provide additional resources for Project Management support during execution for Contractor with residual gaps after the unpriced bid. Cost for this back-up measure is included in project contingency.

Funding (C, E)

The base proposal is to fund the project by Alternative Funding (AF). The cost estimates are now agreed with JV partners following opening of the commercial bids for the EpC Contract. However, formal approval by NNPC AF committee is yet to be received. ***Mitigation**:* SPDC will continue to engage NAPIMS for speedy approval now that costs are agreed.

Ogoni Issue (P)

Although the TNPL pipeline does not traverse the Ogoni communities, there are misconceptions that the Ogale community is under the Ogoni principalities. This has been severally refuted by the entire Eleme Kingdom (to which Ogale belongs) and Government representatives. It is clear though that any perceived E&P activities in Ogoni by SPDC will result in a negative media backlash for SPDC. ***Mitigation**:* Engagements with Rivers State Government and community leadership have confirmed that the project route does not traverse Ogoni land. However the project team is closely monitoring activities of all organized groups that may impact the project. Active sensitization and visits to community leaders in the areas along with the support of the State Government is being maintained.

Cost Recovery (E)

There is the risk that the revenue generating projects (Nembe Creek Phase 2 and Awoba FOD are either not sanctioned or not sanctioned early enough, more so as the maturity of TNPL is ahead of the cost recovery projects. ***Mitigation***: Awoba FOD and Nembe Creek Phase2 have been reviewed by the NAPIMS MCA Committee and just awaiting final cost numbers from the NAPIMS JV Operations team. Awoba FOD is ready for FID and Nembe Creek Ph2 will take FID latest by Feb'13. As a result, both projects are mature enough to support TNPL and the Soku pipelines projects with minimal risk of recovering the funds used for these projects. However, if for any reason these oil projects do not come on-stream as planned, they will be drilled later and provide the requisite production.

Opportunities

Improve Competition & NCD Compliance By Using New Local Contractors (C, P)

Very few major pipeline contractors remained in the Niger Delta. This is partly due to the insecurity situation. This has resulted in very uncompetitive commercial scenarios when tendering major pipeline projects. As a result of new local contractors participating in the TNPL bid, there is an opportunity to develop new competent local contractors should they win any of the packages. ***Enhancement:*** Encourage local content participation by not making prior experience with SPDC an over-weighted advantage. New Contractors shall be regularly educated through safety, technical and contractual workshops. An Execution Support Strategy has been developed which encourages working with Contractors under an "Integrated Team Structure" to ensure project delivery.

Empowerment of Host Communities (P)

Awarding sub-contracts to local contractors from host communities has the potential to engender improved relationship with host Communities leading to FTO and reduced community delays. Also the this proposal has made provision for Sustainable Community Development projects that will also help in uplifting the standard of living of the impacted communities. ***Enhancement:*** Employment opportunities will be created for the youths through community based surveillance contracts and direct engagement by the contractor. Human Capacity Development programmes will also be implemented as part of Social Investment in the communities. Agreed terms of the GMOU or P-GMOU will be implemented.

Pipeline Sustainability Strategy (T)

The NCTL pipeline has suffered several vandalism and bunkering in less than two years of commissioning. Sustainability initiatives include hardening and protecting the TNPL using deeper burial depth and installation of reinforced concrete slabs atop the line. Natural barrier is provided as the pipeline profile will be permanently under canal water (at low-low water level) in the swamp. TNPL also will have built-in intruder detection and leak detection capabilities to guard against vandalism and provide timely information. These features will enhance pipeline availability and system integrity throughout its lifespan. These measures are value-adding improvements over the NCTL.

Crossing of Major River with HDD Technology (T)

Traditional methods of crossing rivers have serious impact on marine traffic, economic activities (fishing is a major stay of the locals), and increases turbidity of the waters (which is drunk by the communities). ***Enhancement:*** SPDC is continuing to support all initiatives towards stretching the frontiers of HDD particularly for the 3.6km lower Bonny River crossing. Provision has been made in the contract for third party certification of the design and installation of the lower and upper Bonny River crossing by Lloyds, DNV or Bureau Veritas which would also provide an opportunity for knowledge transfer particularly for the local contractors.

Alternatives

1. Continue to produce through the existing TNP: *Rejected:* The existing line is already beyond its design life and has been severally impacted by vandals and oil thieves.

2. Replace the TNP along same Right of Way: _Rejected:_ This is not recommended as the new line will be faced with same exposure to oil thieves. It will also not support SPDC's plan to remediate the existing TNP RoW following UNEP report of Ogoni spill.
3. Lay the TNP Loopline through Bonny River to reduce exposure to vandals and oil thieves: _Rejected_: Requires additional pipelines from Alakiri and Cawthorne Channel through the swamps, greatly diminishing the net positive effect of a river route on environmental footprint and sabotage/illegal bunkering. The possibility for future tie-ins as well as operational flexibility will be lost. SCAN report shows that there are no further benefits in the river lay route.

Section 4: Carbon management
The project does not directly support carbon management. No equipment installed in the project is expected to contribute to CO2 emission. However, as a key enabler for the Gbaran Ubie and Okoloma Gas plants which currently recover associated gas that would otherwise have to be flared.

Section 5: Corporate structure, and governance
This project fits within the existing SPDC corporate structure and governance. Consequently, it will comply and respect all relevant and existing governance.

Section 6: Functional Support and consistency with Group and Business Standards
This proposal complies with Group Business Principles, Policies and Standards. Functional support for this proposal is provided by Finance, Sustainable Development, Supply Chain Management, HSE, Operations, Legal, Treasury and Tax functions.

Section 7: Project management, monitoring and review
This is a "P&T executed" project delivered by the UIG/T/PP Major Projects team. The ORP compliant governance structure is in place, including a project specific DRB, DE and BOM. A Project Control and Assurance Plan (PCAP) has been approved to define the applicable controls for the EXECUTE phase. The Fact Sheet supporting the project's latest cost and schedule view has been reviewed and endorsed by PTE/S.

Section 8: Budget provision
It is proposed that at FID, the project budget requirement will be from the alternative funding tranche. In line with current AF agreements, it is expected that project FID OPEX and Project Management cost will continue to be funded via regular JV budgetary process.

Section 9: Group financial reporting impact
The financial impact of this proposal on Shell Group financial is as outlined in the table below-

US$ mln	Prior Years	2012	2013	2014	2015	2016	Post 2016
Total Commitment	+1	+31	+165	+188	+74	+32	+0
SCD OPEX	+0	+1	+2	+2	+1	+0	+0
Pre-FID	+1	+0	+0	+0	+0	+0	+0
Cash Flow							
Capital expenditure	+0	+30	+163	+186	+74	+32	+0
Cash Flow from Operations	-0	+5	+33	+66	+80	+83	+161
Cash Surplus/(Deficit)*	-0	-25	-130	-120	+6	+51	+161
Profit and Loss							
NIBIAT +/-	-0	+1	+7	+10	+6	+4	-82
Balance Sheet							
Average Capital Employed	+0	+13	+95	+229	+294	+270	+49

Section 10: Disclosure

Material disclosure, if any, will be done in line with the Group and SPDC Disclosure policies and guidelines.

Section 11: Financing

The Pre-FID portion of this investment has been financed with JV funding. It is expected that financing for the main project scopes shall be through the MCA funding mechanism. Formal sign-off is being finalized with JV partners. However, it is planned to make commitments upon NAPIMS approval of MCA figures.

Section 12: Taxation

There are no unusual Taxation features.

Section 13: Key Parameters

Approval for the total headline size of $492mln Shell Share ($780mln 100%JV) 50/50 MOD for the execution of Trans Niger Pipeline Loopline Project. This value is made up of $234mln Shell equity and $258mln MCA carry commitment.

Section 14: Signatures

This Proposal is for approval.

Supported by:	**For Business Support:**
....	....
Bichsel, Matthias F RDS-ECMBI	*Brown, Andrew RDS-ECAB*
Date ..../..../....	Date ..../..../....

Supported by:	**For Business Approval:**
. ...	. ...
(*Henry, Simon P RDS-ECSH)*	(*Voser, Peter RDS-CEPV*)
Date ..../..../....	Date ..../..../....

APPENDIX 1

List of Projects in BP11 that feed into the TNP (Potentially at Risk if TNP fails completely)

1 Afam F5
2 Afam Gas Supply_1 & 2.
3 AG Solution Adibawa
4 AG Solution Bonny
5 AG Solution Opportunities (OV)
6 Agbada Appraisal
7 Agbada FOD Module 1, 2 & 3
8 Agbada H Block
9 AGS Egbema West
10 AGS Isimiri
11 AGS Kolocrk & Etelebou
12 AGS Oguta
13 Akri-Oguta IOGD
14 Assa North Appraisal
15 Assa North Node Domgas
16 BNAG Filler Project
17 Bonny FOD
18 Bonny NAG Minor Reservoirs Dev
19 EDG (Ngboko)
20 EDG Buguma Creek Phase 1
21 EDG Buguma Creek Phase 2A
22 Egbedi Creek IOGD
23 Egbema Node IOGD
24 Egbema West DumpFlood
25 Egbema West NAG
26 Gbaran Ubie Phase 1_AF
27 Gbaran Ubie Phase 1_IPP
28 Gbaran Ubie Phase 2A (Epu)
29 Gbaran Ubie Phase 2A (Gbaran C4)
30 Gbaran Ubie Phase 2A (Koroama)
31 Gbaran Ubie Phase 2C (Ubie)
32 Gbaran Ubie Phase 3A - Green Fields-ABAS
33 Gbaran Ubie Phase 3A - Green Fields-ENWH
34 Gbaran Ubie Phase 3A - Green Fields-UZU
35 Gbaran Ubie Phase 4+
36 Gbaran Ubie Phase 5
37 Imo River FOD (Mod 1, 2,3, & 4)
38 NFA - Land East
39 NFA - NOV
40 NFA - Swamp East
41 Nun River IOGD Phase 1, 2 & 3
42 Obigbo North IOGD Phase 1, 2, 3 & 4.
43 Ohuru IOGD
44 Okoloma Gas Plant
45 Otamini IOGD Phase 1

46 Southern Swamp IOGD
47 STOG Restoration - Land East
48 STOG Restoration - Swamp East
49 Thematic Projects (Ubie, Isu, Minita, Ohuru etc)
50 Umuechem IOGD Phase 1 & 2.
51 Well Integrity WO
52 Well Recompletion WO

APPENDIX 2

Economics Assumptions

- Oil and Condensate prices SV-RT $50/bbl, RV-RT at $70/bbl and HV-RT $90/bbl with applicable offset.
- Domestic Gas NGMP profile and NLNG contracted price RT12.
- Gas taxed under CITA with Associated Gas Framework Agreement (AGFA) incentive.
- Condensate treated as oil and taxed under PPT (PPT tax rate of 85%).
- SCD Cost was provided by project team.
- ARPR 31/12/2011 variable OPEX for Awoba FOD and Nembe Phase 2 was used.
- SPDC Generic Opex was used for new facilities and Value at risk.
    - Oil fixed OPEX - 3% of cum. oil CAPEX,
    - Gas fixed OPEX – 3.5% of cum. gas CAPEX
- Education Tax of 2% assessable profit
- NDDC levy of 3% total expenditure
- GHV of 1000btu/scf for Dom and 1150btu/scf for Export gas
- Flare Penalty of $3.5/Mscf was applied and is not tax deductible
- 10% of RT CAPEX assumed as abandonment cost.
- Facility life span of 30 Years.

MCA Assumptions

- Profit ceiling of 8% IRR on carried costs
- Current agreement for recovery of carry costs is maintained
- OPEX and PMT not carried under current MCA arrangement.
- All costs on the MCA would be recovered through cost oil.