The Shell Petroleum Company Limited

Group Investment Proposal

Summary Information

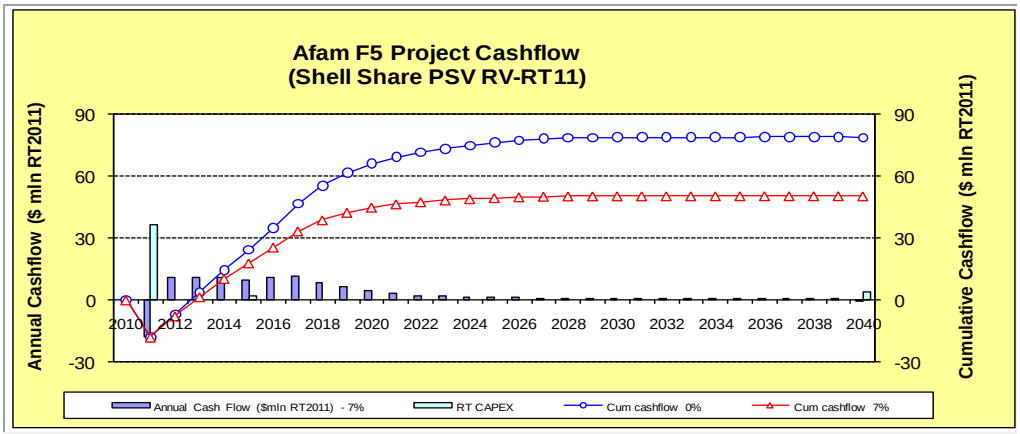
Business unit and company	Shell Petroleum Development Company of Nigeria
Group equity interest	100% in SPDC, whereas SPDC is the Joint Venture (JV) operator of an unincorporated JV with a 30% interest.
Other shareholders / partners	Nigeria National Petroleum Company (NNPC): 55%, TotalFinaElf (10%), and Nigeria Agip Oil Company (NAOC): 5%
Business or Function	Exploration & Production (EP)
Amount	US$38.93mln Shell Share, 50/50, MOD ($129.75mln 100% JV) is to be approved in this FID proposal. The balance of US $5.9mln Shell Share was previously approved as Pre-FID IP.
Project	AFAM-F5 Reservoir Development FID IP

Main commitments

Description	Pre-FID (100%)	This IP (100%)	This IP (Shell Share)	Total IP (100%)	Total IP (Shell Share)
FEED /Detailed Design	1.65	1.00	0.30	2.65	0.80
Well Location Preparation	7.00	0.34	0.10	7.34	2.20
LLI's (Flowlines, XXHP Separator)	10.00	0	0	10.00	3.00
Facilities (incl. Flowlines constr.)	0.00	36.11	10.83	36.11	10.83
Wells Drilling & Completions	0.00	78.90	23.67	78.90	23.67
Project Management Cost	0.50	4.70	1.41	5.20	1.56
Contingency	0	7.50	2.25	7.50	2.25
Total Capex	**19.15**	**128.55**	38.57	147.70	44.31
SCD (Opex)	0.50	1.20	0.36	1.70	0.51
Total (50/50, MOD)	**19.65**	**129.75**	38.93	149.40	44.82

Source and form of financing	This investment will be financed with JV funding and Shell share capital expenditure will be met by SPDC's own cash flow.

Summary cash flow



Summary economics

RV-RT11	NPV 7% (US$ mln)	RTEP	VIR
Base Case (Full Project)	50.2	59%	1.32

Section 1: The proposal

Management Summary

This Investment proposal seeks FID approval for US$38.93mln Shell Share, 50/50, MOD ($149.40mln 100% JV). Pre-FID approval for US$5.9 mln Shell Share 50/50 MOD (US$19.65 mln 100% JV) was granted in May 2010.

The purpose of this FID Proposal is to enable the timely provision of additional gas supply from the AFAM-F5 field to Okoloma Gas Plant in Q4 2011 in order to bridge a projected shortfall in gas supply to the Okoloma facilities and to meet with growing gas demand from the Eastern Domestic Gas Network.

Afam F5 - a volatile oil rim reservoir - ranked low and was not included in the Okoloma GIP. The reservoirs from Afam field that were included in the GIP (Afam F1.0/1.4 and F3.0 reservoirs) have been executed. Afam F5 project now ranks high with robust economics as the processing facilities, to a large extent, already exist (Okoloma gas plant). The gas plant utilization forecast chart is included as attachment 1.

Afam field was discovered in 1956 and is located in OML 11, about 40 km east of Port Harcourt. Afam F5.0A reservoir is the largest reservoir in the Afam field with expectation resource volume in place of 88.1 MMstb of Oil (STOIIP), 371.2 Bscf of gas (FGIIP =181.4Bscf & SGIIP = 189.7Bscf) and 19.6MMstb of condensate (CIIP). The cumulative oil production (Np) to date is 15.8MMstb with associated gas production of 53.8Bscf (Gp).

The approved Afam F5.0 Reservoir Development Plan (RDP) proposes development of 5 MMstb of oil, 172.2 Bscf of gas and 8 MMstb of condensate, resulting in life cycle recoverable volume of 20.8 MMstb for oil and 8 MMstb for condensate, 226.0 Bscf of gas. The total recovery factor for the oil, gas and condensate are 24%, 61% and 40% respectively. This development plan is a concurrent oil & gas development and will contribute, at peak production, 80MMscf/d gas and 6300 bbls/d oil and condensate.

The Reservoir Development Plan (RDP) was approved in December 2009. Support and approval was secured from SPDC Decision Review Board to commence the 'definition' phase, and mature the concurrent oil & gas development concept which led to the Pre-FID IP approval May 2010. The Pre-FID scope covers FEED/detailed design works, procurement of long lead items (line pipes and XXHP separator), location preparation, SCD and Project management for which budget provision was also secured for 2010 from the JV Partners.

The total project cost is US$**149.40** million, which includes US$19.65(100%JV) approved under the pre-FID investment proposal. Total project cost comprises of US$68.8million for oil & gas flowlines and process facilities (manifolds, XXHP separator, IC&A, corrosion inhibitor systems and evacuation lines), US$1.7million for sustainable community development and $78.9million for wells.

This phase of development fits into SPDC JV strategy and the Nigerian National aspiration of improving power generation and gas supply for domestic and industrial use in Nigeria while harnessing natural resources and increasing hydrocarbon resource base.

Project Scope

The full project involves the drilling of 3 wells: a NAG well, an Oil Well and a Swing Well (oil/gas), the procurement and installation of flowlines, and associated equipment to evacuate

the wells fluids to the Okoloma Gas Plant for further processing and gas export sales to the Eastern Domestic Gas Network. Oil production will be evacuated via Okoloma condensate processing infrastructure to Bonny Terminal via the Kom Kom manifold export axis.

Details are as follows:

Sub-surface scope

- Drilling and completion of 1 dedicated oil, 1 dedicated NAG well and 1 swing oil/gas well initially to be completed as an oil well in 2011.
- Re- completion of the swing well as a gas production well by year 2015

Surface scope

- Location preparation for two well sites (existing Afam-16 & -17 well locations).
- Construction of a 6 inch x 0.6 km gas flowline to Afam gas manifold connecting to Okoloma gas plant for processing.
- Construction of 2 nos. 8 inch x 12.5 km each of oil flowlines to Okoloma gas plant.
- Installation of an oil inlet manifold at Okoloma gas plant.
- Installation of an XXHP separator at Okoloma gas plant.
- Extension of the bulk header at Afam gas manifold.
- Installation of a corrosion inhibitor injection system at Afam gas manifold.
- Installation of 5.9 km of corrosion inhibitor injection lines to the three wellheads.
- Piping and instrumentation tie-ins to Okoloma gas plant inlet facilities.
- Piping and instrumentation tie-ins to Afam gas manifold

Table 1: Expenditure Phasing (US$mln MOD 50/50) for full project scope.

Cost Phasing in US$mln MOD(50/50) 100% JV	Pre-FID IP 2010	2011	2012	2013	2014	2015	**TOTAL IP (100%)**	**TOTAL IP (Shell Share)**
Oil Location Preparation	3.50	0.20	-	-	-	-	3.70	1.11
Oil Development Drilling		32.81	-	-	-	-	32.81	9.84
Oil Development Completion	0.00	13.83	-	-	-	-	13.83	4.15
Oil Flow lines and Hookup	7.55	22.45	-	-	-	-	30.00	9.00
Oil Facilities	4.00	18.20	-	-	-	-	22.20	6.66
NAG Location Preparation	3.50	0.14	-	-	-	-	3.64	1.09
NAG Development Drilling	0.00	17.00	-	-	-	-	17.00	5.10
NAG Development Completion	0.00	8.76	-	-	-	-	8.76	2.63
NAG Flow lines and Hookup	-	3.17	-	-	-	-	3.17	0.95
NAG Recompletion	-	-	-	-	-	6.50	6.50	1.95
Project Management	0.40	4.03	0.77	-	-	-	5.20	1.56
Security	0.20	0.54	0.15	-	-	-	0.89	0.27
SCD	0.50	0.30	0.70	-	0.00	0.20	1.70	0.51
Total	19.65	121.43	1.62	0.00	0.00	6.70	**149.40**	**44.82**

Note 1: Contingency of 16% has been included for surface scope in the above estimates.
Note 2: Contingency for subsurface scope has been built into cost as advised by subsurface cost engineer.

Section 2: Value proposition and strategic and financial context

The entire Afam F5.0A Project is driven by business objectives that are fully aligned with the SPDC Business Priorities and Nigerian aspirations through the following:

Safeguarding Existing Asset (Okoloma Gas Plant)
The proposed wells will be hooked-up to Okoloma gas plant to utilise existing ullage. This project serves as an interim project to make up for the projected shortfall of gas supply in eastern domestic gas network pending when gas from Buguma Creek is matured.

Contribute to Delivery of Existing Gas Supply Commitment
Project is linked to eastern domestic gas network for gas supply in support of government aspiration to improve power generation and gas supply for domestic and industrial use in Nigeria. The gas volume from Afam F5 will ensure that Afam V & VI power plants are not starved of gas prior to the maturation of Buguma creek gas.

Increase oil Production
This project will increase oil & condensate production from the Afam field by circa 6300 bopd through drilling of the three wells.

Develop Reserves
Project will develop circa 172.2 Bscf of gas and 13.0 MMstb of oil & condensate.

Summary Economics

The base economics for this IP was evaluated on a forward-looking basis using the project 50/50, cost estimate and production forecast. The project returns a base case NPV7 % of $50.2mln RT11.

Sensitivity analysis was carried out to determine the values of the project at different subsurface realizations and high CAPEX .Additional sensitivity was also carried to show the Full life cycle which includes the previously approved Pre-FID costs. Given the uncertainty surrounding the Nigerian EP fiscal regime, additional sensitivity on the base case was carried out to determine the possible impact on the project value of the Petroleum industry Bill (PIB version 9.2) to. Detailed results in table 2 below

Table 2: Economic Grid (Shell share)

PV Reference Date: 1/7/2011	**NPV (S/S $ mln)**		**VIR**	**RTEP**	**UTC (RT $/bbl or $/mln btu)**		**Payout-Time (RT)**	**Maximum Exposure (S/S $ mln)**
Cash flow forward from: 1/1/2011	**0%**	**7%**	**7%**	**%**	**0%**	**7%**		**AT**
Base Case								
SV ($50/bbl RT11& NGMP)[1]	70.6	**44.6**	**1.18**	53%				
RV ($70/bbl RT11 & NGMP)	78.5	**50.2**	**1.32**	59%	3.9	5.1	2013	34.1(2011)
HV ($90/bbl RT11 & NGMP)	86.4	**55.8**	**1.47**	64%				
BEP (RT $/boe)					**NA**	**NA**		
Sensitivities (using RV)								
Low Reserves (P90)		**36.8**	**0.97**				2014	34.3(2011)
High Reserves (P10)		**53.7**	**1.42**				2013	33.3(2011)
High Capex (P90)		**49.2**	**1.17**				2013	38.1(2011)
Full Life Cycle		**48.3**	**1.10**				2013	37.0(2011)
License Expiry		**41.9**	**1.10**				2013	34.1(2011)
PIB IAT Version9.2		**19.6**	**0.52**					

1: Nigeria Gas master plan
2: IAT: Inter Agency Terms

Project Parameter Table (Shell share)

Parameter	Unit	Bus Plan (BP10)	Low	Mid	High	Comments
CAPEX (MOD)	US$ mln	49.8	NA	44.3	48.5	
OPEX (MOD)	US$ mln	NA	NA	1.9	NA	ABC Opex + SCD
Production Volume	mln boe	9.8	8.9	12.0	12.7	
Start Up Date	mm/yyyy	2011	2011	2011	2011	

Economic Assumptions

- Oil PSV of $70/bbl RT11 and Domgas PSV based on NGMP was used
- Oil & Condensate taxed at under PPT.
- Gas taxed under CITA with Associated Gas Framework Agreement (AGFA) incentive
- ABC Opex was used.
- NDDC levy of 3% total expenditure.
- Education tax of 2% assessable profit.
- 10% of total project RT CAPEX assumed as abandonment cost
- GHV of 1000btu/scf

Assumptions for PIB sensitivity

- Royalty rate is graduated and dependent on daily production and oil price
- National Hydrocarbon Tax (NHT) rate is 50%.
- CIT is 30% of taxable income and is not deductible from NHT
- Education tax calculated as 2% of its assessable profit & is not deductible for CIT, but deductible for NHT.
- NDDC levy calculated as 3% of project (Expex + Capex + Opex)
- Withholding tax is applicable at a rate of 7.5%
- 20% of overseas cost is non-deductible for determination of NHT taxable income
- 7% of Cost are not benchmarked, verified and approved and are not tax deductible
- Industry funding levy calculated at $0.5/bbl for Oil and Condensate and $0.01/MMbtu for gas

Section 3: Risks, opportunities and alternatives

Risks

Funding/ Discontinuation of Project after Partial IP commitments:

JV Partners have approved the JV funding of the Pre-FID scope of this project as part of the 2010 budget provisions and NAPIMS Gas division have consented that SPDC proceed with this project during various engagements. However, there is residual risk in securing multi-year funding given uncertainties in government policies which may affect funding priority.

Project commitments to date cover principally the cost of location preparation, FEED/detailed design and procurement of long lead items: XXHP Separator and line pipes.

Mitigation:.

Currently, there is demonstrated unprecedented political will by all arms of Government to support Domestic Gas supply and there is increasing threat of shortfall of feed gas for power

generation via national and state owned power stations. This will continue for the next couple of years.
The pre-FID expenditure: project long lead materials are mainly very high pressure (XXHP) separator and high pressure line pipes. In view of the specifications for the long lead materials, opportunity exists to easily divert and utilise these materials on other medium/long term domestic gas growth projects - which have identical material requirement. The pressure regime of the vessels and line pipes make them easily adaptable for use on low pressure and high pressure oil & gas projects

HSE Risk
The project HSE risks include but not limited to working in/around live facilities (the Okoloma gas plant and Afam remote field manifold), overpressure/loss of containment, poor weather condition, equipment failure/transportation hazards and contractor's HSE/technical incompetence during construction phase which could lead to incidents.

Mitigation
HSE interface document will be developed detailing responsibilities for work permitting system, emergency response command and concurrent operations in brownfield areas. Hazard register exist for the project and a detailed assessment of the major accident hazards (MAH) will be done as part of the front end design. Control and recovery measures from such assessment shall be demonstrated to be ALARP and documented in design HSE case.

The project HSE plan is in-place, and covers all construction / logistics activities hazard analysis and mitigation methods. SPDC HSE policies will be strictly adhered to during construction, installation and commissioning. In addition, contractors to be nominated shall be competent to manage construction risks

Execution of Petroleum Industry Bill (PIB):
Planned changes to the country's management of the oil and gas industry and in particular the fiscal terms are being considered by the National Assembly. Proposed fiscal changes disfavour existing dry gas fields such as this and the development would only be profitable if proposed wording on Production Allowances for new Field Development Plans are included in the final PIB.

Mitigation: Sustained lobbying is being carried out with the legislators to encourage the adoption of these provisions.

Security Risks:
The unstable security situation in the Niger Delta area is a key risk that can result in schedule and cost overrun. The Afam field is located in the Land area of the Niger Delta. Though not at the highest-level security risk, the potential for escalation exists both for assets and personnel that could severely impact project execution, start-up and Freedom To Operate. Specific security cases border mostly on Youths' Restiveness, Incessant attacks on wellheads/facilities, crude oil theft (illegal bunkering) and pipeline vandalism as well as Kidnapping.

Mitigation:
Security threats are being managed and controlled; the Federal Government's declaration of Amnesty to Militants and subsequent deployment of enlarged armed security personnel of the Joint Task Force (JTF) to the area appear to be working. These new developments notwithstanding, appropriate security protection measures in line with SPDC Security Management System will be incorporated both in the design of the facilities and the remote operations framework. Project security plan will be developed in conjunction with projects and land area security advisers.

Community Interface:
Community interference and forced shutdown of work: Due to restive nature of communities in the Niger delta significant delays and serious security and safety incidents could result from community disturbances.

Mitigation: A 5-year steady – state GMoU was negotiated and signed on 20/08/2010 for Oyigbo cluster, to which the six communities impacted by this project belongs. As a result of this project, a GMoU Top up fund will further be negotiated and agreed with the Community Trusts (CTs) of the 6 communities and the Oyigbo Cluster Development Board (CDB). The agreement will be an addendum to the Steady state GMoU for Oyigbo Cluster and it will cover all SPDC activities in this project for a period of 5 years. Payment schedule shall be for two tranches each year. The Budget for the cluster which has been approved by NAPIMS shall also be ring-fenced to ensure payment schedules are maintained throughout the 5-year period. ESHIA approval was obtained in 2008 and will remain valid until 2012. The validation will be done in early in 2011 to ensure the continuity when the present approval expires.

Scope Creep/ Escalation in Project Cost
The FEED work is completed, and was done by SCiN FEED office. The FEED work will significantly reduce the likelihood of Scope Creep after the award of ePC contract and also guard against elongation of project Schedule.

Delays in Approvals
The scope of the Afam F5.0A project is contained in the Afam FDP that has an EIA approved by Federal Ministry of Environment Housing & Urban Development in 2007 and DPR in 2008. Thus, it shall not be necessary to conduct fresh EIA studies for this project. However it is expected that the regulators shall conduct compliance monitoring of the Environmental Management Plan (EMP) for this project

Mitigation: Continuous stakeholder engagement to assure LTO and compliance with Regulatory authorities shall be pursued.

Subsurface Uncertainties:
The key risk in this project includes fluid contact uncertainty, PVT data, schedule and cost overrun.
Subsurface work is concluded. The Afam F5.0A Reservoir Development Plan (RDP) was approved in Dec 2009 addressing plans to manage the risk due to the subsurface uncertainties i.e. fluid contact uncertainty and PVT data.

Mitigation: To manage these uncertainties, it is proposed to drill pilot holes in the proposed wells to establish present contacts/oil rim thickness to ensure optimal placement of drain holes. In-spite of these uncertainties, the project RDP reveals there is adequate reservoir fluids inter-connectivity and the economics has demonstrated the robustness and viability of this project.

Technical/NCD:
Implementation of the Nigerian Content directives (NCD) is not a key challenge here as most activities will be executed in-country and with Nigerian registered contractors. FEED was executed by SCiN FEED Office & NETCO; detailed design will be executed in Nigeria by IMPaC, while site installation is to be single sourced to Daewoo. The workforce is expected to be largely locals. The only exception is procurement of the long lead materials which will be

imported due to unavailability locally. Project team has formally engaged NAPIMS on the contracting strategy and NAPIMS have indicated willingness to support the strategy.

Procurement Delays & Alignment with Well Engineering:
Delays in placement of orders for long lead items will have considerable impact on project completion.
Mitigation: Securing approval of Pre-FID was one mitigation measure aimed at ensuring that placement of orders for long lead can be promptly done in alignment with drilling sequence. Long lead materials have been ordered with estimated delivery dates between March and September 2011.
Opportunities

1) Reduction of footprint and environmental impact through clustering of wells at existing locations and existing ROW.
2) Reduction of footprint and environmental impact through the use of Selective completion wells.
3) Maximizing the use of existing infrastructure at Okoloma Gas plant.
4) Maintaining synergies with other ongoing projects eg Bonny AG, Alakiri NAG, etc. For example, the execution team for Afam F5.0 is same as that for Bonny AG & Alakiri NAG plant refurbishment.
5) Local fabrication capability building in line with Nigerian Content Directives.

Alternatives Considered
Several surface facilities options were considered including:

- Location of the choke in-field or at Isimiri or Okoloma gas plant was considered. The choke will be located at the Okoloma gas plant condensate train inlet manifold, to ensure ease of operations
- The costs indicate that it is more expensive to process the oil stream at Isimiri flowstation, than Okoloma gas plant which is farther by 2.17Km. Also an additional vessel (XHP Separator) would need to be installed in Isimiri unlike in Okoloma which already had one.
- Decision on Flowline and Bulkline Pressure Protection options i.e Fully rated or Pressure + High Integrity Pressure Protection System (HIPPS) was considered. The Fully Rated option was selected for operational purposes, it will be easier to maintain the fully rated flowlines, than installing a HIPPS system which will require additional instrumentation; power supply and air supply vessels. Also an important safety consideration in this choice is the prevention of loss of containment due to flowline or bulkline overpressure situations which can result in impact to human life and the environment.
- Various types of Bulk/Flowline Materials were considered for use: Duplex Stainless Steel, Carbon Steel + Corrosion Inhibition, Carbon Steel + pH Control or GRP Lined carbon steel. Carbon steel with corrosion allowance, in addition corrosion inhibition (using a Permanent Chemical Injection System as opposed to a mobile one) was selected on account of the predicted internal corrosion rate and estimation of the service life corrosion for the oil lines. Corrosion inhibition will not be applicable for the gas line.

Carbon management
The only source of HC emission into the air on this project is via leak of HC from normal operation, e.g. leaks from relief valves which are routed to the flare and is infrequent, and leaks from flanges.

However the right level of tightening will be applied to flanges to ensure that this does not occur. Also, flaring shall no longer be routine, as surge vessel gas will be collected and pilot gas will be of such little quantity as to be insignificant.

All liquid emissions shall be routed to the closed drain header and from thence pumped back into the export system, to avoid contact with the environment.

Section 4: Corporate structure, and governance

This project fits within the existing SPDC corporate structure and governance.

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

This proposal complies with Group Business Principles, policies and standards. Full functional support covering SCD is provided for in the full project scope. Additionally, there will be a focus on Nigerian Content Development (NCD) as already indicated above. Functional support for this proposal is provided by the Finance, Supply Chain Management, Legal, Treasury and Tax functions.

Section 6: Project management, monitoring and review

The Major Projects Team under UIG/T/PD is managing the project. The Project assurance plan is compliant with the ORP stipulations with project specific DRB, DE and BOM in place. The project has progressed through the VAR process and the Reservoir Development Plan was approved December 2009. Currently, FEED work is completed, and orders have been placed for the LLI's. ePC contractor – Daewoo Nigeria Limited – has been approached to provide quote for the detailed engineering. PAR4 was done 2nd – 4th Nov. and most of its recommendations have been closed out. See attachment 2. This IP is being issued in parallel with DRB submission on the project and DG4 in order to remain on track with project execution schedule.

Section 7: Budget provision

The Afam F5.0A Reservoir Development Project is in SPDC's BP'10 with a 2011 budget provision of US$44.64million for surface scope, and US$67.88 million for well drilling scope; both approved by JV Partners. The Nigerian Government for domestic gas projects has indicated their support for the full project scope and is being engaged continuously.

Section 8: Group financial reporting impact

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

US$ Million	Prior Years	2011	2012	2013	2014	2015	Post 2015
Total Commitment	**5.90**	**36.71**	**0.20**	**0.00**	**0.00**	**2.01**	**0.00**
Cash Flow							
SCD Expenditure		0.09	0.20			0.06	
Pre-FID Expenditure	5.90						
Capital Expenditure		36.62				1.95	
Operating Expenditure		1.15	0.28	0.26	0.27	0.41	1.97
Cash flow From Operations		10.11	16.60	11.28	11.45	12.13	66.74
Cash Surplus/(Deficit)		(26.50)	16.60	11.28	11.45	10.18	66.74
Profit and Loss							
NIBIAT +/-		1.91	7.82	7.76	8.12	8.18	64.14
Balance Sheet							
Avg Capital Employed		14.20	24.02	17.86	14.44	11.77	8.08

Section 9: Disclosure

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

Section 10: Financing

This investment will be financed with JV funding and shell share capital expenditure will be met by SPDC's own cash flow and/or the existing shareholder loan facility.

Section 11: Taxation

There are no unusual taxation features except for the risk of the government abolishing AGFA There is the possibility that the project will be affected by PIB, in which case AGFA will not be applicable. The effect of this risk has been evaluated in the economics (see section 2, table 3b).

Section 12: Key Parameters

This investment proposal seeks FID Investment approval of US$38.93mln Shell Share, 50/50, MOD ($129.75mln 100% JV) in support of the implementation of the AFAM-F5 Reservoir Development Project bringing the overall project expenditure to US$44.82mln Shell share.

Section 13: Signatures

This Proposal is submitted to the ECMB for approval.

Supported by:

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Bernard Bos - FUI/F
Date ..../..../.....

For shareholder approval:

.....

Ian Craig (UIG)(for ECMB)

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

Initiator: _____

Toyin Olagunju (*SPDC-UIG/T/PD*)

Date …/…./….

ATTACHMENT 1