

## Group Investment Proposal

## Summary information

Business unit and company	Shell Petroleum Development Company of Nigeria Limited (SPDC)																																																							
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	Nigerian National Petroleum Corporation (NNPC: 55%), Total E&P Nigeria Ltd (10%), and Nigerian Agip Oil Company (NAOC: 5%)																																																							
Business	Upstream International (UI)																																																							
Amount	US\$607mln Shell share, MOD, 50/50 is requested for approval of the 100% JV estimate of US\$947mln. The proposal includes Shell equity share (30%) of US\$284mln and Shell’s MCA commitment to NNPC of US\$323mln of which US\$80mln 100% JV has been approved in a Pre-FID investment proposal.																																																							
Project	Trans Niger Pipeline Loopline (TNPL) Project																																																							
Main commitments	<table><tr><td></td><td colspan="3">100% JV</td><td colspan="3">Shell Share</td></tr><tr><td>Description</td><td>Pre-FID Proposal</td><td>Incremental IP (\$mln)</td><td>Complete Budget (\$mln)</td><td>Incremental IP and Pre-FID</td><td>NNPC MCA Carry (\$mln)</td><td>Complete Budget (\$mln)</td></tr><tr><td>Pipelines CAPEX</td><td>73</td><td>796</td><td>869</td><td>261</td><td>323</td><td>584</td></tr><tr><td>PMT Cost</td><td>7</td><td>53</td><td>60</td><td>18</td><td>-</td><td>18</td></tr><tr><td>Total CAPEX</td><td>80</td><td>849</td><td>929</td><td>279</td><td>323</td><td>602</td></tr><tr><td>SCD OPEX</td><td>-</td><td>17</td><td>17</td><td>5.19</td><td>-</td><td>5</td></tr><tr><td>Total 50/50 MOD (Excluding capitalized interest)</td><td>80</td><td>867</td><td>947</td><td>284</td><td>323</td><td>607</td></tr></table>								100% JV			Shell Share			Description	Pre-FID Proposal	Incremental IP (\$mln)	Complete Budget (\$mln)	Incremental IP and Pre-FID	NNPC MCA Carry (\$mln)	Complete Budget (\$mln)	Pipelines CAPEX	73	796	869	261	323	584	PMT Cost	7	53	60	18	-	18	Total CAPEX	80	849	929	279	323	602	SCD OPEX	-	17	17	5.19	-	5	Total 50/50 MOD (Excluding capitalized interest)	80	867	947	284	323	607
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Capitalized interest on SS and MCA Carry of \$58.6mln is excluded from the headline size.																																																								
Source and form of financing	This investment is part of the Trans Niger Pipeline Loopline (TNPL) MCA 2 Projects bundle and Shell share of capital expenditure will be met by SPDC’s own cash flow.																																																							
Summary cash flow	Cost only Project. Cash Flow chart not applicable.																																																							
Summary economics	Summary economics (RV-RT12)		NPV7 (USD mln)		RTEP (%)		VIR7																																																	
	Base		-131.6		NA		-0.27																																																	
	High CAPEX		-159.1		NA		-0.27																																																	
	Value at Risk		3,683.3		>50%		NA																																																	

**Section 1: The proposal (management summary)**

The Group Investment Proposal seeks approval for funding of \$284mln Shell equity share (\$947mln, MOD, 50/50 100% JV) plus additional MCA commitment of \$323mln bringing total Shell Share to \$607mln. A Pre-FID IP had been previously approved for US\$80mln 100% JV of which \$73mln 100% JV is capitalised for MCA funding. This proposal therefore seeks additional funding of Shell Share \$583mln for the execution of Trans Niger Pipeline Loopline (TNPL) Project.

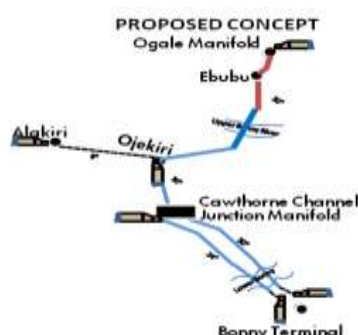
**RDS Board support for this project was secured in December 2012 as part of the TNPL MCA (Modified Carry Agreement) Project Bundle. Tables 1 and 2 of Appendix 4 show that this GIP is aligned with the RDS Board approved GIP. In this TNPL MCA GIP it was stated that individual investment proposals for the projects part of the Bundle would be processed, approved at the right authority level, for a Final Investment Decision (FID). With the Modified Carry Agreement now signed 16 May 2013 between NNPC, NAOC, TOTAL and SPDC agreeing the financing mechanism, this FID support is now requested.**

The TNPL project will support SPDC continuous freedom and license to operate whilst enabling the evacuation of 180kb/d of SPDC JV and other Operators (including circa 127kbl per day of SPDC Land East production) and 267kboe per day of gas from Gbaran, Agbada (under construction), Okoloma and Alakiri gas plants including third party production to Bonny terminal. This new line passes through an alternative route from the existing Trans Niger Pipeline (TNP) thus providing opportunity for the remediation of existing TNP right of way which has been devastated by activities of crude oil illegal bunkerers, thieves and saboteurs. The evacuation of condensate from Gbaran Ubie and the other gas plants ensures gas supply to NLNG and support Afam Power plant (650MW) that remains a major agenda of the Federal Government.

The need to loop the TNP 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) were held from 30th of May to 3rd of June 2011.

### 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 Ogale 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-Ojekiri 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.

### On-stream target

The expected RFSU date is September 2016 (P50), contingent on NNPC Board approval and award of Package 2 & 3 Contracts in June 2013 (refer to Risks Section 3). The assumption that the cost would not change is premised on the fact that the EPC Contracts have been negotiated and the bids for Packages 2 and 3 would remain valid till July and October 2013 respectively. It can be assumed that if the Packages 2 and 3 are not awarded within the bid validity period, the contract value may increase by the year-on-year inflation rate. The actual impact on cost and schedule would be determined when NNPC Board approves Packages 2 and 3.

### Funding

As outlined and approved by the RDS Board in December 2012, this project will be financed with a Modified Carry Agreement, with the private partners (Shell, NAOC and Total) carrying pro-rata the capital expenditure of NNPC. The carry will be reimbursed through a combination of tax relief and part of NNPC's production entitlement from a number of oil infill drilling projects (Awoba FOD, Nembe Creek Phase 2 and Nembe Sidetrack projects). The Investment Proposals for these oil infill projects are being progressed and expected to be ready for Shell internal approvals in August 2013. It should be noted that under the MCA these oil infill projects have already been approved by the partners for the MCA recovery, in line with the in December 2012 RDS Board approved GIP. Hence the MCA cover is in place for this TNP loop line project as originally envisioned in this Board proposal.

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, including updated estimates established in Nov '12 to attend to the emerging HDD risk.

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

	Cost Phasing (FUS\$mln)						
	2010-2012	2013	2014	2015	2016	2017	Total
	Pre-FID	Incremental					
CAPEX	73	152	252	211	138	43	869
PMT	7	9	17	15	10	3	60
Total CAPEX	80	161	269	226	148	46	929
CAPEX Shell Share Equity	24	48	81	68	44	14	279
SCD - Opex	0	4	5	4	3	1	17
OPEX Shell Share Equity	0	1	2	1	1	0	5
MCA Carry	27	56	93	78	53	17	323
Total Share Share	51	105	175	147	98	30	607
Total 100% JV	80	165	274	230	151	47	947
Percentage	8%	17%	29%	24%	16%	5%	100%

\* Budget for 2017 is to cater for payment of retention fees, demobilisation milestone and PMT for contracts and project closure

**Section 2: Value proposition and financial context**

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

Aside the potential HSE and social risks, a failure of the existing line will result in deferred oil volumes, condensate and gas production. The value at risk from greater Port Harcourt oil production and gas production from Gbaran and Okoloma translates into NPV7% of US\$3.7 bln (Shell Share).

**Summary Economics**

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

The funding of NNPC share will be done via a Modified Carry Agreement (MCA); consequently the economics evaluation has been based on this. The TNPL project is in the same MCA bundle with Awoba FOD, Nembe Phase2 and Nembe Sidetrack which are the revenue-generating projects for which Final Investment Decision (FID) is expected in August 2013, as indicated above. The base case evaluation assumes however 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, Nembe Creek Phase2, Awoba FOD and Nembe Sidetrack) was evaluated as sensitivity. It should be noted that as the MCA has now been signed with the partners agreeing to the entire TNP MCA project bundle, this sensitivity could also be considered the base case. For the full TNPL MCA Project Bundle, the VIR is 0.14 (at \$70 RV) as indicated in the GIP for the TNPL MCA Bundle approved by the RDS Board in December 2012.

The following sensitivities were evaluated: Project funded under JV, high and low CAPEX, 1 year project delay, life cycle economics and 1.5% mark up due to BVA (Bench marked verified and approved) issues due to NNPC cost disputes.

The PIB sensitivity was also evaluated. It shows a reduction in value due to decrease in tax credit from expenditure due to decrease in oil tax rate. Also, PIB provisions will not affect or impact the cost recovery of the MCA tranche.

The protected value of the NFA from the facilities that feed into the TNPL based on BP12 forecast was also evaluated. This is evaluated and presented as the value (excluding midstream) at risk in the grid. This is the worst case scenario that, the existing pipeline fails without an alternative evacuation route provided for current throughput.

**Table 2: Trans Niger Pipeline Loopline (TNPL) Economics Grid (Shell Share)**

Assumed Full FID &amp; MCA Funding Before End March 2013

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)
<b>Base Case</b>									
RV (\$70/bbl RT12)*	-114.9	-131.6	-0.27	NA	NA	NA	NA		275.9 (2015)
<b>Sensitivities (using RV-RT12)</b>									
Project funded under JV		-67.8	-0.30						
High CAPEX (P90)		-159.1	-0.27						
Low CAPEX (P10)		-110.3	-0.27						
1 Year project delay		-120.5	-0.27						
1.5% cost markup due to BVA issues		-146.6	-0.27						
MCA bundle**		120.1	0.14						
PIB		-330.5	-0.45						
Value at Risk***		3,683.3	NA						

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

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

\*\*\* Value of production from facilities that feed into TNP based on BP12 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	BP12 Provision	Low	Mid	High	Comments
Capex (MOD)	US\$ mln	598	478	598	699	Based on I.E cost estimates
Opex (MOD) Project	US\$ mln	5	4	5	6	SCD Opex
Production Volume	mln boe	NA	NA	NA	NA	Cost only evaluation
Start Up Date	mm/yy	Jun-16	Jan-16	Jun-16	Aug-16	
Production in first 12 months	mln boe		NA	NA	NA	

*\* Note: Economics were performed in anticipation of an MCA agreement and FID in Q1 2013 and have not been updated. . The GIP P50 RFSU is September 2016 and P90 RFSU is July 2017 taking into account a worst case of losing one construction season due to an abandonment of HDD and reverting to conventional pipelay across the Bonny River.*

**Section 3: Risks, opportunities and alternatives**

The key risks identified in the project are as follows:

**Risks****Crude Theft and Illegal Bunkering**

The crude theft and sabotage in the Eastern Delta has worsened significantly, having led to prolonged shut-ins of the NCTL and also the existing TNP is very much at risk. This is expected to remain a challenge in the foreseeable future. To make the TNP Loopline more robust against sabotage and bunkering, the pipelines will be buried to 4.5m depth (against conventional 1.2m depth) and partially covered 1m above the pipes in all swamp terrains. 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

**Road/Marine Transport Incidents**

The project involves considerable movement of personnel and materials (linepipes, equipment, etc). The linepipes from SCC Abuja have been moved via road to the coating plants incident free. However, they will be moved to site mainly by marine transport. Inexperienced boat/barge operators and third party marine users can expose the project to marine transport incidents. **Mitigation:** Logistics Infrastructure and Risk Assessment was conducted for land and marine routes and a comprehensive Logistics Execution Plan developed for the project. The road exposure is now reduced having completed all pipe movement from Abuja to Warri. A dedicated project Logistics coordinator has been resourced and project Logistics activity plan, covering all the logistics workshops, campaigns, audits and reviews to achieve GOAL Zero has been developed and signed off. There is extensive local experience for marine transportation using similar strategy as in NCTL where incidents were managed to ALARP will be deployed.

**Water Pollution and Turbidity**

TNPL project shall cross 19 creeks/rivers along its Right of Way including heavy marine movements of barges and boats. **Mitigation:** The project has actively pursued the use of Horizontal Directional Drilling (HDD) in lieu of traditional dredging methods for the two larger river crossings to mitigate the impact. This would significantly reduce the environmental impact of the pipeline laying activities on the fauna and flora. Effluent discharge from houseboats shall be strictly monitored in accordance with the Project EMP. In general, during detail design, the Contractor will be required to demonstrate how water pollution risks would be managed through a Construction HSE Case.

**Security Risks (P, E)**

The project is located in the swamp of the Nigeria Delta and security issues are particularly significant in these areas, highlighted by cases of hostage taking, and armed attacks and sabotage of, especially, pipeline systems. **Mitigation:** A Security Plan will be agreed and signed off by Corporate Security prior to commencement of site activities. All work will be done according to the approved security plan under the oversight of the Corporate Security team.

## Social Performance/Community Issues

There is a risk of community agitations outside agreed GMOU terms that could lead to delay and cost growth. Mitigation: Global Memorandum of Understanding (GMOU) is the corporate platform for managing community interface as well as delivering benefits to communities. All communities within the pipeline route shall be covered by either a GMOU or PGMOU (Project GMOU). GMOU is in place for TNPL Package 2 (Okirika Cluster). GMOU for Package 1 (Eleme Cluster) is being negotiated and would be completed in August. Project GMOU is planned for Package 3 (Bonny Cluster), negotiation is premised on FID and would be in place by September if GIP is signed June 2013. SCD costs have been properly captured in the cost estimates in the GIP and contractors being proposed for the project execution will be required to submit an approved Community Affairs Plan that will guide their interface with the impacted communities in project area. In addition, adequate resources, including the active support of the host-Asset Community Relations Team and Community Relations service contract, will be provided by the project for pro-active management of community issues throughout the project duration.

### Delayed NNPC Award Approvals for EPC Contracts

NNPC Group Executive Committee (GEC) has approved the award of all three contracts required for TNPL. However NNPC Board has only ratified the award of Package 1 which it received before the Board sat this year. Bids validity of Packages 2 and 3 are July and October 2013 respectively, this poses cost escalation risk. A Cost and Schedule Risk Analysis (CSRA) will be carried out on the project when NNPC Board approves Packages 2 and 3 to ascertain the new OSD. **Mitigation:** High level engagement of NNPC will continue to ensure that these Contracts are awarded at the next Board meeting.

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### Lower Bonny River Crossing with HDD

Contrary to SPDC's award recommendation, NAPIMS' has insisted on award of the most technically challenging Package to a Contractor with least technical experience whose proposals to use Horizontal Directional Drilling (HDD) methodology, which is untested for the circa 4km Lower Bonny River crossing (3.6km river width and 400m approach) and remains a concern. **Mitigation:** SPDC is liaising with P&T Pipelines SME to provide technical support to the HDD element of the project and will engage a specialist HDD consultant to strengthen the SPDC supervision team. JV intervention would also be made at two trigger points as surmised below:

- i. Trigger point One – Failure to obtain a certified HDD design from a third party Certification Agency (Lloyds, DNV or Bureau Veritas), JV will decide to move on to a conventional pipe-lay method. The estimated impact on schedule is 6months delay while the cost may increase by about F\$20mln based on the quote received from other bidders for conventional crossing.
- ii. Trigger Point Two – Where the Contractor is unable to execute the HDD crossing successfully, JV will decide to revert to a conventional pipe-lay method. The impact on cost and schedule is \$87m and 12/18months.

The schedule and cost impact of switching to conventional river crossing methodology have been built into the project contingencies. Should the risk not materialize, the potential upside is that the F\$73mln (F\$87mln less F\$14mln already being spent on additional linepipes) would not be spent.

The impact mitigation measures include:

- a. An experienced HDD Contractor (Drilltec, Germany) has been engaged through SGSi to provide technical support for the HDD crossing. A strategy has been agreed and signed-off with SGSi covering the scope of the support required and intervention points. In addition, a working alliance between Package 3 Contractor and a more experienced and internationally renowned contractor is being developed in the event of reverting to conventional crossing but not yet consummated.
- b. F\$14mln has been provided for additional linepipes as a proactive measure to reduce delay on the project should the HDD fail. Allowance for extra materials, time, etc have been included in the P50 project contingency except for a worst case schedule outcome of abandonment of the HDD during installation and reversion to a conventional pipe-lay which is reflected in the P90 schedule.
- c. EIA, Community engagements etc are in place which would allow for a conventional pipeline crossing of the Lower Bonny River

## Ogoni Issue

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 repeatedly 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. All the impacted communities have refuted any form of association with Ogoni principalities. Despite all these mitigation measures, should this threat happen, then it would be considered a security case and will be handled accordingly.

## Cost Recovery

Within same MCA bundle with TNPL, Nembe Creek Phase 2, Nembe Sidetrack and Awoba FOD are the revenue generators. Should these projects not come on stream as planned, it will lower the expected MCA return of 8% to 7.4% for 1 year delay and 6.6% for 2 year delay. **Mitigation:** Awoba FOD, Nembe Sidetrack and Nembe Creek Phase2 have received approval from the NAPIMS Board on final cost numbers for AF funding. These projects are mature enough to support TNPL pipelines with minimal risk of recovering the funds used for these projects. However, these portfolios of projects are being managed within same directorate and therefore receiving similar attention.

## Land Acquisition

Acquisition of land required for TNPL right of way is yet to be completed. Ideally lands work should be completed prior to FID as owners leverage increases considerably afterwards. The Lands Compensation Board has already approved rates for compensation of the land owners and discussions with the Land owners have commenced already. Approval from the Nigerian Ports Authority is also outstanding. This GIP assumes no re-routing. Any impact that may arise from an unforeseen change will represent a scope change, with commensurate cost and schedule impact. **Mitigation:** Proactive engagement of Local Government Chairmen and Council-of-Chiefs to ensure rightful land owners are identified. Once discussions are held with land owners, a Right of Access shall be secured while mechanism for payment is effected.

## Environmental Impact Assessment

Formal approval of the project EIA yet to be received Federal Ministry of Environment (FMEnv) and Department of Petroleum Resources (DPR). The panel review of the EIA report was held in November and the project team is awaiting the review report. By practice, this comes with a provisional approval with an instruction to implement the panel's comments in the EIA report. It is important to note that the EIA report would not impact on the early project activities including Detailed Design and Field Survey. **Mitigation:** Continuous engagement of FMEnv and DPR to ensure early approval of the EIA report.

## Opportunities

### Improve Competition & NCD Compliance By Using New Local Contractors

TNPL has provided opportunity for a number of new entrants (local EPC contractors) to SPDC pool of contractors, albeit may require additional level of intervention. Strategy and cost provisions for these additional requirements have been made.

### Crossing of Major River with HDD Technology

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 the use of HDD for all the river crossings on the project apart from the 3.6km lower Bonny River crossing which is considered rather challenging as it would be testing the limit of current HDD technology. 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.

## Top Quartile Project Delivery Opportunities (T)

A benchmarking exercise was carried-out by IPA in July 2011. The project was assessed at 6.5 FEL against industry benchmark of 5.25. A TQ plan has been developed for the project and endorsed by the SMEs. The current FEL for the project is 4.9 against a project target of 4.5.

The PMT recognises that meeting TQ target on cost and schedule will be a challenge particularly with the challenges of managing new Contractors with no prior experience with Shell. However, PMT will follow through on the TQ Plan to meet the projected FEL.

### Alternatives

1. Continue to produce through the existing TNP: **Rejected:** The existing line has been impacted by crude thieves and saboteurs and this situation is not expected to change in the foreseeable future. .
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, also in line with the UNEP report recommendations.
3. Lay the TNP Loopline through Bonny River to reduce exposure to saboteurs 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

No equipment installed in the project is expected to contribute to CO2 emission. However, it is 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, Controllers and Tax functions. Cost / Schedule Fact sheets have been duly signed off and available in the file.

### Section 7: Project management, monitoring and review

Project Assurance is in place for all work scope, prioritisation criteria and management of change. The Opportunity Assurance Plan has been established and signed off by the Decision Executive, with active roles for Partners, UI Nigeria, P&T. The project will be "P&T executed" 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. A TQ (top quartile) plan has been established and is being tracked on a monthly basis. Given that new and emerging contractors to SPDC operations will be involved, managing interfaces and non-technical risks closely has been identified with adequate mitigation plans in place to set up this project for success. Integrity Due Diligence (IDD) has been completed, all the bidders have met the company requirements and no red flag was identified by the IDD team.

### Section 8: Budget provision

Private partners' equity share of capital expenditure and NNPC carry portion will be budgeted for under the modified carry arrangement (MCA) while Project Management costs and other FID Opex will be funded via the normal JV budgetary process. Formal JV partners' approval of project for funding under the proposed MCA has been received.

**Section 9: Group financial reporting impact**

MCAs are accounted for in the same way as ordinary course investments in JV projects i.e. recording resulting Capex, depreciation, gross revenues, royalties and taxes and associated production and reserves in line with Group Policy. The financial impacts of the MCAs are calculated in line with the base case MCA specific assumptions and are indicated in the table below.

US\$ mln	Pre 2013	2013	2014	2015	2016	Post 2016
<b>Total Commitment</b>	51	105	175	146	96	30
SCD OPEX	0	1	2	1	1	0
Pre-FID	24	0	0	0	0	0
<b>Cash Flow</b>						
Capital expenditure	27	104	173	145	95	29
Cash Flow from Operations	-2	26	54	79	94	253
Cash Surplus/(Deficit)*	-29	-77	-119	-67	-1	224
<b>Profit and Loss</b>						
NIBIAT +/-	-2	5	9	9	7	-94
<b>Balance Sheet</b>						
Average Capital Employed	13	68	174	276	318	69

**Section 10: Disclosure**

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

**Section 11: Financing**

Capex financing for the main project scope shall be through the MCA funding mechanism. A Group Investment Proposal has been raised for the NNPC Carry portion of MCA funding requirement. Shell share of capital expenditure will be met with own cash flow.

**Section 12: Taxation**

There are no unusual Taxation features.

**Section 13: Key Parameters**

Approval for the total headline size of \$607mln Shell Share (\$947mln 100%JV) 50/50 MOD for the execution of Trans Niger Pipeline Loopline Project. This value is made up of \$284mln Shell equity and \$323mln MCA carry commitment.



**Section 14: Signatures**

This Proposal is submitted for approval.

**Supported by:**

A handwritten signature in blue ink, appearing to read 'S. Henry'.

Simon Henry  
ECSH Chief Financial Officer  
Date 10/06/2013

**Sponsor:**

A handwritten signature in black ink, appearing to read 'A. Brown'.

Andrew Brown  
Upstream International Director  
Date 07/06/2013

**For Shareholder Approval:**

A handwritten signature in black ink, appearing to read 'P. Voser'.

Peter Voser  
CEPV Chief Executive Officer  
Date 13/06/2013

**Sponsor:**

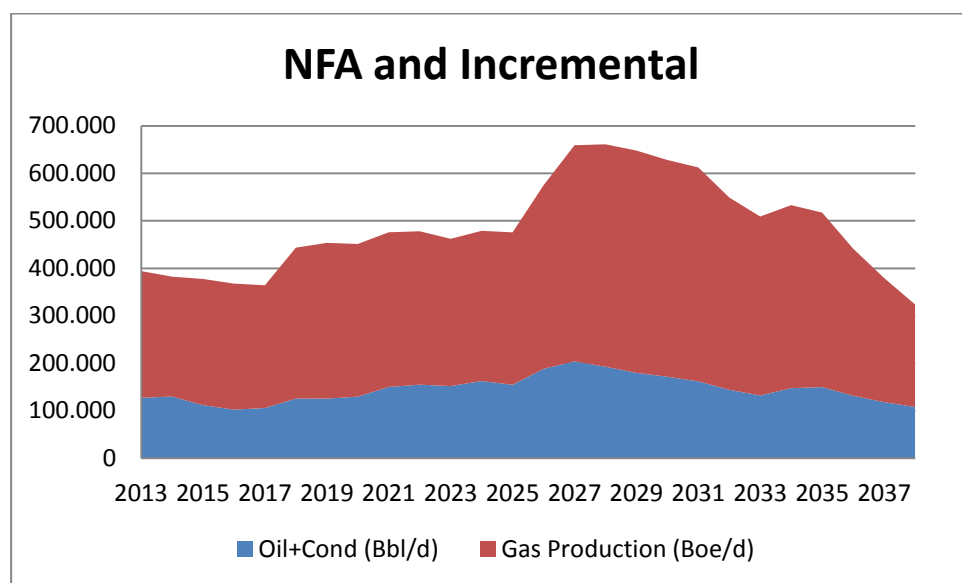
A handwritten signature in black ink, appearing to read 'M. Bichsel'.

Matthias Bichsel  
Projects & Technology Director  
Date 01/06/2013

**Initiator:** Toyin Olagunju, SPDC GM Major Projects

**APPENDIX 1****List of Flowstations in BP12 that feed into the TNPL (Potentially at Risk if TNP fails completely)**

Flowstation	
1	ADIBAWA1_FS
2	AGBADA 1&2_FS
3	AHIA1_FS
4	ALAKIRI_FS, GP
5	DIEBU_CREEK1_FS
6	EGBEMA_FS, WEST1_FS, GP
7	IMO_RIVER_FS (1,2&3)
8	ISIMIRI1_FS
9	KOLO_CREEK1_FS
10	NKALI1_FS
11	NUN_RIVER_CPF, FS
12	OBELE1_FS
13	OBIGBO _NORTH_FS, GP
14	OGUTA1_FS
15	OKOLOMA_FS, GP
16	ASSA_NORTH_DG, FS, GP
17	GBARAN_DG, FS, GP
18	RUMUEKPE1_FS
19	UBIE1_FS
20	UMUECHEM1_FS
21	PLANNED_OHUR1_FS

**APPENDIX 2 - Production Profile**

**APPENDIX 3 – Basis for Economics****Economics Assumptions**

- Oil and Condensate prices SV-RT12 \$50/bbl, RV-RT12 at \$70/bbl and HV-RT12 \$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%).
- 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 RT12 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.

**PIB Assumptions**

- PIB as per Technical Committee proposals end June 2012
- Oil tax rate reduced from 85% to 80% (NHT 50% and CIT 30%)
- No ITA
- 6% of all costs disallowed for Tax purposes

**APPENDIX 4 – Bundle and Stand-Alone GIP Alignment**

Trans Niger Pipeline (TNPL) MCA 2 Projects	100% SPDC JV	Shell Equity Share	SPDC LTD MCA Share	Total Headline Size (Shell share)
Trans Niger Pipeline	929	279	323	602
Awoba FOD	196	59	71	130
Nembe Creek Phase 2	314	94	115	209
Nembe Creek Side Track	98	29	30	59
<b>Total TNPL MCA 2 Bundle</b>	<b>1537</b>	<b>461</b>	<b>539</b>	<b>1000</b>
<i>All Values in \$Million</i>				

Table 1 - Excerpt from Group Finance Proposal showing projects with the TNPL MCA Bundle

Description	Basis for Bundle GIP					Basis for TNPL GIP						
	100% JV	Shell Share	Equity	SPDC MCA Share	Ltd	Total Headline Size	100% JV	Shell Share	Equity	SPDC MCA Share	Ltd	Current Request IP
Pipelines CAPEX	869		261		323	584	869		261		323	584
PMT Cost	60		18		-	18	60		18		-	18
<b>Total CAPEX</b>	<b>929</b>		<b>279</b>		<b>323</b>	<b>602</b>	<b>929</b>		<b>279</b>		<b>323</b>	<b>602</b>
SCD OPEX							17		5		-	5
Previously Approved IP excluded from current request							(80)		(24)			(24)
							<b>867</b>		<b>260</b>		<b>323</b>	<b>583</b>

Table 2 - Reconciliation between the Bundle GIP and the TNPL Stand-alone GIP

*Note: \$17mln SCD Opex is to be sourced under JV base as it is not part of MCA.*

#### **APPENDIX 5 - Glossary of Abbreviations**

- JV: Joint Venture
- MCA: Modified Carried Agreement
- TNP: Trans Niger Pipeline
- TNPL: Trans Niger Pipeline Loopline
- NLNG: Nigerian Liquefied Natural Gas
- NAPIMS: National Petroleum Investment Management Services
- SCD: Sustainable Community Development
- FID: Final Investment Decision
- MOD: Money of the Day
- GMOU: Global Memorandum of Understanding
- NCDMB: Nigerian Content Development Monitoring Board
- EPC: Engineering Procurement and Construction
- IOC: International Oil Companies
- FOD: Further Oil Development
- BVA: Benchmarked Verified and Approved