Group Investment Proposal

Summary Information

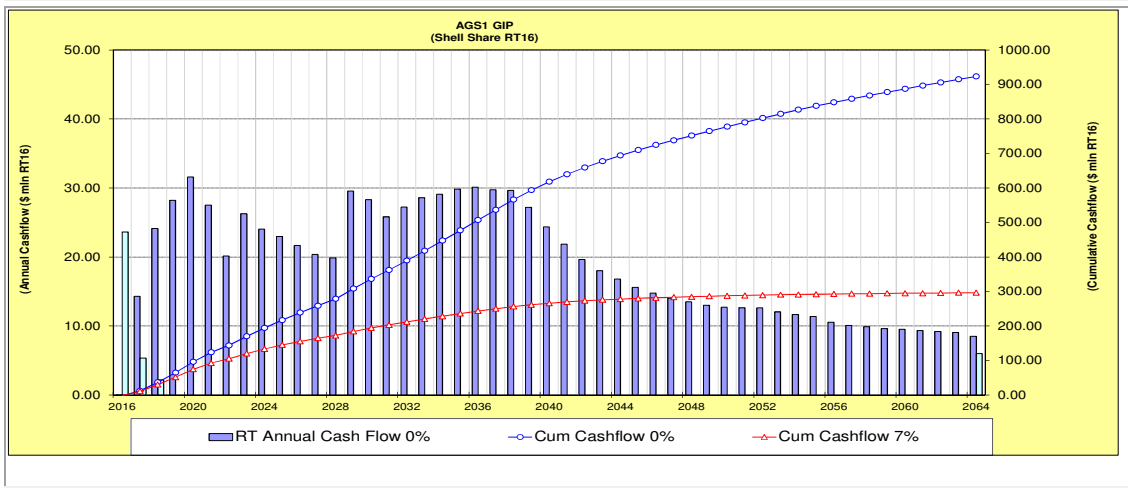
Business Unit and Company	The Shell Petroleum Development Company of Nigeria Limited (SPDC)
Group Equity Interest	100% in SPDC, whereas SPDC is operator of an unincorporated JV with a 30% participating interest share.
Other shareholders / Partners	Nigeria National Petroleum Company (NNPC): 55%, Total E&P Nigeria Limited (TEPNL): 10%, Nigeria Agip Oil Company (NAOC): 5%
Business or Function	Exploration & Production (EP)
Amount	This GIP seeks approval for a further investment of $22.4mln (Shell share) 50/50 MOD. The sum of $222.1mln (Shell share) 50/50, MOD was previously approved consisting of $210.4mln Capex and Opex $11.8mln. With this proposal, total investment becomes $244.5mln (Shell share) 50/50, MOD.
Project	AG (Associated Gas) Solutions Phase 1 Project, incorporating: Bonny Flowstation, Adibawa Flowstation, Saghara and Otumara Flowstations. Utorogu, Ughelli East & West Flowstations which were previously within the AGS-1 portfolio have been divested.
Source and Form of Financing	This investment will be financed with JV funding, and Shell share of the expenditure will be from SPDC's own cash flow.

Main Commitments $USD mln (MOD)

Description	Previously Approved GIP	Sunk Costs	Estimate to Complete	This Proposal 100%	This Proposal Shell Share	Total GIP 100%	Total GIP Shell Share
Otumara-Saghara	263.3	488.6	73.0	298.3	89.5	561.6	168.5
Adibawa	117.4	125.6	10.6	18.8	5.6	136.2	40.8
Bonny	97.6	57.4	0.0	-40.2	-12.0	57.4	17.2
Utorogu, Ughelli East & West	108.1		0.0	-108.1	-32.4	0.0	0.0
Contingency	114.8		14.2	-100.6	-30.2	14.2	4.3
SCD Opex	17.9	3.8	15.1	1.0	0.3	18.9	5.7
Total Capex + Opex (Post FID)	**719.1**	**675.4**	**112.9**	**69.1**	**20.7**	**788.2**	**236.5**
Pre-FID Expenditure	21.2	26.9	0.0	5.7	1.7	26.9	8.1
Total Expenditure (50/50)	**740.3**	**702.3**	**112.9**	**74.8**	**22.4**	**815.1**	**244.5**

Note: Negative amounts represent funds allocated to other projects

Summary Cash Flow



Summary Economics

At	NPV7% ($m)	VIR7%
Ranking PSV ($60/bbl RT09)		
Base Case (50/50)	243	8.02*
Full life cycle	266	0.82

*Note: This is for cash flow forward

Section 1: The Proposal

Management Summary

The AGS-1 Investment Proposal was approved for the execution of the Associated Gas Solution (AGS) Project for four nodal areas, i.e. Adibawa, Utorogu & Ughelli East/West, Otumara (including Saghara) and Bonny.

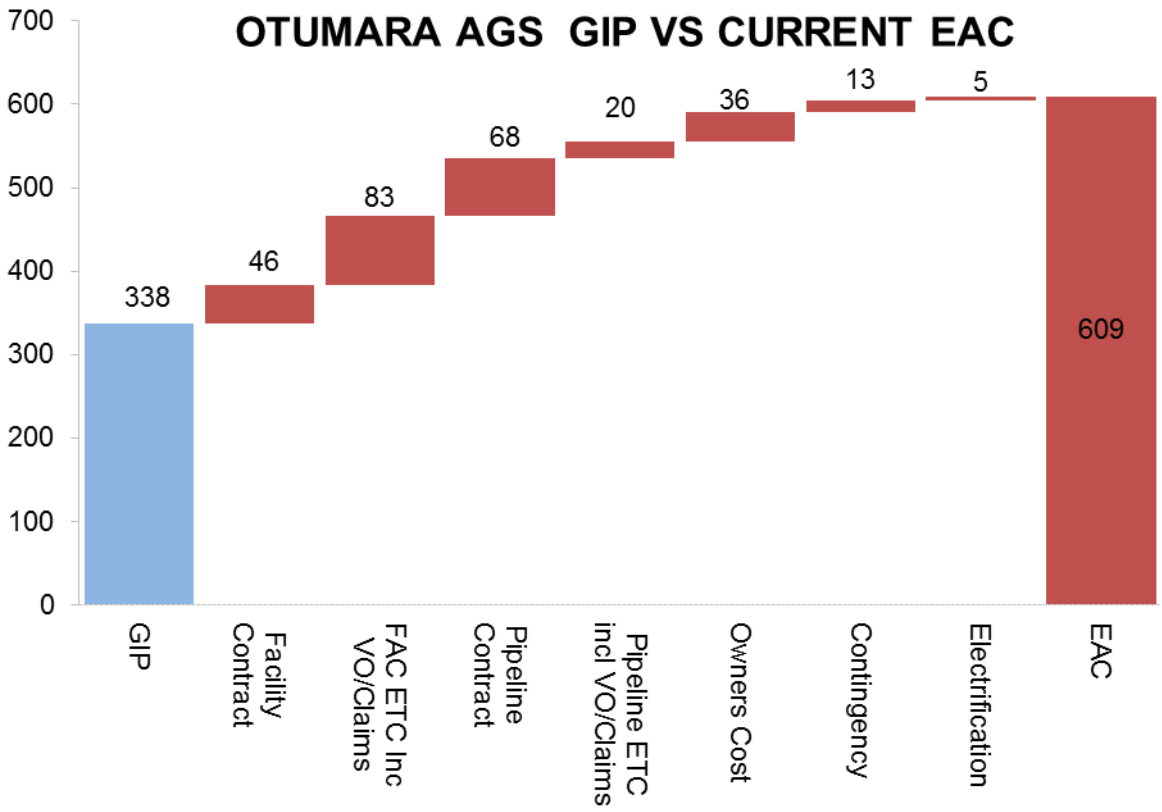
The projects were aimed at achieving flares out for the fields starting from year 2012.

Utorogu and Ughelli East/West fields were subsequently divested in 2012, while Bonny has been commissioned and capitalized. Works have also progressed to an advanced stage in respect of Otumara-Saghara and Adibawa. During the execution of the projects, some changes occurred, which affected the project schedule and resulted in a net increase to the project costs.

The purpose of this additional investment proposal is to cater for the increase in the project costs and change in schedule.

Cost Growth:

Otumara-Saghara scope experienced the most significant cost growth as shown in in waterfall chart below;



Major cost elements of the waterfall are as follows;

- **EPC Award costs:** the approved GIP was based on internal cost estimates for Otumara AGS facilities and pipelines contracts. The EPC award price was about 40% more than the estimated price.
- **Contract Variations:** Contract variations and claims, mostly driven by logistics, security and community shutdowns represent about 23% growth on the approved GIP.
- **Owners cost**: growth in owners cost due to prolonged site works and additional recources needed to manage the complex logistics, HSE exposures and domiciliation of works in-country.

Project Information

The AGS-1 projects were initiated in order to enable SPDC JV comply with Shell Group and Nigerian Government's aspirations to discontinue routine flaring as part of oil production activities in line with international standards.

The primary drivers for the project are environmental improvement, protection of oil production and reserves and maintaining Freedom to Operate in the acreages.

The economic value of the project is based upon protecting the continued production of 219 Mmboe from the fields beyond 2015 on a No Further Activity (NFA+STOG) basis. A further 75MMboe of further oil development will also be enabled by the project.

Project scope and Status

Bonny AGS Project

The Bonny Flowstation is within 100 m distance from an existing NAG flowline taking wet gas from Oloma to Bonny Terminal Fuel Gas plant. The project scope entails the installation of a 5 MMscf/d high-pressure booster compressor (120 bar) at the Flowstation and laying of a 6" x 0.1 km gas line to connect the flowstation AG to the NAG flowline for transmission as fuel gas to the power generation at Bonny Terminal.

The project execution commenced in 2009 and achieved first gas in July 2012.

Otumara AGS Project

The Otumara node consists of two Flowstations (Otumara & Saghara) with a combined processing capacity of 134,000 b/d. The scope of work includes the installation of 20 MMscf/d HP compressor with 30 MMscf/d TEG dehydration/HC Dew Pointing facility. A 2 x 100%, 6MW (ISO) power generation plant is installed from which power will be supplied to the field facilities and also to host communities as part of community interdependency and past commitment to these communities. A power distribution network consisting of 30 km of overhead cables, and 4 step down transformers, will be installed between Otumara CPF, Saghara Flowstation and the host communities.

A 12" x 2 km AG pipeline has been installed from Otumara to ELPS (Escravos-Lagos-Pipeline-System). All the flow from Saghara wells to Otumara will be re-routed through a 6" x 5 km bulkline and 4" x 5 km test lines.

The Otumara Project execution works commenced in 2011, the project is 95% complete, and is scheduled for first gas in 2016.

Adibawa

Adibawa is located within the vicinity of Gbaran. The project scope includes the installation of a 5 MMscf/d booster compressor to gather, compress and deliver AG to the Gbaran CPF through a 16" x 35 km pipeline for further compression and treatment before being delivered into the domestic pipeline to the Bayelsa IPP or to NLNG export line. The installed line will also provide evacuation route for the next phase of the AG projects at Ahia, Rumuekpe, Mini-Nta and Ubie

Adibawa AGS project execution commenced in 2010. The project is 95% complete and is scheduled for first gas in Q1 2016.

Utorogu/Ughelli West & East

These projects were divested in 2012 and are no more in the AGS-1 portfolio of projects.

Expenditure phasing

Table 2 shows the expenditure phasing for the projects.

Table 2, Forward looking Expenditure phasing for the AGS-1 projects (SS) Shell share

GIP Phasing	2014 & Prior	2015	2016	2017	Total
Capex (OP15)	179.0	25.6	23.1	5.4	**233.1**
Total Capex (Lifecycle EAC)	179.0	25.6	23.1	4.8	**232.5**

Section 2: Value Proposition and Strategic and Financial Context

The primary objectives of the AG Solutions project among others include:

- Maintaining economic production and license to operate (LTO) through compliance with statutory requirements
- Securing Developed reserves
- Complying with Group policy on Green House emission
- Enabling Maturation/booking of reserves
- Securing Revenue/Income
- Maintaining JV Reputation
- Alignment with Stakeholders Aspiration

Specifically the implementation of this project will also enable continued production of up to 25 Kbopd, secure surface assets that could enable further growth in the affected field to fully cream off approximately 294 MMboe of expectation reserves.

Summary Economics-

The economics evaluation for AGS1 was carried out on forward-look basis using latest estimates cost as provided by the project team.
Sensitivities were also carried out on the following

- High Capex (P90)
- Low Capex(P10)
- High Opex (P90)
- High Reserves (P10)
- Low Reserves (P90)
- Full Life Cycle

The results indicate that the project is robust in the base case and the Full life Cycle Compared to the Previous GIP. This is because of the increase in PSVs and Gas prices since 2009, Lower flare charge and Capex effects due to sunk costs in the past.

Table 3: Economics Grid (Shell Share RT16)

PV Reference Date: 1/07/2016	**NPV (S/S $ mln)**		**VIR**	**RTEP**	**UTC (RT $/boe)**		**Payout-Time (RT)**	**Maximum Exposure (AT)**
Cash flow forward from: 01/01/2016	**0%**	**7%**	**7%**	**%**	**0%**	**7%**	**yyyy**	**$ mln (YYYY)**
Base Case								
SV-RT ($60/bbl RT16)	701.0	243.0	8.02					2.7 (2016)
RV-RT ($80/bbl RT16)	923.1	316.5	10.45	>50	0.66	1.30	2016	2.4 (2016)
HV-RT ($100/bbl RT16)	1125.7	380.2	12.55					1.8 (2016)
Sensitivities (on base case RV-RT16)								
High Capex (P90)		316.2	10.07					3.2 (2016)
Low Capex (P10)		316.6	10.60					2.2 (2016)
High Opex (P90)		316.3	10.44					2.5 (2016)
High Reserves (P10)		350.8	11.58					2.1 (2016)
Low Reserves (P90)		271.9	8.98					2.7 (2016)
Otumara/Saghara AGS		247.0	9.31					0.8 (2016)
Bonny AGS		46.7	NA					NA
Adibawa AGS		22.8	6.08					2.3 (2016)
Full Life Cycle		266.1	0.82					103.2 (2014)

Table 4: Key Project Parameter (SS) Shell share MOD

	Unit	Bus Plan BP15	Low	Mid	High	Comments
Capex (MOD)	US$ mln	NA	22.2	22.4	23.3	No approved budget for amount it includes US$22.4mln (SS) re-allocated amount from other projects. Amount carried is remaining spending to finish project
Opex (MOD)	US$ mln	NA	32.6	33.6	35.6	SCD and Operating Opex pf US$2.6mln per year
Production volume	Mmboe	NA	292.3	100.8	388.8	
On-stream Date	mm/yyyy	Mar-16	NA	Mar-16	Mar-17	Project can not have sooner upstream date given level of execution and funding

Economics Assumptions:

- Oil Short term PSVs of $60/bbl@MOD in 2016, $70/bbl@MOD in 2017, $80/bbl@MOD in 2018, $80/bbl@MOD in 2019, with applicable offset applied. RV-RT16 price used from 2020 onwards
- 2015 Nigerian Gas Master Plan (NGMP) gas price profile RV-RT2016 was applied.
- Gas taxed under CITA with Associated Gas Framework Agreement (AGFA) incentive.
- Flare Fee of 10 Naira/mscf non-tax deductible
- Gas Heating Value (GHV) of 1000 Btu/scf for gas supply to domestic market.
- Education Tax of 2% assessable profit.
- NDDC levy 3% of total expenditure
- Abandonment cost of 10% of RT CAPEX

Section 3: Risks, Opportunities and Alternatives

Risks

The following principal risks were associated with the previous GIP, and also apply to this GIP, however many of them have been substantially mitigated

- **Funding:** Funding challenge was mitigated by putting in place a ring-fenced portfolio funding arrangement with JV partners.
- **Security and Social Performance**: the project witnessed significant disruptions at the beginning, due to the state of insecurity in the Niger Delta. This was mitigated with robust security plans. Community contractors and local labour were employed, and GMoU were agreed to manage local interfaces. Full compliance with the corporate security plans for operating in the field and all other mitigating actions will continue to apply under this GIP
- **Nigerian Content Act:** This Act was passed after EPC Contracts were awarded. This led to a substantial review of execution plans, which took into consideration the requirements under the Act.

Opportunities

The following opportunities were presented;

- Nigerian Content: Due to the involvement of local Contractors; Local fabrication capacity has been bolstered.
- Employment opportunity was created for hundreds of local personnel.

Alternatives considered

No feasible alternative is considered at this stage of project development.

Contingencies

Cost: P50 contingency percentage of between 14 - 18% was used for this project; this was derived using the probabilistic cost risk analysis.

Section 4: Corporate structure, and governance

This project fits within the existing SPDC JV corporate structure and governance, with SPDC as operator.

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 PTP/O/ND is managing the project. The Project assurance plan is compliant with the ORS stipulations with project specific DRB, DE and BOM in place. The project has progressed through the VAR process with ESAR and VAR 4 held in May/June 2007 respectively. All the recommendations from ESAR and the High urgency / High Importance recommendations from VAR 4 were closed out and the project passed DG 4 in October 2007. A Project Execution Review (PER) was conducted for Otumara AGS project in September 2013. A pre-start up audit was conducted for Otumara AGS project in May 2015

Section 7: Budget provision

This AG Solutions project budget has been approved by the JV Partners, as part of the Domestic Gas Projects. The projects have been fully resourced since inception till date. Funding for this project in 2016 and 2017 is captured in OP15 Firm Plan.

Section 8: 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$ mln	Pre FID	2016	2017	2018	2019	2020	Post 2020
Total Commitment	1.7	13.3	5.3	2.2	0.0	0.0	0.0
SCD OPEX	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Pre-FID	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cash Flow							
Capital expenditure	0.0	13.0	5.3	2.2	0.0	0.0	0.0
Cash Flow from Operations	0.0	75.0	82.1	110.5	127.8	149.0	6616.1
Cash Surplus/(Deficit)*	0.0	62.0	76.8	108.3	127.8	149.0	6642.6
Profit and Loss							
NIBIAT +/-	-1.1	87.9	77.1	113.0	126.4	149.2	6614.2

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 is being financed with JV funding and shell share of the 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 Associated Gas Frame Agreement (AGFA).
There is the possibility that the project will be affected by Petroleum Industry Bil (PIB), in which case AGFA will not be applicable. The effect of this risk has been evaluated in the economics.

Section 12: Key Parameters

This IP seeks approval for further Shell Equity Investment of US$22.4mln (Shell Share) 50/50 MOD. Previously, US$222.1mln ((Shell share) 50/50, MOD was approved which is now almost fully spent. With this proposal, total Shell Equity Investment in the project becomes US$ 244.5mln (Shell Share) 50/50 MOD of which US$210.7mln is sunk cost. The additional amount requested is 10.1% of the previously approved GIP

Section 13: Signatures
This Proposal is submitted for approval

Supported by:

.....

Guy Janssens - FUI/OG
Date ..../..../.....

Initiator: _____

Toyin Olagunju - PTP/O/N
Date …/…./….

For shareholder approval:

.....

Markus Droll - UPO/G

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