

REPUBLIC OF MOZAMBIQUE

## Projected government revenues from gas projects



REPÚBLICA DE MOÇAMBIQUE  
MINISTÉRIO DA ECONOMIA E FINANÇAS

## Disclaimer, terms and conditions of use

- *This document (the “Document”) has been prepared by the Ministry of Economy and Finance of the Republic of Mozambique (the “Republic”) with the assistance of the Instituto Nacional De Petróleo (“INP”), its financial advisor Lazard Frères SAS and legal advisor White & Case LLP (together, the “Advisors”) for the attention of the Republic’s creditors (each a “Recipient”) in order to provide them with information on expected government revenues from gas projects (the “Purpose”).*
- *While the Republic has used all reasonable efforts to ensure that the factual information contained herein is correct, accurate and complete in all material respects at the date of publication, neither the Republic, nor any of the Advisors, nor any of their respective related or affiliated bodies, or entities, nor their or their affiliates’ respective stakeholders, directors, partners, officers, employees, advisers or other representatives, if any (the “Mozambique Parties”), make any warranty or representation, expressed or implied, concerning the relevance, accuracy or completeness of either the information or the analyses of information contained herein or any other written, oral or other information made available to any Recipient in connection therewith including, without limitation, any historical financial information, the estimates and projections, and any other financial information, and nothing contained in this Document is, or may be relied upon as, a promise or representation, whether as to the past or the future. Except insofar as liability under any law cannot be excluded, the Mozambique Parties shall have no responsibility arising in respect of the information contained in this Document or in any other way for errors or omissions (including responsibility to any person by reason of negligence).*
- *This Document does not purport to be all-inclusive or to contain all the information that a Recipient may require in its assessment of the Purpose. Further, this Document has not been prepared with regard to the investment objectives, financial situation and particular needs of the Recipient. No Recipient is thus entitled to rely on this document for any purpose whatsoever and any Recipient should conduct their own independent review and analysis of the information contained in or referred to in this Document and consult their own independent advisers as to legal, tax and accounting issues when assessing the Purpose. The information in this presentation reflects conditions, including economic, monetary and market prevailing as of June 2018, all of which are subject to change.*
- *This Document may contain certain forward-looking statements, estimates, targets and projections prepared on the basis of information provided by the Republic. Such statements, estimates and projections involve significant subjective elements of judgment and analysis which may or may not prove to be correct. There may be differences between forecast and actual results because events and circumstances frequently do not occur as forecast and these differences may be material. There can be no assurance that any of the estimates, targets or projections will be met. Accordingly, none of the Mozambique Parties shall be liable for any direct, indirect or consequential loss or damage suffered by any person as a result of relying on any statement in or omission from this Document and any such liability is expressly disclaimed.*

## Disclaimer, terms and conditions of use

- *This Document has been prepared exclusively for information purposes. Neither this Document nor any information contained therein does or will not form part of any legal agreement that may result from the review, investigation and analysis of this Document by its Recipient and/or the Recipient's representatives. Neither this Document nor the information contained therein does constitute any form of commitment, recommendation or offer (either expressly or impliedly) on the part of any Mozambique Parties with respect to the Purpose. The Republic reserves any rights it may have in connection with any of its debt obligations and nothing contained in this Document shall be construed as a waiver or amendment of such rights.*
- *The provision of this presentation: (i) does not place any Mozambique Party under any obligation to provide any further information or to update this presentation or any additional information or to correct any inaccuracies in any such information which may become apparent; and (ii) does not place any Mozambique Party under any obligation to review the condition or affairs of the Republic or advise the recipient in respect of any information about the Republic.*
- *Without prejudice to liability for fraud, each Mozambique Party disclaims any liability to any person. Any person considering any action: (i) may not rely on this presentation in determining any course of action in relation to the Republic or otherwise; and (ii) must seek its own independent financial advice. Without prejudice to liability for fraud, each Mozambique Party disclaims any liability which may be based on this presentation or any other written or oral information provided in connection therewith and any errors therein and/or omissions therefrom.*

## Table of Contents

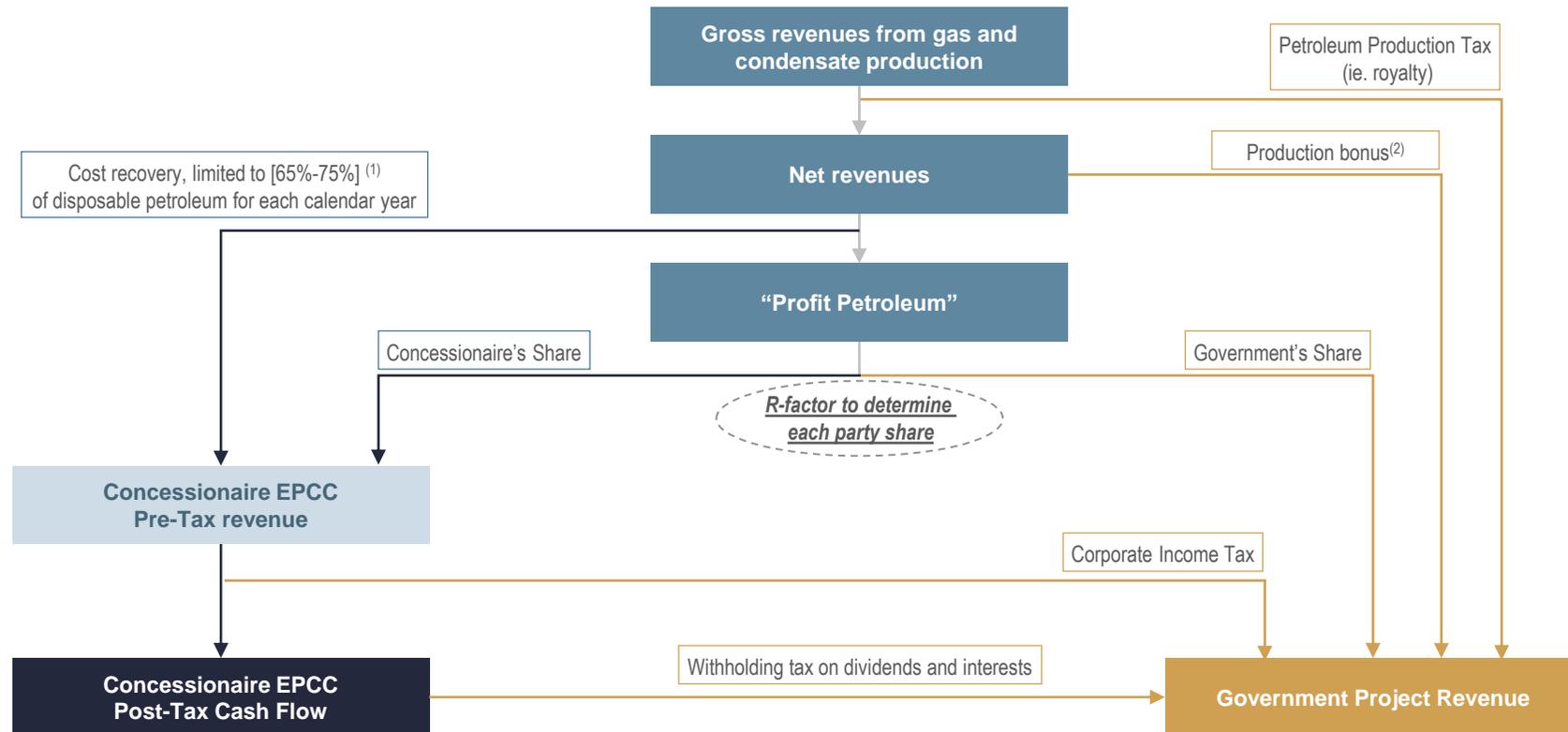
I	CONCESSION AGREEMENTS AND FISCAL FRAMEWORK	2
II	PROJECTED GOVERNMENT REVENUES UNDER DIFFERENT PRICE ASSUMPTIONS	5
III	CONTINGENCY SCENARIO	9



# **I Concession agreements and fiscal framework**

# Breakdown of government revenues from the LNG projects

Projects gross revenues water fall is determined in the Concession Agreements:



Government revenues are distributed between 5 “key” elements: (i) royalties (i.e. petroleum production tax), (ii) production bonus, (iii) government’s share of profit petroleum, (iv) corporate income tax, and (v) withholding tax on dividends and interests

Note: (1) Ceiling on cost recovery can vary from a Concession Agreement to another  
 (2) Payments in relation to the production bonus only take place in the first couple of years of production, as this is a one-time payment every time the production capacity reaches and additional tranche of production. The bonus amount is not significant, and this payment is below USD 140 million for both projects between 2022 and 2024

## Government revenues are projected to increase gradually during the projects lifetime

The Concession Agreements negotiated between the concessioners and the government allows the concessionaires to recover their investment costs upfront. Hence revenues to the government from the projects are limited during the period of cost recovery

- **Petroleum production tax (ie. royalty)**
  - Royalty rates are fixed at c.2% and c.3% of gross revenues for natural gas and condensate respectively (for production below 500m depth). The rates then increase by 2p.p. every ten years
- **Cost recovery mechanism**
  - The cost recovery mechanism allows the concessionaires to recover 65%-75% of net revenues (gross revenues minus royalties) every year until all past investments have been refunded. Once all capex have been recovered, only the opex and decommissioning capex can be recovered every year, significantly increasing the amount of profit petroleum available to be shared between the government and the concessionaires
- **Government profit petroleum share, based on the R-factor**
  - The R-factor is a cost recovery parameter that determines the distribution of the profit petroleum between the government and the concessionaires. It is calculated as the ratio of the concessionaire's cumulative cash inflows, net of operating costs and tax, to its cumulative capital expenditures
  - According to the agreement reached, the government's share would be between 10% and 15% and will gradually increase to values ranging between 55% and 60% as the R-factor increases
- **Corporate income tax**
  - The projects' related financial losses during the first years can be carried forward during 7 years
  - The standard income tax rate stands at 32%. However, an exemption was granted for the first 8 years of production with a rate set at 24%

R-factor	Gov. share	Concessionaire share
< 1	[10% - 15%]	[85% - 90%]
< 2	[20% - 25%]	[80% - 75%]
< 3	[30% - 35%]	[70% - 65%]
<4	[45% - 50%]	[55% - 50%]
> 4	[55% - 60%]	[45% - 40%]

ENH, as a project concessionaire, is not expected to generate any dividend to the government during the first years of the projects lifetime. Initial ENH revenues from the gas projects would serve primarily to reimburse the company's debt in relation to the equity carry financing during the exploration and construction phase. ENH's ability to generate dividends in the medium term will mostly depend on its ability to refinance its carry

# Petroleum production profile

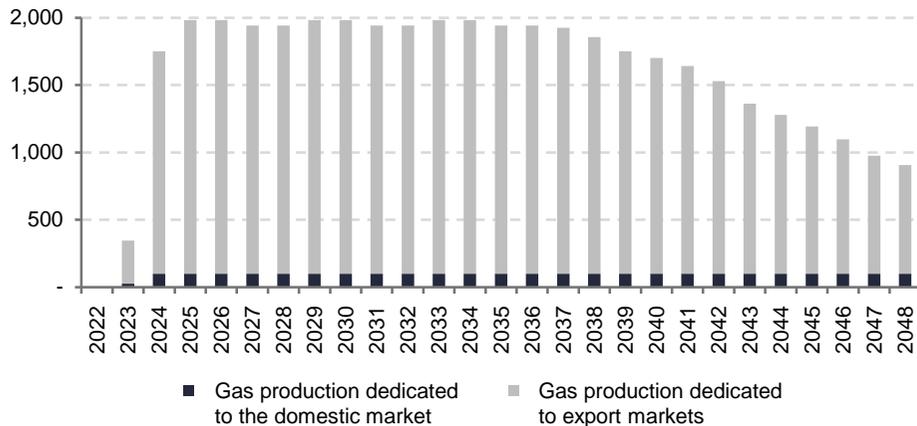
Production is expected to start in Q4 2022 and Q4 2023 for Area 4 and Area 1 respectively. Projects should reach full production capacity from year 2 of production. Area 1 production capacity is expected to be four times bigger than Area 4

## Area 1

- Concession period: 2007 - 2048
- FID expected for Q1 2019
- Construction period of 5 years
- **Start of production expected for Q4 2023**
- **Production profile** (average values during the project lifetime)
  - Export gas: **c. 1,550 mmscf/d**
  - Domestic gas: **c. 100 mmscf/d**
  - Condensate export: **c. 600 bbl/d**
  - Condensate domestic: **c. 9,000 bbl/d**

### Area 1 gas production profile <sup>(1)</sup>

MMSCF/D<sup>(2)</sup>

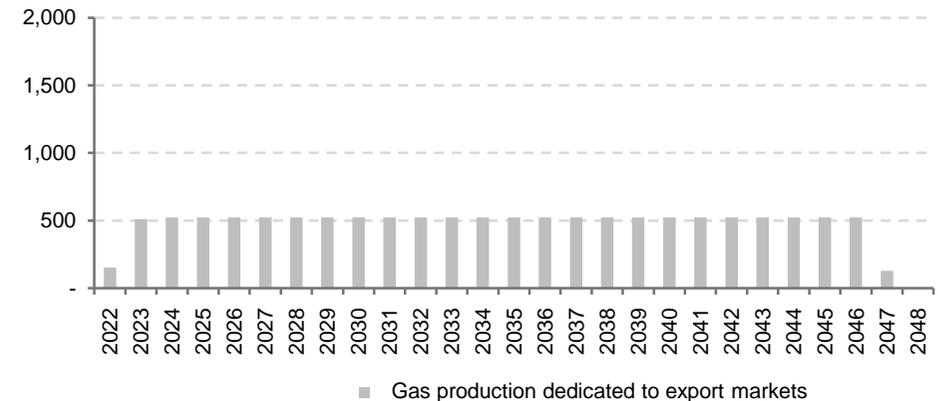


## Area 4

- Concession period: 2006 - 2047
- FID reached on the Coral South FLNG Project on Nov. 2017. FID on onshore projects expected for 2018-2019
- Construction period of 5 years
- **Start of production expected for Q4 2022**
- **Production profile** (average values during the project lifetime)
  - Export gas: **c. 500 mmscf/d**
  - Domestic gas: -
  - Condensate export: -
  - Condensate domestic: **c. 3,300 bbl/d**

### Area 4 gas production profile <sup>(1)</sup>

MMSCF/D<sup>(2)</sup>



Note: (1) Production profile only presents gas production, excluding condensate production  
 (2) Million Standard Cubic Feet per Day



## II **Projected government revenues under different price assumptions**

# Input price assumptions

The gas price in the model is based on the crude<sup>(1)</sup> oil price (LNG price being derived from it)

## Oil price forecast methodology in the baseline scenario

- **The baseline price relies on the Brent future projections until 2022**
  - The baseline scenario is based on the median brokers projection of the Brent price between 2018 and 2022, as presented on the table in the right
  - Prices are inflated at 2% per annum thereafter
- **LNG price is then deducted using the projects pricing mechanism**
  - Under the baseline oil price scenario, the average price of LNG during the projects lifetime is equivalent to US\$10.7 / mmbtu for Area 1 and US\$11.0 / mmbtu for Area 4
- **For modelling purposes, an upside and downside scenarios have been retained**, each one considering +/- US\$10/bbl for the Brent price projection compared to the baseline scenario, and respectively considering inflation rates of 2.5% and 1.5%

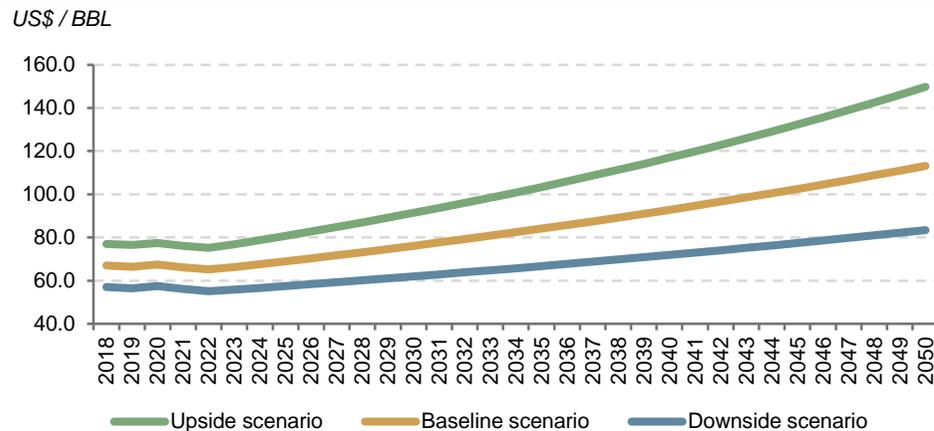
## Oil price market projections (Brent)

Consensus	2018	2019	2020	2021	2022
Median	67.0	66.5	67.5	66.1	65.1
Mean	67.1	66.6	67.6	67.5	65.6
High	74.0	81.0	102.0	80.0	85.0
Low	56.0	54.5	52.0	52.0	50.0
Forward	73.9	71.9	67.1	63.9	

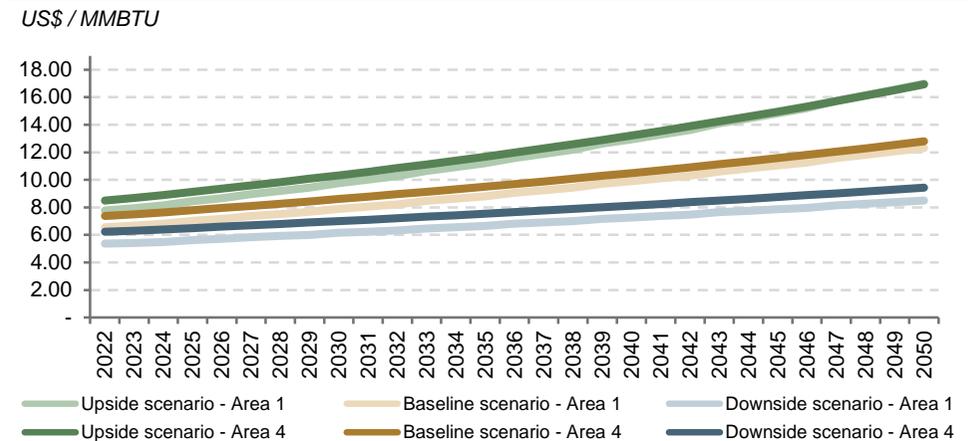
Source: Bloomberg, as of May 15<sup>th</sup> 2018

  Price profile to be used as baseline for modelling purposes

## Oil prices forecast considered for modelling purposes



## Resulting sale price of LNG



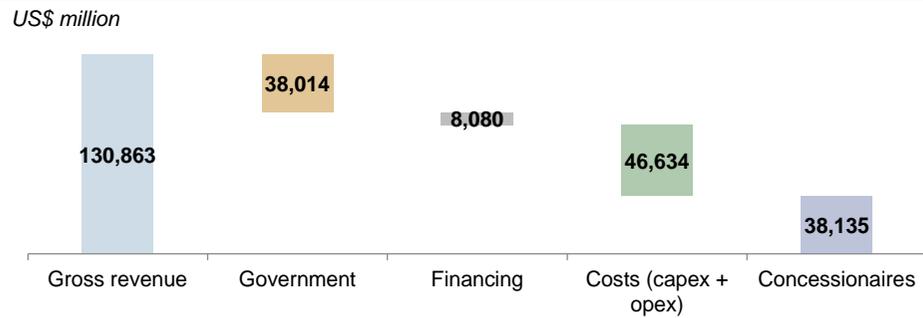
Note: An important underlying assumption is that LNG selling price follows market prices. It should be noted that final off-take agreements (which remain confidential) could include mechanisms that reduce possible upside in the event of a very high increase of Brent market prices (in parallel, such mechanism could also prevent from very low selling prices in case of a very high reduction of market prices)  
 (1) The price of crude considered is based on the Brent price

## Government revenues – *Baseline scenario*

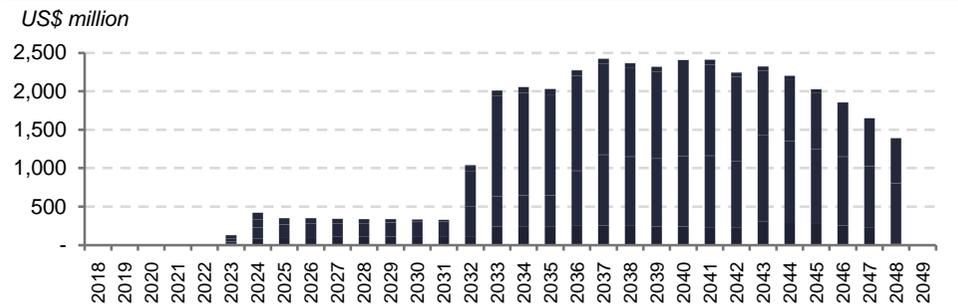
Under the baseline scenario, total government revenues would amount to US\$49.4 bn during the project lifetime. Revenues would significantly increase starting from 2032

### Area 1

Gross revenues distribution over the life of the project

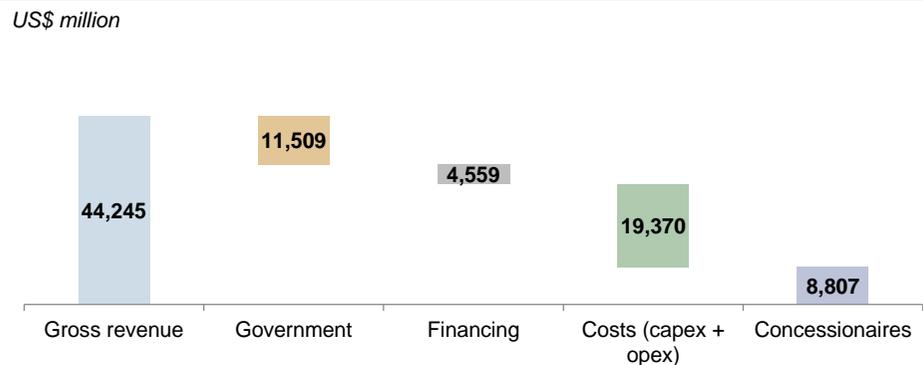


Government revenues over the project lifetime

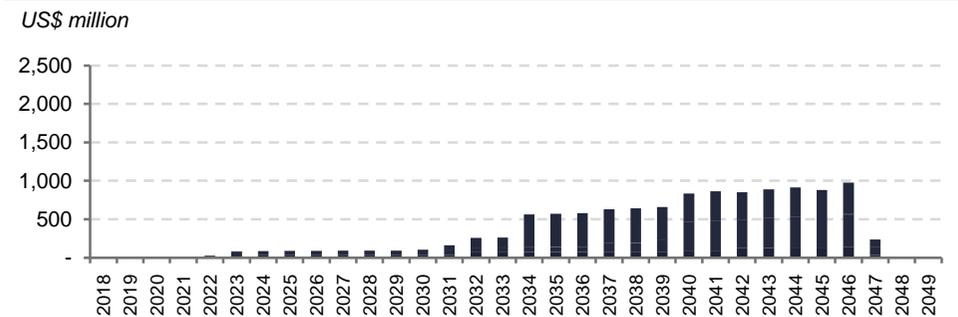


### Area 4

Gross revenues distribution over the life of the project



Government revenues over the project lifetime



Note: Financing costs refer to the concessionaires interest payments related to exploration and construction debt. Principal payments are captured in the capex costs.

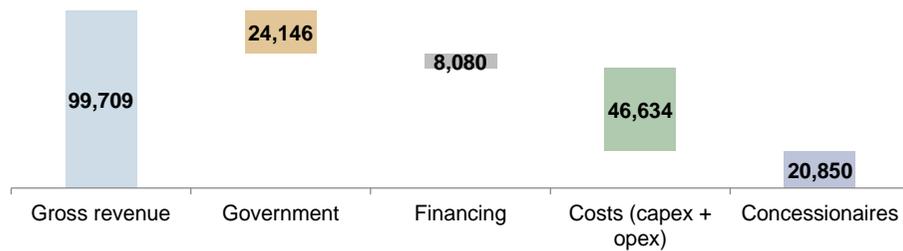
## Government revenues – *Downside scenario*

Under the downside scenario, total government revenues would amount to US\$35.0 bn during the project lifetime. Revenues would significantly increase starting from 2033

### Area 1

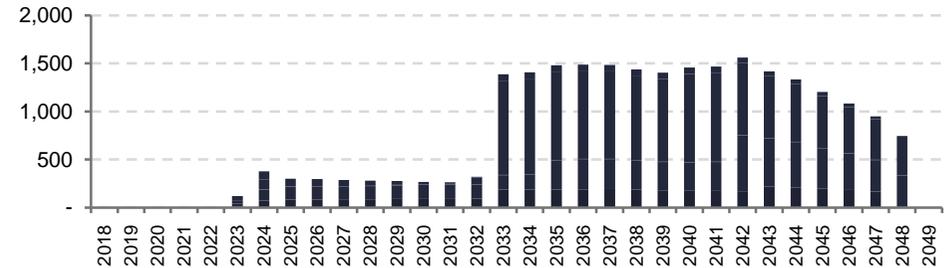
Gross revenues distribution over the life of the project

US\$ million



Government revenues over the project lifetime

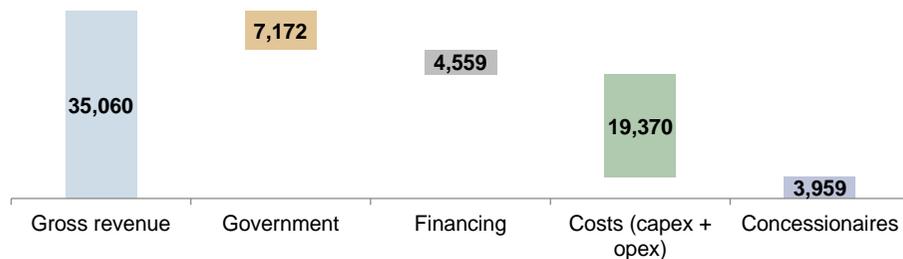
US\$ million



### Area 4

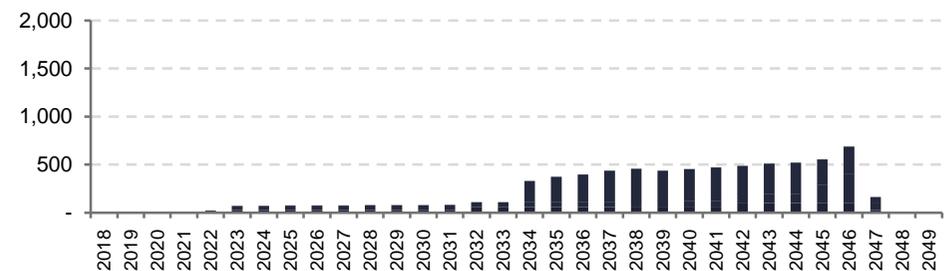
Gross revenues distribution over the life of the project

US\$ million



Government revenues over the project lifetime

US\$ million



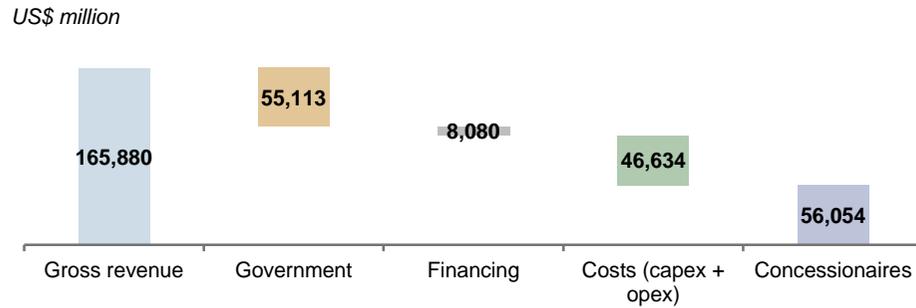
Note: Financing costs refer to the concessionaires interest payments related to exploration and construction debt. Principal payments are captured in the capex costs.

## Government revenues – *Upside scenario*

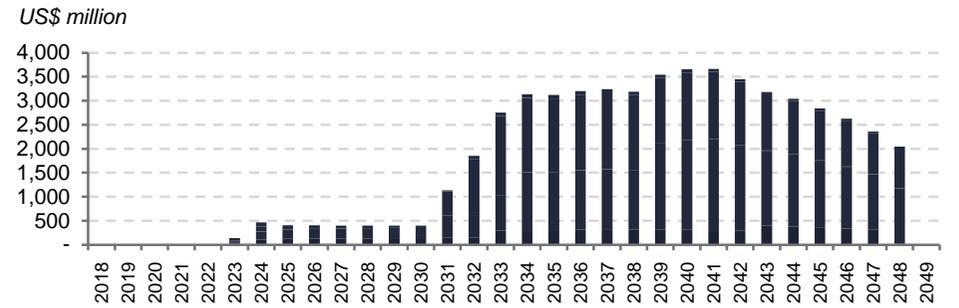
Under the upside scenario, total government revenues would amount to US\$63.6 bn during the project lifetime. Revenues would significantly starting from 2032

### Area 1

Gross revenues distribution over the life of the project

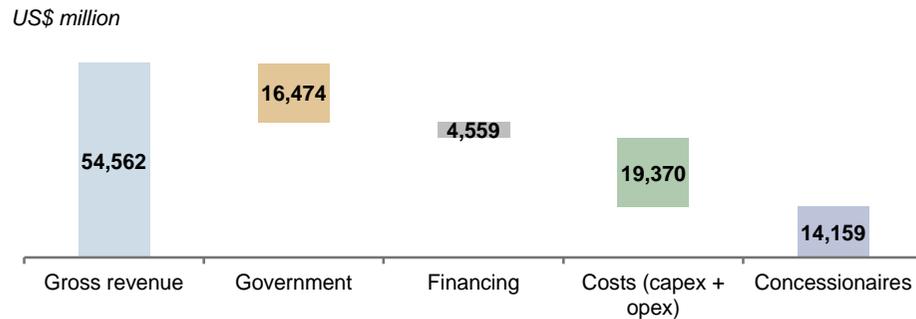


Government revenues over the project lifetime

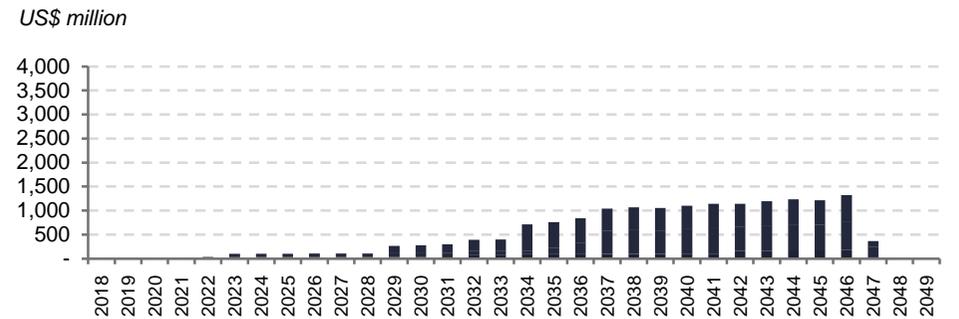


### Area 4

Gross revenues distribution over the life of the project



Government revenues over the project lifetime



Note: Financing costs refer to the concessionaires interest payments related to exploration and construction debt. Principal payments are captured in the capex costs.



### III Contingency scenario

## Contingency scenario considerations

A contingency scenario has been built, taking into consideration: (i) cost overruns and (ii) schedule delay

- According to Ernst & Young, “out of 365 projects analyzed with proposed capital investment of above US\$1bn in the oil and gas industry and across the project life cycle (ie. before and after the final investment decision), 78% of upstream megaprojects faced cost overruns or delays”
- Other sources, such as the Project Management Institute, confirm that a high proportion of oil and gas megaprojects: “more than 40% of capital offshore projects in excess of US\$1 billion overran budget by more than 10%”

### Contingency scenario parameters

	Magnitude	Rationale
Capex cost overruns	+ 20 %	<ul style="list-style-type: none"> <li>• Cost overruns are common in hydrocarbon (oil and gas) megaprojects</li> <li>• According to Ernst &amp; Young study, 65% of the projects analysed were facing cost overruns with an average escalation of 23% from the approved FID budget</li> </ul>
Delays in the start of production	Start of production 1 year later	<ul style="list-style-type: none"> <li>• Delays are also very common in hydrocarbon megaprojects</li> <li>• According to the Project Management Institute, one in eight major offshore developments with a capital expenditure ranging from US\$1 billion and US\$3 billion exceeded cost and/or schedule by 40%, or within the first year of operating were producing less than 50% of production capacity</li> </ul>

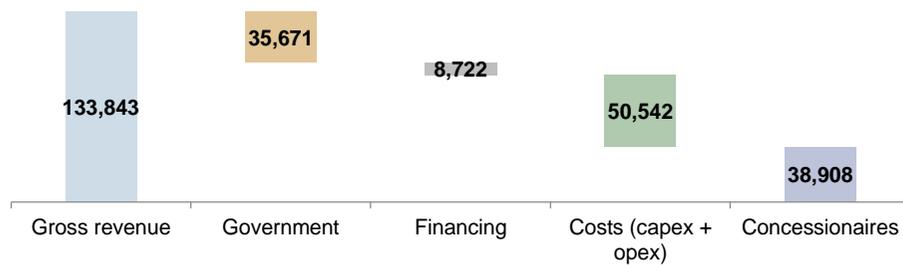
## Government revenues – *Contingency scenario*

Under the contingency scenario, government revenues would become sizeable with a delay of c.1.5 years compared to the baseline. In parallel, total government revenues during the projects life cycle would decrease by c.6%

### Area 1

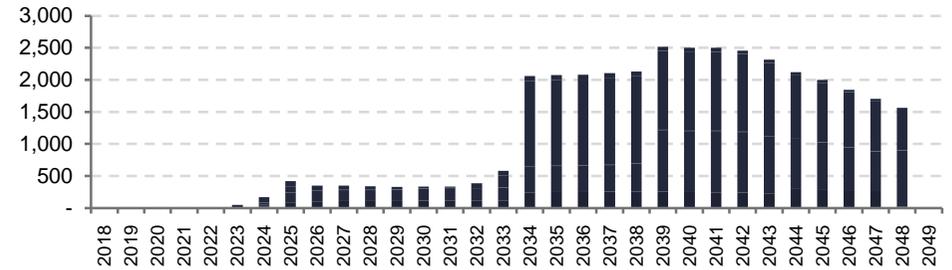
#### Gross revenues distribution over the life of the project

US\$ million



#### Government revenues over the project lifetime

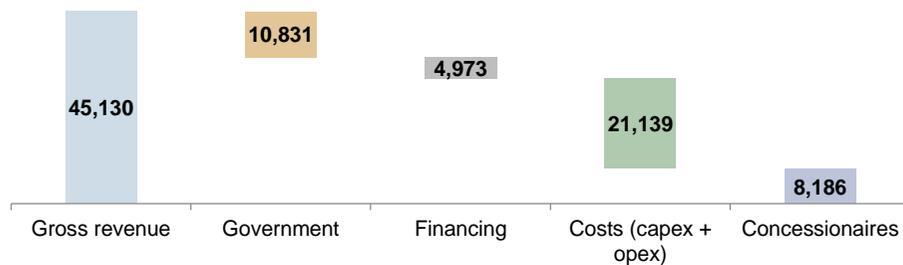
US\$ million



### Area 4

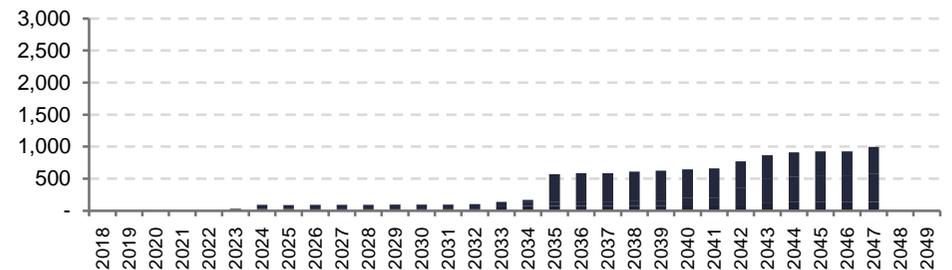
#### Gross revenues distribution over the life of the project

US\$ million



#### Government revenues over the project lifetime

US\$ million



Note: Financing costs refer to the concessionaires interest payments related to exploration and construction debt. Principal payments are captured in the capex costs.