Group Investment Proposal

Summary Information

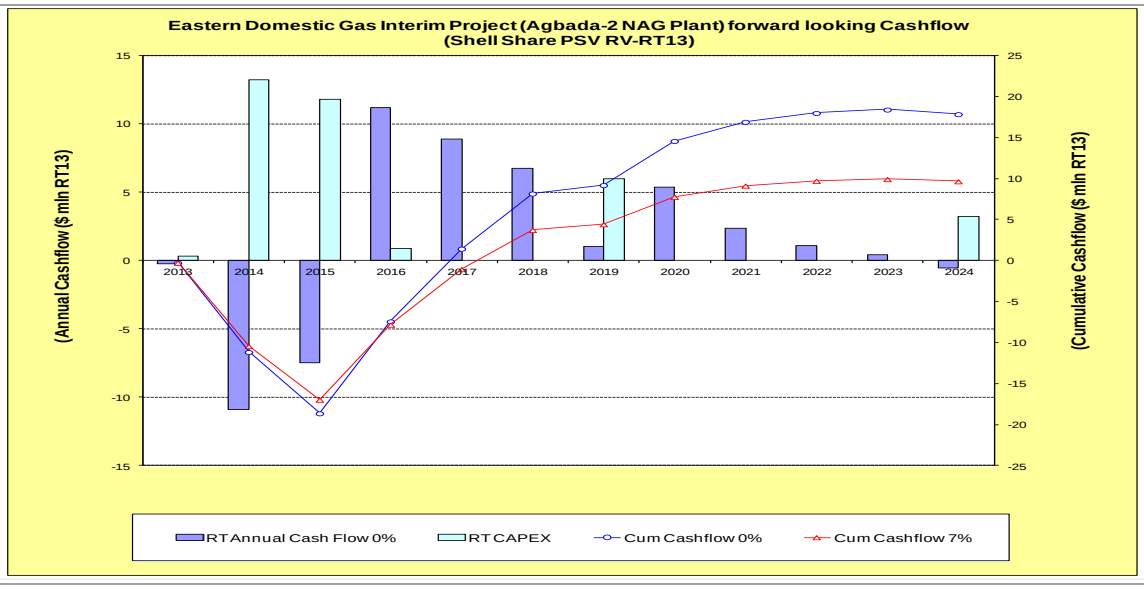
Business unit and company	The Shell Petroleum Development Company of Nigeria Limited (SPDC)
Group equity interest	100% in SPDC, whereas SPDC is the Joint Venture (JV) operator of an unincorporated JV with a 30% interest.
Other shareholders/partners	Nigeria National Petroleum Company (NNPC: 55%), Total E&P Nig. Ltd (10%), and Nigeria Agip Oil Company (NAOC: 5%)
Business or Function	Exploration & Production (E&P)
Amount	This IP seeks approval for further Shell Equity Investment of US$ 33.73million MOD 50/50. Previously, US$ 62.85million (Shell Equity) was approved on GIP 29.10.09, which is now fully spent. With this proposal, total Shell Equity Investment in the project becomes US$ 96.58 million of which US$ 62.85 million is sunk cost.
Project	Eastern Domestic Gas Interim Project (Agbada-2 NAG Plant)

Main commitments

Description	Previous GIP (100%)	This IP (100%)	This IP (Shell Share)	Total IP (100%)	Total IP (Shell Share)
Drilling of 2 Wells & 1 Recompletion	54.60	14.32	4.30	68.92	20.68
Flowlines & hookup	24.30	27.76	8.33	52.06	15.62
Agbada NAG Plant	82.30	35.26	10.58	117.56	35.27
Project Management	9.00	25.50	7.65	34.50	10.35
Contingency	30.50	9.60	2.88	40.10	12.03
Total Capex	**200.70**	**112.44**	**33.73**	**313.14**	**93.94**
SCD (opex)	3.20	0.00	0.00	3.20	0.96
Pre-FID (opex)	5.60	0.00	0.00	5.60	1.68
Total (50/50, MOD)	**209.50**	**112.44**	**33.73**	**321.94**	**96.58**

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	Summary Economics	NPV7(USD mln)	RTEP (%)	VIR
	SV	6	17.8	0.21
	RV	10	24.2	0.35
	HV	14	31.5	0.52

***Section 1: The proposal (*Management Summary)**

This investment proposal seeks support for the funding of US$ 33.73mln (Shell share) having previously obtained approval for US$ 62.85mln (Shell share) in October 2009 to develop the Agbada NAG field comprising drilling of wells, installation of flowlines, procurement and installation of a NAG plant along with related miscellaneous/integration works at Agbada-2 AGG plant/flowstation required to deliver the Eastern Domestic Gas Interim Project (EDGIP).

The EDGIP project was initiated to meet (on an interim basis) SPDC's projected supply commitments to the Eastern Domestic Gas market and this project predates current wave of Domgas supply obligations being imposed on gas producers by Government, but it rolls into the short-term volumes. Two independent power plants; Alaoji and Geometric have signed gas supply agreements with SPDC and are billed to utilize the gas to be supplied by Agbada NAG plant.

Agbada NAG took FID in October 2009. From commencement of project till date; 2 NAG wells have been drilled, flowlines and associated facilities awarded to Daewoo Nig Ltd is 98% completed, while the NAG plant, which was awarded to Makon Eng & Tech Services (METS), a local contractor as part of the DOMGAS and AG Solutions contract S17893 in September 2009 has progressed to about 60% completion. Overall, the project is progressing towards completion, but has experienced challenges and changes, which have led to cost growth with initial IP being 99% spent; hence this revised IP requesting management approval for additional budget to complete the Agbada NAG development.

Cost Growth

The budget approved under the existing GIP is US$ 209.50mln. Figure 1 below provides a breakdown of the cost of the initial as well as the additional scope required to complete this project.

Since after the last GIP approval, there have been changes to the project scope and delivery due to:

1. The need for the project to conform to Asset Integrity Process Safety Management (AIPSM) standards which stipulated a list of minimum mandatory DEPs. This requirement has now been built into the scope of this project which was initially based on international standards. Key changes include full segregation of SIS & PAS and replacement of threaded with flange connections.
2. Change in plant configuration from 1 by 120MMscf/d to 2 by 40MMscf/d due to revised production forecast and operational exigencies in order to achieve better plant turn down ratio. This led to a duplication of most vessels and equipment.
3. Breakdown in relationship between GHF contractor (METS) and technical partner (PROPAK) leading to the engagement new technical partner (ENERFLEX). New contract of 2011 based on ENERFLEX price was significantly higher than that of the 2008 contract.
4. Pipelines contract with Daewoo Nigeria Limited was awarded at a significantly higher cost than anticipated due largely to additional scope required to synergize project objectives with that of asset operations and ROCI at Agbada-1 Flowstation. This involved installation of bigger generators, new fuel gas system, new instrument air packages and ancillary works.
5. Unplanned well intervention activities to address casing pressure buildup in Agbada well 68 and review in cost of recompletion well planned for 2019.

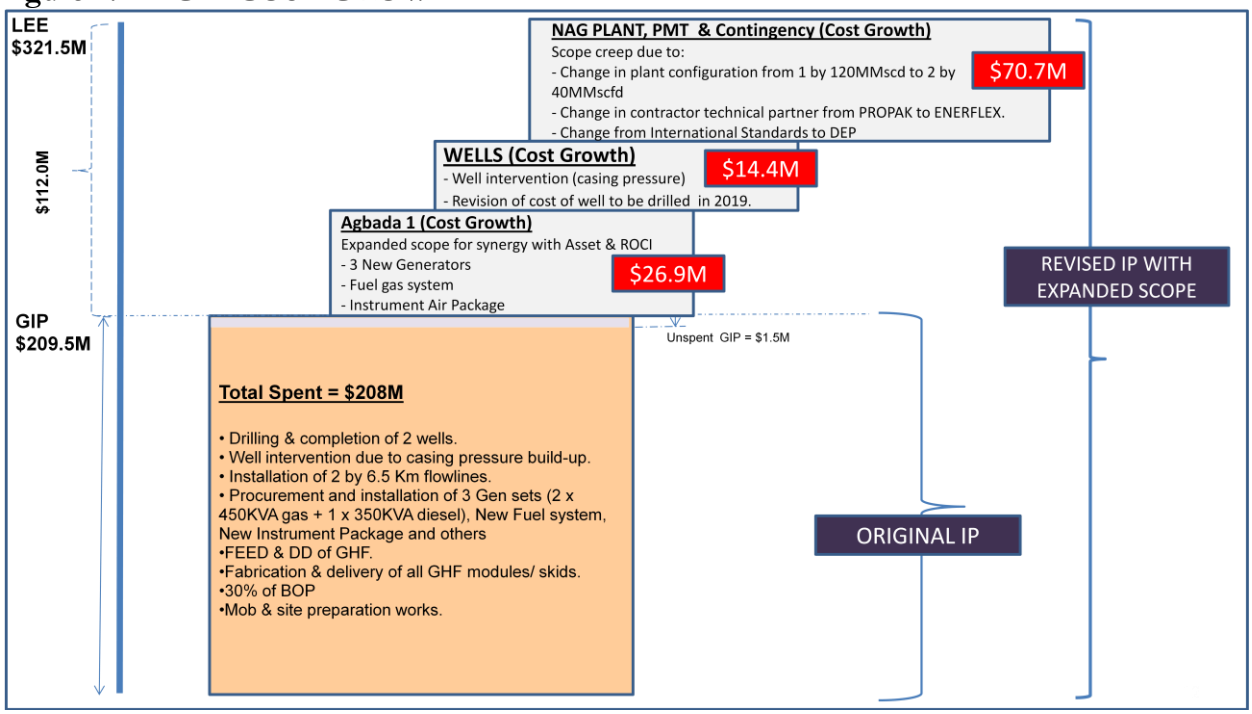
Forecast Changes:
There has been a reduction in volumes of Agbada NAG post drilling, with gas reserves dropping from 137 Bcf to 55 Bcf. This is as a result of wells meeting the reservoir deeper than the prognosis. However it is planned to keep Agbada plant full for its life via the development of the Rumuekpe feild through the Agbada plant. Study work on this field with a potential of 600 Bcf will commence in 2014.

Delivery Target:
On stream date aspired by Project Team, P50 Promise and P90 Promise are September 2015, December 2015 and March 2016 respectively. On stream is First Gas export to Eastern Domestic Gas Network from the Agbada NAG plant. The slippage in project on-stream date from the initial GIP promise of June 2010 to December 2015 is attributable to the following reasons:

- Management directive in November 2008 to seek alternative development options for the Agbada NAG field. Based on this project was placed on hold between December 2008 and August 2009.
- Need for project to conform to Asset Integrity Process Safety Management (AIPSM) standards with stipulated list of minimum mandatory DEPs contrary to International standards previously agreed with contractor. This change process led to considerable schedule elongation since contractor's technical partners were not conversant with DEPs.
- Change of technical partners by contractor METS from Propak to Enerflex after completion of FEED, leading to delays and need to redo the FEED.
- METS had financial challenges and could not progress project significantly between June 2012 and November 2013.

Following intervention by SPDC Management on the contractor's cashflow challenges, METS has now remobilized to site and construction and site installation activities have recommenced.

Figure-1: EDGIP COST GROWTH



Project Scope
The revised Agbada NAG field development entails the installation of a new 2 by 40 MMscf/d NAG plant with a mechanical refrigeration processing system at Agbada-2 adjacent to existing AGG plant and Flowstation at the site of the disused gas lift compressor station, which has now been fully

decommissioned. The gas from this plant will be exported into the eastern domestic gas network via gas export line at the AGG plant, while condensate will be exported via the Flowstation delivery line.

Two new wells have been drilled and completed in 2011 at Agbada-1 and the gas produced from the wells will be piped via 8 inches flowlines and sent to the Gas Handling Facility (GHF) at Agbada-2. The flowlines and end facilities are completed.

FEED and Detailed Design for the GHF have been completed, procurement and fabrication of all modules of the GHF have also been completed and transported to Nigeria. Outstanding works involves completion of Balance of Plant (BOP) procurement, site installation and commissioning works. Summary of project scope to ensure delivery of 80 MMscf/d of gas into the eastern domestic gas network is as follows:

Sub-surface scope

- Drill and complete two NAG wells on G6000 and G8000 reservoirs. Done in 2011.
- Abandon the G8000 completion and re-complete on the G4000 reservoir in 2019.

Surface scope

- Installation of a 2 by 40MMscf/d capacity GHF complete with inlet gas heating, gas/liquid separation, dehydration, dew point control, metering, gas/condensate stabilization and liquid export pumping at Agbada-2.
- Decommissioning of disused gas compressor station and site preparation works for the new NAG plant. Completed.
- Installation of Surge Vessel (SV) gas compressor to gather currently being flared at Agbada-2 Flowstation.
- Lay 2 nos. 8" by 6.5Km carbon steel NAG flowlines from Agbada-1 to Agbada-2 GHF, including hookup. Completed in Q4 2013.
- Install 2 nos. 450KVA Gas and 1 no. 320KVA Diesel Generators, Instrument Air Package, Fuel gas system and ancillary utility works. Completed.
- Procure and install well-kill manifold, corrosion inhibitor injection system and associated stainless steel tubing to the NAG wellheads. Completed.

Table 2: Expenditure Phasing (US$mln MOD 50/50) for full project scope.

Cost Phasing in USD mln, MOD, (50/50), 100%	Prior Years	2013	2014	2015	2016	2019	TOTAL
Wells	41.38	5.10				22.44	68.92
Flowlines and Hook-up	46.00	4.60	1.46				52.06
EDGIP- Agbada NAG Plant	72.96	12.80	39.00	23.30			148.06
Project Management	11.80	5.60	6.00	10.00	1.10		34.50
Total	172.14	28.10	46.46	33.30	1.10	22.44	303.54
Contingency				7.55	2.05		9.60
Total CAPEX (P50, MOD)	**172.14**	**28.10**	**46.46**	**40.85**	**3.15**	**22.44**	**313.14**
Spend on Pre-FID	5.60						5.60
SCD (opex)	3.20						3.20
Total OPEX (P50, MOD)	8.80						8.80
This Proposal (P50, MOD)	**180.94**	**28.10**	**46.46**	**40.85**	**3.15**	**22.44**	**321.94**

Section 2: Value proposition and strategic and financial context

This Investment Proposal is to provide addition funds required to complete ongoing development of the Agbada NAG field, which is already at an overall completion of 70% thereby ensuring that SPDC meets its commitment to the Nigerian Government of supplying additional 80MMscfd of gas into the eastern domestic gas network as well as derive benefit for the amount already expended on this project.

Apart from the Agbada field, which is being developed via this project, there are NAG fields at various maturation stages whose development strategy involves the utilization of Agbada NAG spare capacity for producing gas from these fields. Failure to complete this project will lead to value erosion and missed opportunities.

Summary Economics

The economics for this IP was evaluated on a forward looking basis using project 50/50 Level 3 final investment decision GIP headline cost estimate. The base case was evaluated at PSV-RV RT13. Sensitivities include value impact on high and low reserves, impact of high and low capex.

Table 3: Economic Grid (Shell Share)

PV Reference Date: 1/7/2013	NPV (S/S $ mln)		VIR	RTEP	UTC (RT $/bbl or $/mln btu)		Payout-Time (RT)	Maximum Exposure (RT)
Cash flow forward from: 1/1/2013	0%	7%	7%	%	0%	7%		
Base Case								
SV ($70/bbl)	12	6	0.21	17.8%	10.0	11.4		
RV ($90/bbl)	18	10	0.35	24.2%	10.0	11.4	2018	-26.713 (in 2015)
HV ($110/bbl)	25	14	0.52	31.5%	10.0	11.4		
Sensitivities (using RV) [4]								
High Capex		9	0.33					
Low Capex		10	0.41					
Low Reserves		5	0.19					
High Reserves		16	0.57					
Life-Cycle Economics		-7	-0.08	3.1%				

Key FID Project Parameter Data (Shell Share)

Parameter (Shell Share)	Unit	Bus Plan (RV)	Low	Mid	High	Comments
Capex (MOD)	US$ mln	33.7	30.8	33.7	35.2	
Production Volume	mln boe	4.17	3.13	4.17	5.62	
Start Up Date		Dec-15	Mar-16	Dec-15	Sep-15	
Opex	US$ mln	7	5.54	6.52	6.60	
Production in first 12 months	mln boe			1.25		

Economics Assumptions:

- Oil PSV of $90/bbl @RV-RT13 (Base) with applicable offset.
- Gas sales to domestic market Aggregate Domgas PSV-RT13 based on Nigeria Gas Master Plan (NGMP).
- Oil taxed under Petroleum Profit Tax (PPT tax rate of 85%).
- Gas taxed under Companies Income Tax Act (CITA) with Associated Gas Framework Agreement (AGFA) incentive.
- OPEX assumptions as follows:
  - Generic fixed OPEX and SPDC 31/12/2012 variable ARPR (Annual Review of Petroleum Resources) OPEX for Okoloma Gas Plant of $0.62/bbl was applied.
- 2.5% of the project MOD CAPEX assumed as SCD.

- Education Tax of 2% of assessable profit.
- NDDC levy of 3% total expenditure.
- Gas Heating Value (GHV) of 1000 btu/scf).
- 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

Contractor's capacity to execute multiple EPC (DOMGAS) projects concurrently.

The contract S17893 was awarded to METS to execute multiple projects under the Domgas/AGS portfolio. By reason of the volume and the spread of the Domgas/AGS projects, METS capacity to execute multiple projects concurrently within the contract duration has been greatly challenged. Although a lot of gap-bridging efforts have been made towards assisting METS to deliver with attendant schedule revisions, the risk still exists on the outstanding work scope. This may lead to further project delay and the projects not being completed within the revised project schedules.

Mitigation: The Project Management Team PMT has deployed relevant SPDC owned resources where necessary, to assist METS to deliver the project. Series of engagements have been held with METS management leading to commitments to sub contract part of the construction work scope as required. Tripartite payment initiative has been put in place to facilitate direct payments to subcontractors, vendors and OEMs as may be expedient with a view to ensuring continuous progress on project. Continuous engagements and monitoring of METS executive capacity growth is on-going.

Contractor's unwillingness/inability to complete the contractual work scope.:

METS is currently going through some financial constrains and cash flow challenges. By reason of these challenges, coupled with inability to source for adequate financial support, METS may not have the financial capacity and/or willingness to deliver the outstanding work scope on the project and therefore may abandon the project. This would lead to both time and cost overrun.

Mitigation: PMT has reached an agreement with METS to secure for SPDC ownership all key deliverables even as they are being executed either by METS or subcontractors. Plans are in place to move GHF modules and major gas plant equipment that arrived recently directly to site.

Preservation of the Pipeline till the completion of Facilities:

The NAG Wells were completed in 2011. Flowlines are also almost completed. Due to the delay in facility completion, laid pipelines and associated facilities are exposed to vandalization and theft, thereby causing delay in facility commissioning and project cost overrun.

Mitigation: PMT in collaboration with the Asset team has put up a surveillance contract, currently active, to ensure security of the already installed assets including flow lines and accessories on the project. Plans are in place to introduce nitrogen into the installed flow lines to prevent corrosion.

Exposures from High volume of Land transportation:

The NAG plant is situated adjacent to Agbada 2 flow station – a location approximately 16Km North-East of Port Harcourt. During the execution of the NAG plant construction activities; there will be lots of land transportation/movement of Materials Equipment and Personnel, with interference from the everyday public and third party road users, thereby engendering high traffic hazards. This may lead to Road Transport Incidents, site shut down, threat to Goal Zero and Project schedule delay.

Mitigation: LIRA studies have been conducted with findings and recommendations signed off for guidance during the execution stage of the project. PMT shall ensure that approved journey management plans are followed with strict adherence to road movement and related HSE rules. Drivers' training, retraining and monitoring shall be given adequate attention.

Technical:

Vendors'/OEMs' refusal to send representatives to site for commissioning:

According to the current revision of the project schedule, completion and commissioning of the NAG plant may come up sometimes in 2015, which happens to be an election year in Nigeria. Political activities during that time may precipitate some unpleasant security situations which may raise concerns and thereby not encourage some vendors and OEMs of critical equipment to send their representatives to the Agbada site. This could result in further delay in project completion and cost overrun.

Mitigation: Critical equipments which require Vendors/OEMs presence during commissioning have been identified. Plans are in place to provide adequate security coverage for vendors reps before moving to site. Possible ways of accelerating commissioning before 2015 elections are being considered. Alternatives to physical participation of OEMs reps on site during commissioning shall also be considered.

Opportunities

1) Since the Agbada gas is condensate-rich, a significant portion of this projects revenue is derived from the condensate. Maximum condensate production rate should peak at 3.5kb/d with overall recovery of 13 MMb.
2) There are several reservoirs around Agbada and nearby fields with potentials to keep plant full for its life. An example is the Rumuekpe NAG field with a potential for 600 Bcf.
3) The project execution will also enable maturation/booking of undeveloped reserves

Contingencies

1) **Cost:** P50 contingency of 13% was used for this project. This was derived using the probabilistic cost risk analysis. Also the probabilistic risk analysis yielded an additional contingency of 23% for P90 case. Accordingly, the P50 total project cost estimate is $321.94mln MOD.
2) **Schedule:** The P50 and P90 schedule contingency (float) are about 8months and 11months respectively. Monte Carlo simulation package using pessimistic, most likely and optimistic durations on the scheduled activities and risk impact have been used to derive this contingency.

Section 4: Carbon management

There are basically two identified types of emissions into the air, on this project. The first is via leak of HC and the other via combustion. In normal operation, leaks from relief valves are routed to the flare and is infrequent. Another source of leaks could be flanges, however the right level of torquing will be applied to flanges to ensure that this does not occur.

Fuel fired engines shall be of low NOx, SOx and low burning to reduce the emission of GHG.

All liquid emissions shall be routed to the closed drain header and thence pumped back into the export system, to avoid contact with the environment. As much as possible, electric heaters shall be specified instead of fuel fired burners to mitigate the effect on the environment

Section 5: Corporate structure, and governance

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

Section 6: 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. Functional support for this proposal is provided by the Finance, Supply Chain Management, Legal, Treasury and Tax functions.

Section 7: Project management, monitoring and review

The Major Projects Team under PTP/O/ND is managing the project. The Project assurance plan is compliant with the ORP stipulations.

Section 8: Budget provision

The Eastern Domestic Gas Interim Project is in SPDC's BP'13 with a 2014 budget provision of US$45.0 Million, approved by 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 for project's full scope on Shell Group Financials is as indicated in the table below:

US$ Millions	2013	2014	2015	2016	2017	Post 2017
Total Commitment	0.3	13.5	12.3	0.9	0.0	6.7
Cash Flow						
SCD Expenditure						
Pre-FID Expenditure						
Capital Expenditure	0.3	13.5	12.3	0.9		6.7
Operating Expenditure	0.0	0.8	0.7	0.7	0.6	4.6
Cash flow From Operations			4.3	11.7	10.8	27.9
Cash Surplus/(Deficit)	-0.3	-13.5	-7.9	10.8	10.8	21.1
Profit and Loss						
NIBIAT +/-		0.1	0.2	8.4	5.2	14.1
Balance Sheet						
Avg Capital Employed	0.2	7.1	18.0	20.9	16.9	7.4

Section 10: Disclosure

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

Section 11: 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 12: Taxation

The main tax risk related to this proposal is the enactment of the PIB. However bill is not yet passed and the content of the final bill is still evolving and uncertain

Section 13: Key Parameters

This investment proposal seeks approval for further Shell Equity Investment of US$ 33.74million MOD 50/50 ($112.44mln 100% JV) in support of the completion of the Eastern Domestic Gas Interim Project at Agabda-2, which is already at 70% completion.

Section 14: Signatures

This Proposal is submitted to **UIO** for approval.

Supported by:

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Erwin Nijsse (FUI/O)
Date .../... /...

For shareholder approval:

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Harry Brekelmans UIO
Date .../.... /....

Initiator:

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Mr Akin Akinsipi (PTP/O/ND)
Date …/…/…

ATTACHMENT 1

Eastern Domestic Gas Interim Project – AGBADA NAG
PROJECT PLAN

Event Description	Planned Date BP07	Actual/ Forecast Date	Comment.
DG3 (Eastern Interim)	9th April 2007	9th April 2007	Actual
VAR4 Agbada	4th Dec. 2007	4th Dec. 2007	Actual
Pre-FID IP	30th May 2008	26st June 2008	Actual
Award NAG Plant Contract	31st Mar. 2008	1st Sept 2008	Actual
DG4	31st Jan. 2008	13th May 2008	Actual
FID (Agbada)	15th Mar. 2008	29th Oct 2009	Actual
1st Gas (50/50 Date)	28th Jun 2010	30th Dec 2015	Proposed