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 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 US$26.7mln (Shell share) 50/50 MOD. The sum of US$222.1mln (Shell share) 50/50, MOD was previously approved consisting of US$210.3mln Capex and Opex $11.8mln. With this proposal, total investment becomes US$248.8mln (Shell share) 50/50, MOD of which US$223.5mln is sunk cost
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.

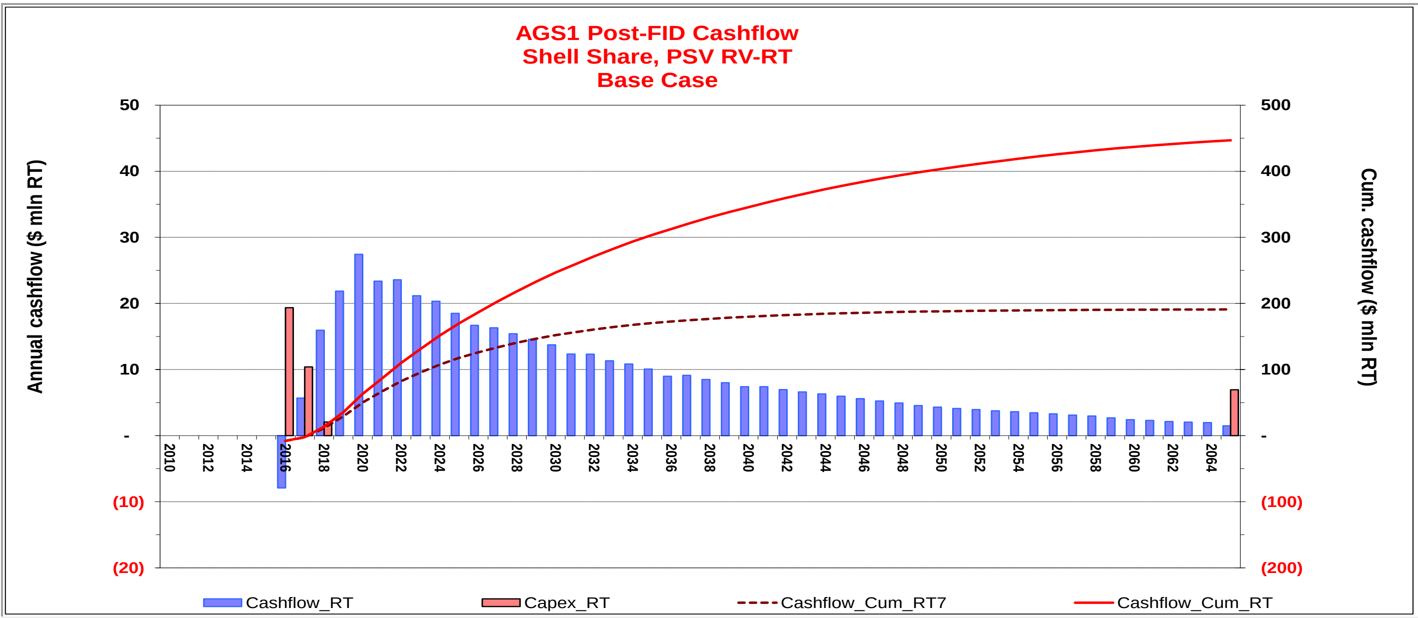
Main Commitments $USD mln (MOD)

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	534.6	56.2	327.6	98.3	590.9	177.3
Adibawa	117.4	127.6	10.8	21.0	6.3	138.4	41.5
Bonny	97.6	57.1	0.0	(40.5)	(12.1)	57.1	17.1
Utorogu, Ughelli East & West	108.1	0.0	0.0	(108.1)	(32.4)	0.0	0.0
Contingency	114.8	0.0	7.5	(107.3)	(32.2)	7.5	2.3
SCD Opex	17.9	4.4	9.7	(3.8)	(1.1)	14.1	4.2
Total Capex + Opex (Post FID)	**719.1**	**723.8**	**84.3**	**88.9**	**26.7**	**808.0**	**242.4**
Pre-FiD Expenditure	21.2	21.2	0.0	0.0	0.0	21.2	6.4
Total Expenditure (50/50)	**740.3**	**744.9**	**84.3**	**88.9**	**26.7**	**829.2**	**248.8**
Overrun Allowance to 90/10 MOD	0.0	0.0	11.0	11.00	3.30	11.0	3.30
TOTAL (90/10 MOD)	**740.3**	**744.9**	**95.3**	**99.9**	**30.0**	**840.2**	**252.1**

Note: Negative amounts represent funds allocated to other projects.

The Estimate to Completie is from April 2016 to 2018

Summary Cash Flow



Summary Economics

At Ranking PSV ($80/bbl RT16)	NPV7% ($m)	VIR7%
Base Case	190.9	6.19*
Full life cycle	105 .4	0.34

*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 the year 2012 in compliance with with Shell Group and Nigerian Government's aspirations to discontinue routine flaring as part of oil production activities.

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 with OSD dates of Sept. and July 2016 respectively. During the execution of the projects, some changes occurred, which affected the project schedule and resulted in a net increase in 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 – See waterfall in Appendix 1 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 31% growth on the approved GIP.
- **Owners cost**: growth in owners cost due to prolonged site works and additional resources needed to manage the complex logistics, HSE exposures and domiciliation of works in-country.

Adibawa also suffered EPC Award cost growth further growth due to requirement to adapt the Industry Standard Design (Canadian Standards) basis at GIP to Shell DEP basis.

Expenditure phasing

Table 2 shows the remaining expenditure phasing for the projects.

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

GIP Phasing (Shell share)	2016	2017	2018	TOTAL
Capex (OP15)	23.1	5.4	0.0	**28.5**
Total Capex (Forward looking)	19.4	10.6	2.1	**32.1**

- The CAPEX (Forward looking) for 2016 to 2018 is captured in OP16 submission.
- In 2014, Idle time/Standby costs arising from the Otumara scope of AGS1 was USD $4.8mln (100%), out of this amount USD $4.2mln occurred outside 14 days for which the Shell Share amounting to USD $1.3mln was written to P&L.

Section 2: Value Proposition and Strategic and Financial Context

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

- Maintaining economic production of 177 Mmboe from the fields beyond 2016 and license to operate (LTO) through compliance with statutory requirements to secure revenue/income
- Enabling Maturation/booking of reserves for a further 75MMboe of further oil development.
- Complying with Group policy on Green House emission.
- Maintaining JV Reputation and aligning with Stakeholders Aspiration.

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 however the project does not meet the VIR threshold for the Full life (but still better than the 2009 GIP). The Base case is robust because of the increase in PSVs and Gas prices since 2009, Lower flare charge and Capex effects due to sunk costs in the past. (See Table 3)

This opportunity is most sensitive to reserves, as shown in the Tornado plot in chart 2 below while not as sensitive to CAPEX and OPEX due to spend in the past. Therefore, focus should be on realization of estimated reserves.

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								
LV-RT ($40/bbl RT16)	235.1	102.5	3.32	>50	1.34	2.00		
SV-RT ($60/bbl RT16)	350.6	156.9	5.08	>50	1.34	2.00		
RV-RT ($80/bbl RT16)	446.7	190.9	6.19	>50	1.34	2.00	2016	0.03(2016)
HV-RT ($100/bbl RT16)	552.5	232.2	7.52	>50	1.34	2.00		
BEP					NA	NA		
Sensitivities (on base case RV-RT16)								
High Capex (P90)		190.7	5.99					
Low Capex (P10)		191.1	6.30					
High Opex (P90)		189.8	6.15					
High Reserves (P10)		233.1	7.55					
Low Reserves (P90)		148.8	4.82					
Otumara/Saghara AGS		170.7	6.24					
Bonny AGS		19.3	NA					
Adibawa AGS		0.9	0.27					
Full Life Cycle		105.4	0.34	12.3				

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

Parameter	Unit	Bus Plan (RV)	Low	Mid	High	Comments
Capex (MOD)	US$ mln	22.4	22.0	22.4	23.1	
Production Volume	mln boe	53.1	42.5	53.1	63.7	
Start Up Date		Sep-16	Nov-16	Sep-16	NA	Project cannot have a P10 start date given maturation
Opex	US$ mln	33	6.7	8.4	10.1	SCD of 0.87mln Year on Year

Chart 2: Cash-flow Plot AGS1 (FLC)

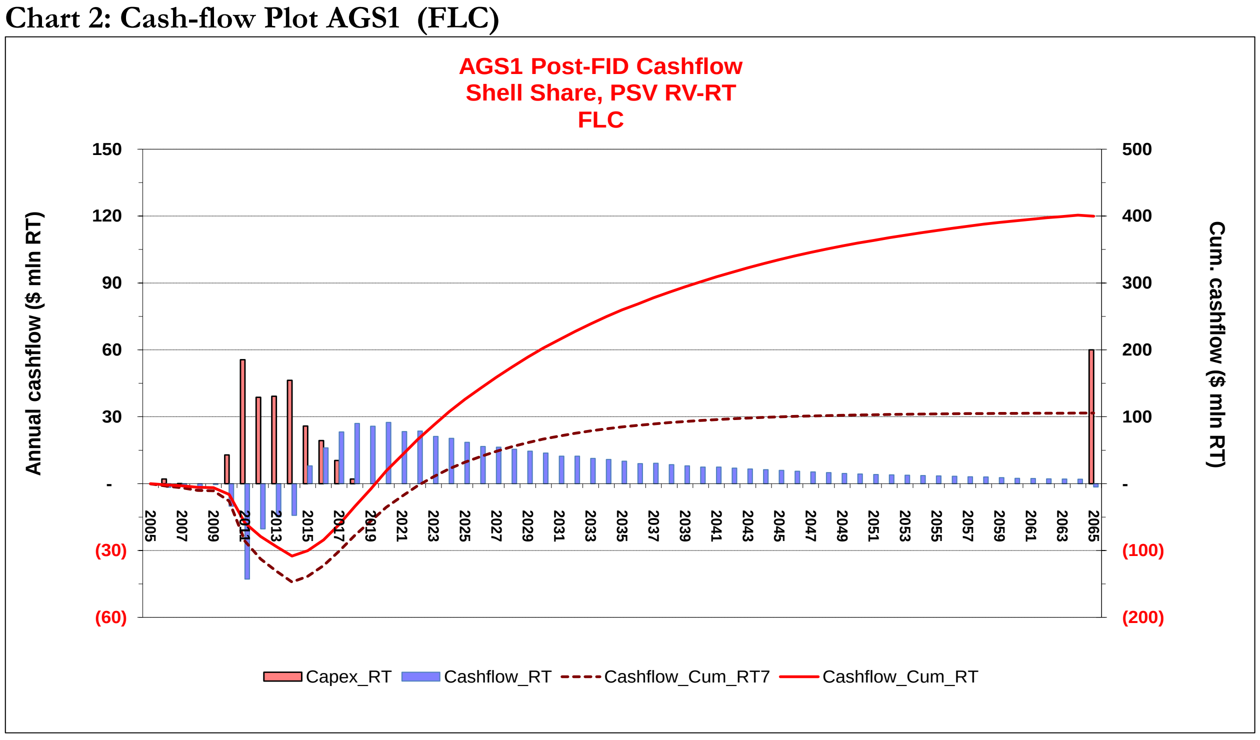
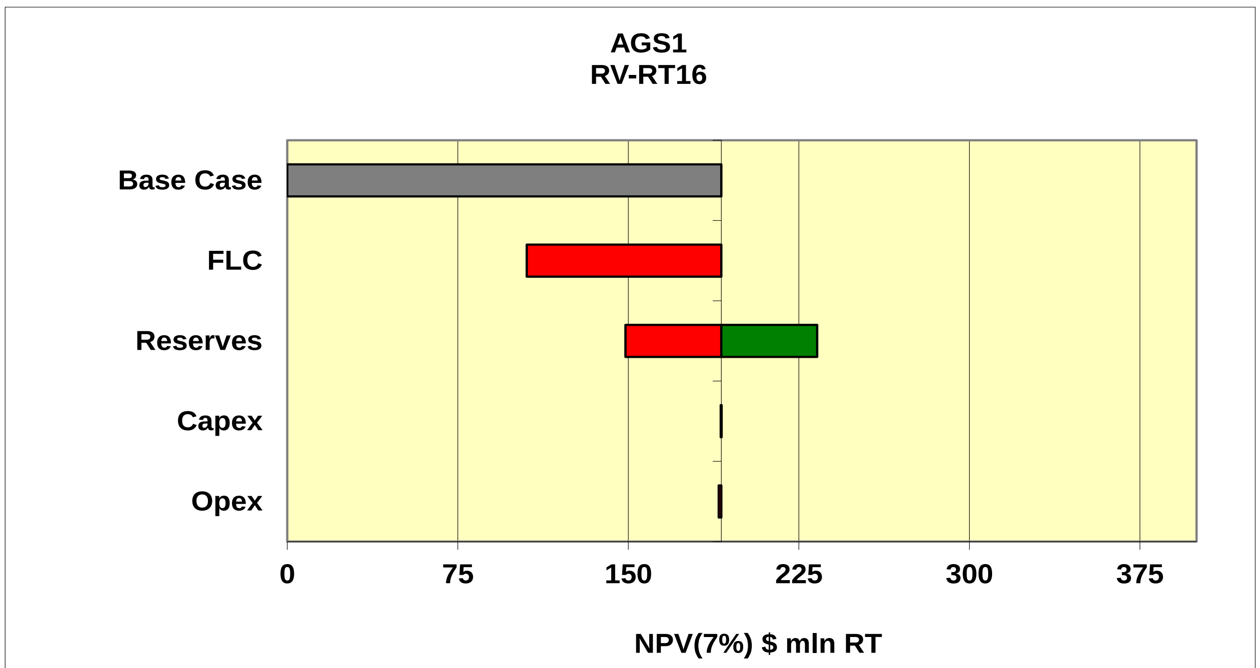
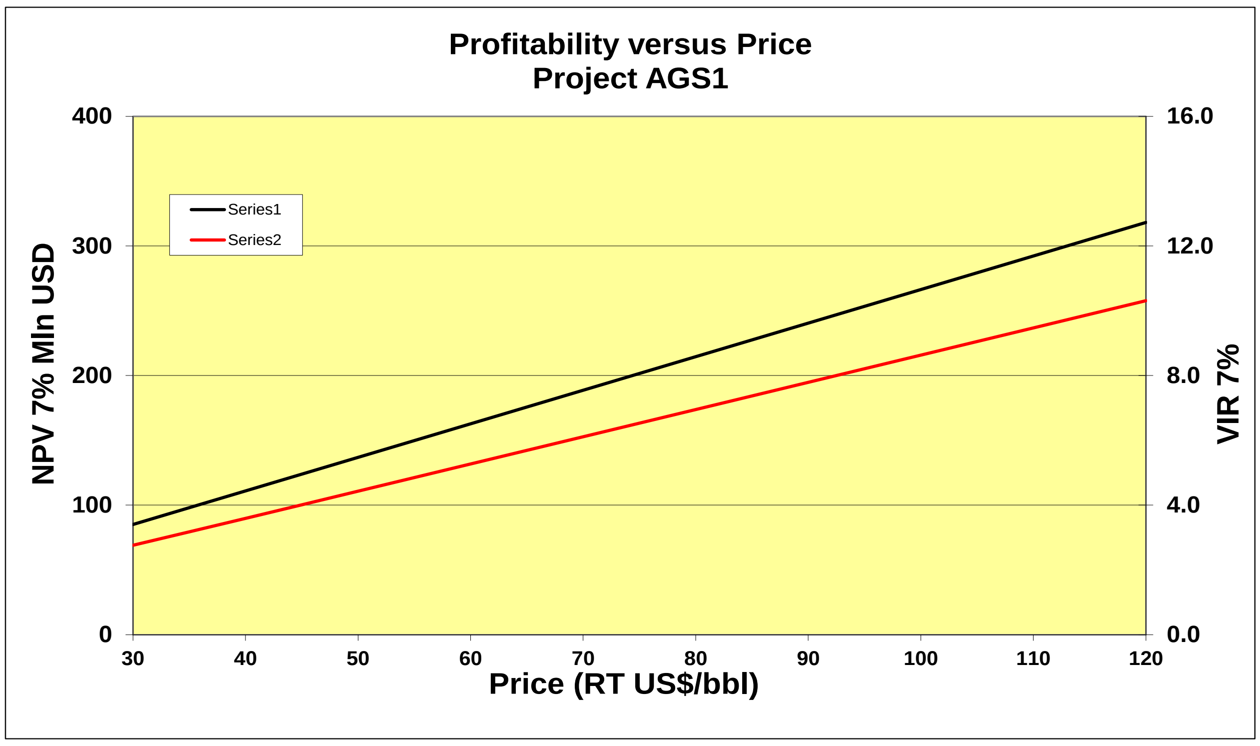


Chart 3 Tornado Chart AGS1





Economics Assumptions:

- Oil Short term PSVs of $42.5/bbl@MOD in 2016, $50/bbl@MOD in 2017, $60/bbl@MOD in 2018, $60/bbl@MOD in 2019, with applicable offset applied. RV-RT16 price used from 2020 onwards
- 2016 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. However, low oil price is putting pressure on Governments ability to meet their funding obligations.
- **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. There however, remains a risk that OEM Commissioning activities may be impacted by security concerns in the Niger Delta which is prone to volatility.
- **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. There is an electricity interdependency scope to tie the host communities power supply needs to the plants power generation which will be the main focus post plant start-up.

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 the 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	2016	2017	2018	2019	2020	Post 2020
Total Commitment	14.0	10.6	2.1	0.0	0.0	0.0
SCD OPEX	0.0	0.0	0.0	0.0	0.0	0.0
Pre-FID	0.0	0.0	0.0	0.0	0.0	0.0
Cash Flow						
Capital expenditure	14.0	10.6	2.1	0.0	0.0	0.0
Cash Flow from Operations	41.7	64.8	75.3	94.2	126.7	2941.5
Cash Surplus/(Deficit)*	27.8	54.2	73.2	94.2	126.7	2964.6
Profit and Loss						
NIBIAT +/-	48.0	63.8	72.0	92.9	128.0	2936.1

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 Bill (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$26.7mln (Shell Share) 50/50 MOD. Previously, US$222.1mln ((Shell share) 50/50, MOD was approved which is now fully spent. With this proposal, total Shell Equity Investment in the project becomes US$ 248.8mln (Shell Share) 50/50MOD of which US$223.5mln is sunk cost. The additional amount requested is 12% of the previously approved GIP at 50/50.
(and 13.5% at 90/10).

Section 13: Signatures
This Proposal is submitted for approval

Supported by:

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

For shareholder approval:

....

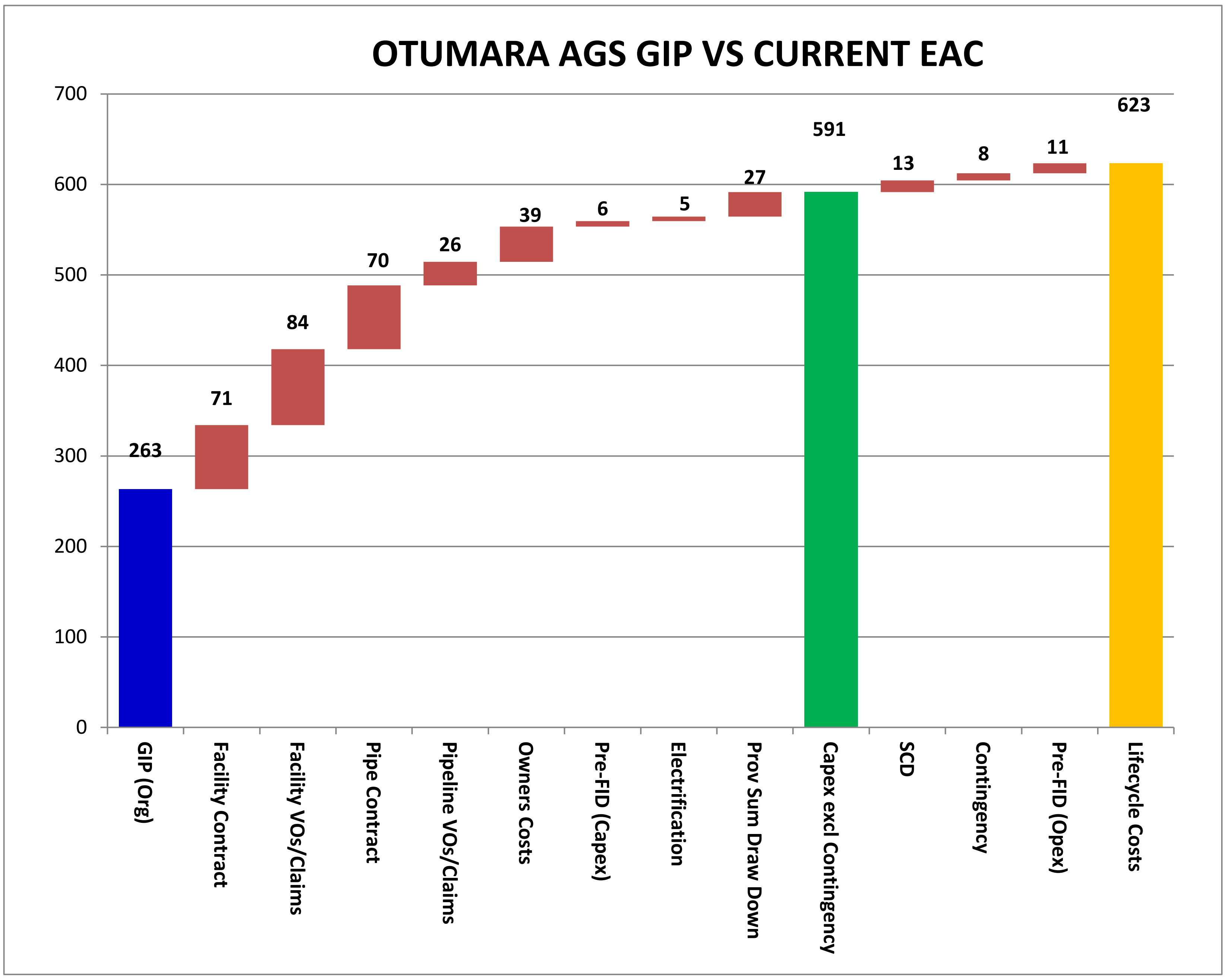
Markus Droll - UPO/G

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

Initiator: ________________

Toyin Olagunju - PTP/O/N
Date .../..../....

Appendix 1 – Otumara AGS Cost Growth - (100% USD $mln);



Appendix 2 – Adibawa AGS Cost Growth – (100% USD $mln)