

POTENTIAL REVENUES FROM ROVUMA:

Implications of the 2006 Contracts for Government Income

How much revenue will Mozambique get from natural gas in the Rovuma Basin? Some say as much as \$4-5 billion annually by the mid-2020s. But the producers of these projections, the Gas Master Plan and the IMF, are now backtracking. Realistic assumptions on the timing of first exports and pace of development suggest only about \$1.2 billion in 2026. And many additional deductions that will reduce company payments have yet to be taken into account.

I. Rovuma Reserves

The first question is whether Mozambique has sufficient gas. The answer is simple. Gas reserves in the Rovuma Basin make it among the richest finds in recent years. The Gas Master Plan estimates that there are 124tcf of reserves in the Rovuma Basin of which 75tcf are technically and commercially “recoverable.” Figure 1 illustrates where that figure would place Mozambique in the global ranking of natural gas reserves.¹ Although none of these finds have yet been independently certified (estimations to date are based on internal company analysis), there is no doubt that vast amount of commercially viable gas exists in the Rovuma Basin. The issue is not the amount of gas, but how much can be exported.

II. Rovuma First Exports

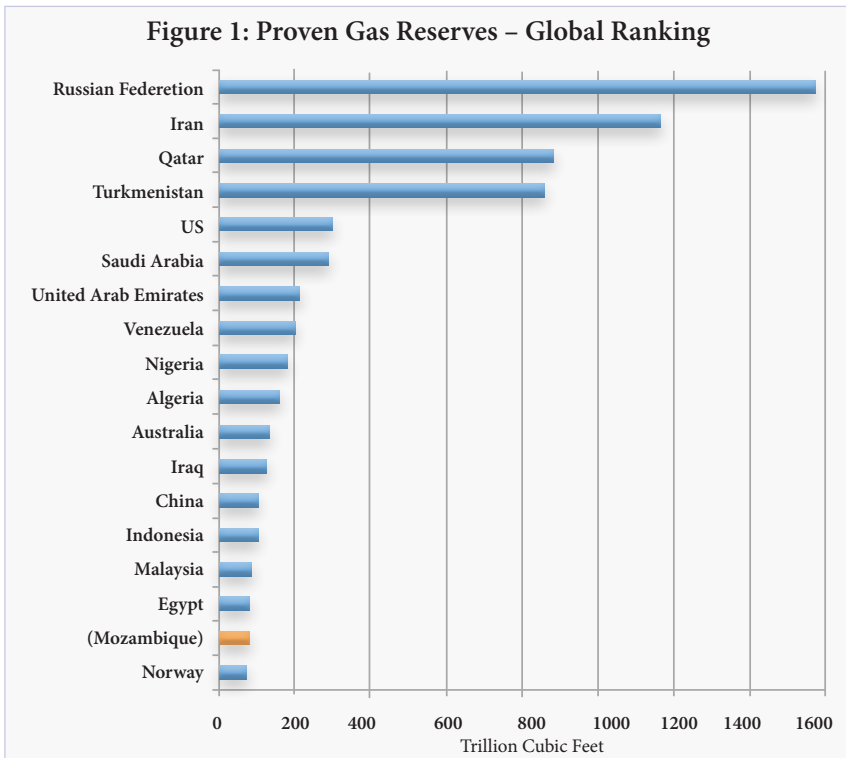
Projections of potential government revenue depend on the timelines for building LNG liquefaction plants the number of plants likely to be built. Unlike oil where production can begin at modest levels and ramp up or down depending on commercial considerations, LNG capacity is

modular. Until a full LNG plant is constructed, no gas can be exported.

LNG projects evolve along decade-long timescales. The graphic shown in Figure 2 provides an overview.² With the “resource base” established, the next big step is the Final Investment Decision – the formal commitment from the companies to invest in LNG production. Neither Anadarko nor ENI have yet made a Final Investment Decision to develop LNG in Mozambique.

At the current stage, multiple process are underway simultaneously, three of which are illustrated in Figure 2. Technical plans for the offshore wells and LNG plants are being prepared. Known as the “front end engineering and design” or FEED, these were contracted in December 2012. Given the scale of investment required, LNG is normally sold through long-term sales agreements before construction begins. Reports suggest preliminary negotiations are underway with Japanese utility companies. And as no investment decisions are taken on the basis of internal company analysis of reserves, independent study of the gas field data will also be commissioned.

Figure 1: Proven Gas Reserves – Global Ranking



Two further sets of negotiations are also taking place. First, according to the Petroleum Law, if a gas field crosses concession boundaries, as they do in the Rovuma Basin, companies must negotiate a unitization agreement establishing the terms for the common development of the field. Anadarko and ENI took one step in this direction by negotiating a “Heads of Agreement” in December 2012, but this marks the beginning not the end of the serious negotiations.

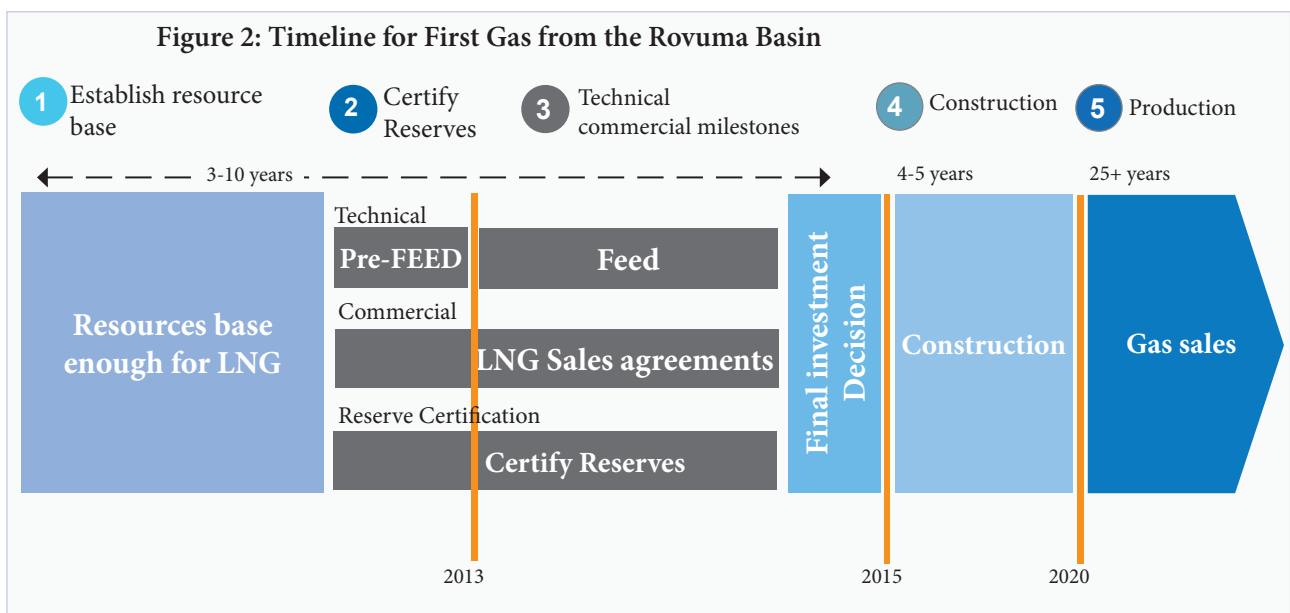
Second, extensive negotiations are required with government on the terms of LNG production, an approach not foreseen in the original EPC Contracts. The revised Petroleum Law, now awaiting Parliamentary approval, establishes the concept of a “Facilities Concession Contract.” This highly complex agreement also remains to be negotiated.

There is significant pressure to move quickly, particularly to lock in long-term LNG sales agreements as prices are expected to decline in the coming years. But the range and complexity of the issues make it unlikely that Final Investment Decisions will be taken before 2014 at the earliest.

This is the point at which project financing can be finalized and construction can begin.

Figure 2 indicates the expected timeline for the construction of an LNG plant at four to five years. This is no longer consistent with industry norms. In Angola, for example, design began on a one LNG plant facility in 2005 with a Final Investment Decision taken in 2007. First exports were scheduled for late 2011 but have been

Figure 2: Timeline for First Gas from the Rovuma Basin



postponed until at least the middle of 2013. The average time from Final Investment Decision to first LNG exports is now reported to be between six and seven years.³

Tanzania provides a useful point of comparison. On the timing of first gas exports, a 2013 study sponsored by the World Bank, concludes that, “First revenues from the development of deep water gas may be expected ten years from now at the earliest.”⁴

Looking at the experiences of peer countries, and taking into account the views of independent analysts, reasonable timelines for Mozambican LNG would be for construction to begin in 2015, resulting in 10 million tons of exports from two LNG plants beginning in 2021.

III. Rovuma Export Volumes

The scale of the gas finds in Mozambique has led to speculation that rapid development of these resources could make Mozambique the third largest exporter of LNG in the world. It has become almost commonplace for people in Maputo to assume that 10 LNG plants will be built in Palma. This was the assumption that underlay the very optimistic projection from the draft Gas Master Plan of \$5.2 billion in government revenue by 2026 (See Table 1). The ten-plant capacity

Table 1: Draft Gas Master Plan Expansion Assumptions

	2018	2020	2022	2024	2026
News Trains	2	2	2	2	2
Export Capacity (mtpa)	10	20	30	40	50

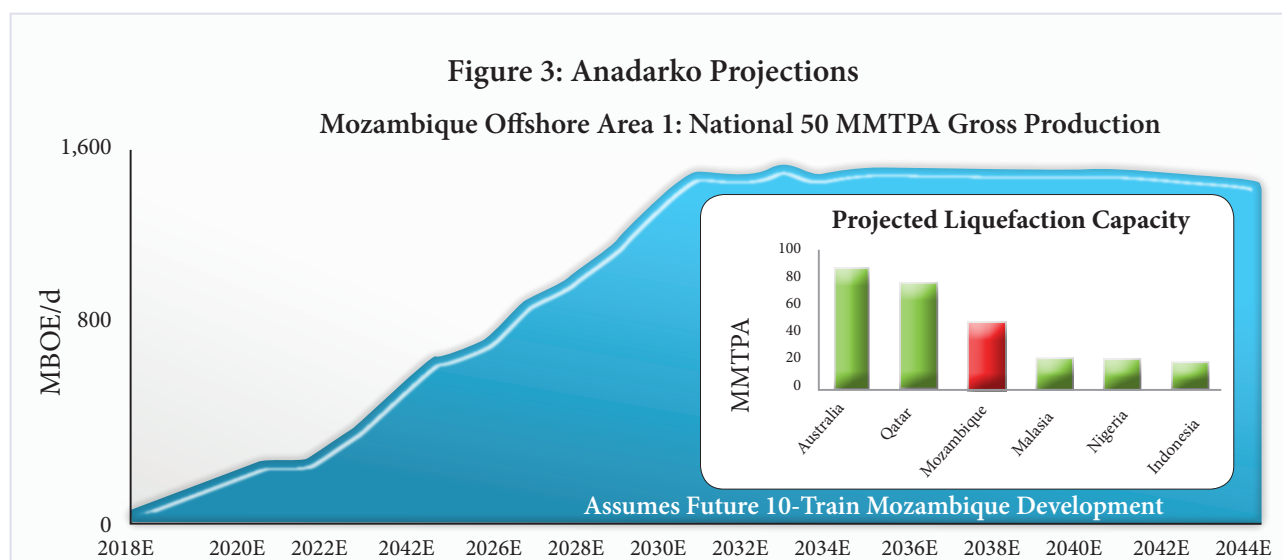
is now routinely reported in the Mozambique and international media and highlighted in Anadarko presentations (See Figure 3).⁵

Is it realistic to assume, as the draft Gas Master Plan did, that 2 plants could come on stream every two years for a total of 10 plants by 2026? There is only one precedent for expansion on that pace and scale – Qatar. But that country was already the world’s leading exporter of LNG when the rapid expansion began.

There is no precedent for a developing country lacking basic infrastructure or any history of LNG production to undertake this scale and pace of LNG development.

Many thought that Australia would equal the pace of development of Qatar. In Figure 3, Anadarko forecasts Australia overtaking Qatar as the world’s leading producer of LNG. It is not clear however that Australia will reach this goal given significant project delays and cost overruns on all of the projects of between 15 and 40%.⁶

The Mozambican government has indicated that it believes \$50-60 billion in investment will be needed to fully develop Rovuma Gas. This is almost certainly an under-estimate of the true cost of a ten-plant facility. LNG development on this



scale would make Palma the site of the second most expensive energy project anywhere in the world (See Table 2).⁷

competitive compared to projects under development in Australia and the arctic (See Figure 4).⁸

Table 2: World's Most Expensive Energy Projects

Project	Type	Location	Cost
Kashagan	Oil	Casaquestão	\$116b
(Palma 10 Trains)	LNG	Mozambique	\$60b
Gorgon	LNG	Australia	\$50g
Ichthys	LNG	Australia	\$43b
Bovanenkovskove	Natural Gas	Rússia	\$41b
Australia Pacific	LNG	Australia	\$37b
Wheatstone	LNG	Australia	\$35b
Queensland Curtis	Coal Seam LNG	Australia	\$34b
Kearl	Oil Sands	Canada	\$30b
GLNG	Coal Seam LNG	Australia	\$30b
Three Gorges Dam	Hydro-Electric	China	\$28b

Comparative analysis suggests that Mozambique is reasonably well placed. But this analysis is based on cost estimates that are highly uncertain. Anadarko's initial estimates are shown in Figure 5. Total costs, based on the higher end of their estimates, are \$15.7 billion. The IMF has estimated \$17.5 billion while the Gas Master Plan has assumed \$18.3 billion.⁹

Reliable projections of the pace and scale of development through the 2020s are all but impossible to develop – there are simply too many unknowns. Working on the assumption that there will be an unprecedented ten LNG plants operating by the mid-2020s seems unwise. The final Gas Master Plan pulled back on how fast Mozambican exports might develop, assuming six LNG plants operating by 2026. It would be an extraordinary achievement if even four LNG plants were operating in Palma by that time.

IV. Rovuma Costs

The production of LNG is fantastically expensive. Over time it has become even more costly. Overall capital expenditure per million tons of exports has doubled, some analysts say tripled, since 2003. Production in Mozambique will be very expensive compared to existing LNG facilities. It will also be costly compared with potential US LNG exports. But it will be

Large infrastructure projects invariably cost more, and take longer, than originally predicted. Cost overruns of 20% or more have become almost expected in the LNG sector. In Angola, for example, reports in 2008 indicated that the costs of the construction of a single LNG plant had doubled to \$8 billion with final costs now reported at \$10 billion. The story was similar in Papua New Guinea, where

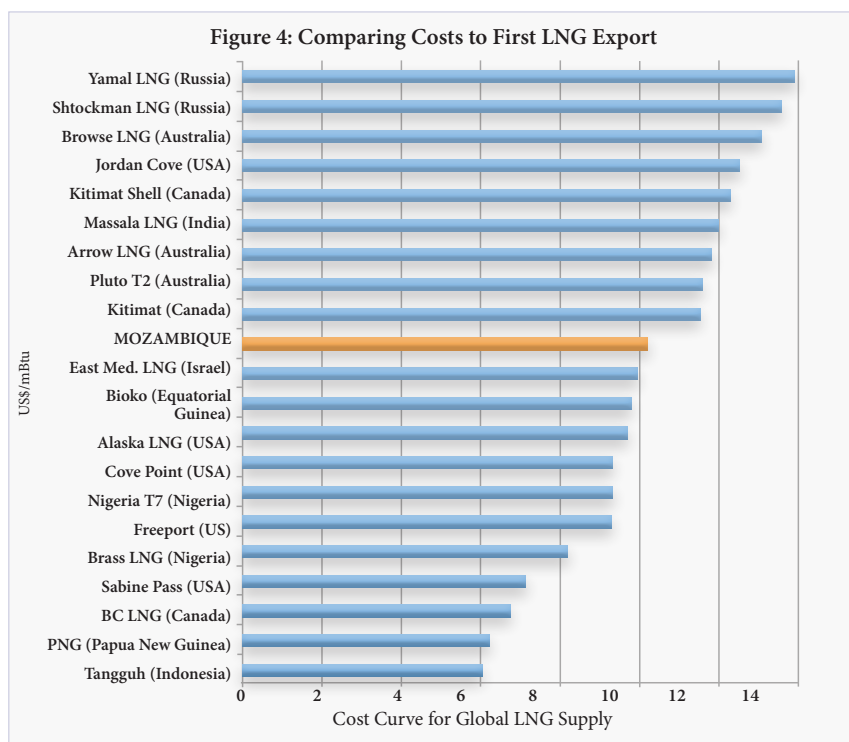
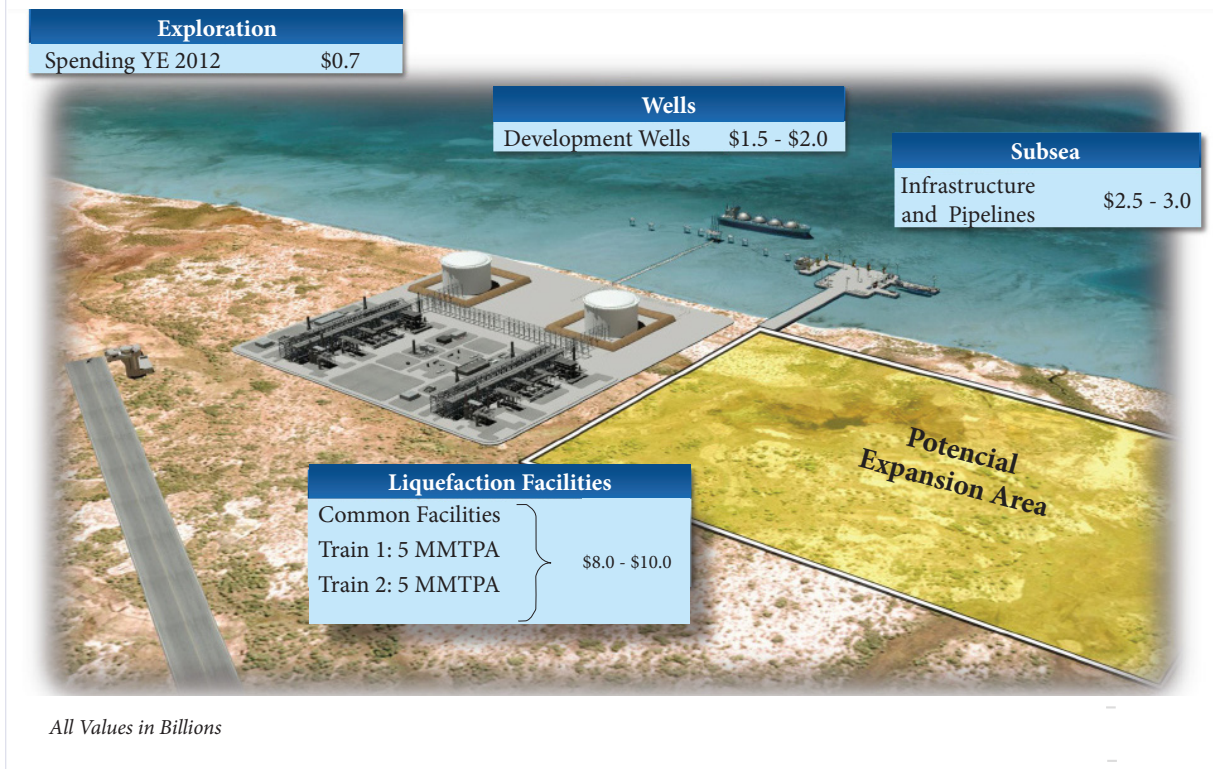


Figure 5: Capital Costs – Anadarko Estimates



a single LNG plant was expected to cost \$11 billion when designed, \$15 billion when construction began and is now at \$19 billion and climbing. A recent study on LNG in Tanzania estimates that a facility with two LNG plants “may require an investment between \$ US20 and 30 billion dollars.”¹⁰

There is no doubt that initial cost estimates will be revised upwards. In fact, the greater the East African natural gas boom, the greater the competition for scarce materials and skills and the greater the likely cost overruns. Wood Mackenzie, a leading oil and gas research firm, estimates costs for a two LNG plant facility in Palma at around \$25 billion.¹¹

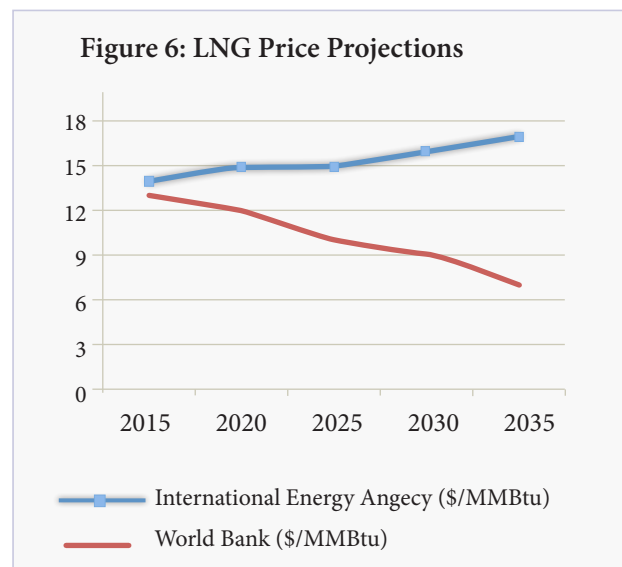
V. Rovuma Prices

Project revenues will be determined by the quantity of gas exported, the costs of production, and the value of the gas. The global LNG market is undergoing profound changes, making price projections even more difficult than normal.

Natural gas is an efficient and relatively clean burning source of energy, and demand is

projected to grow consistently, not least in Asia. Supply is much less predictable. Massive LNG expansion has recently taken place in Qatar and a similar effort is now underway in Australia. So-called “unconventional” natural gas extracted from shale by hydraulic fracturing (fracking), will transform the US from a net importer to a significant exporter. The price of LNG has traditionally been regionally based: an Atlantic and a Pacific region. Extremely low prices in the

Figure 6: LNG Price Projections



Atlantic region are likely to have knock-on effects in the Pacific region, as North American producers look towards Asian markets.

Will future demand outstrip supply? The International Energy Agency thinks so and forecasts rising LNG prices as shown in Figure 6.¹² The World Bank draws very different conclusions, assuming that supply grows faster than demand and that prices will fall.

Long-term price projections provide a reference point for estimating Rovuma revenues, but the price that ultimately matters is the one negotiated in the long-term sales agreements. If these contracts are signed with Japanese utility companies, as is widely assumed, the prices will be benchmarked against Asian oil prices. Government revenue from royalty payments and profit share gas will be calculated on the value of the gas as it enters the LNG plant which will be calculated by taking the final sale price and subtracting the cost of processing and shipping.

VI. Rovuma Fiscal Terms

Mozambique has adopted a “production sharing” system for allocating revenues from the petroleum sector. For a detailed overview of the fiscal terms in for the Rovuma Basin see CIP publication “The Rovuma Gas Contracts” (No. 03/2013). There are three important sources of revenue: royalties, income tax and production sharing. For the Rovuma Basin concessions, royalty payments are 2% of the gas produced. Corporate income tax is set at 24% for the first 8 years and the normal 32% beyond.¹³

The bulk of Mozambique’s revenue however will come from the sale of the government’s share of production. The amount of gas that is allocated to the government is determined by two factors, the recovery of company expenses and the profitability of the project.

In a production sharing system, royalties are paid first. The second step is to allow the company to recover its costs from exploration, development and operations. This is known as “cost gas.” In the early years of production, the total cost exceeds project income and would therefore consume all of the remaining gas. There are however

two restrictions on the recovery of costs. First, capital expenses can only be depreciated at 25% per year. Second, there are limits to cost recovery (65% Anadarko, 75% ENI) to guarantee that at least some profit gas is generated each year.

The proportion of gas that remains after royalties and “cost gas” have been subtracted is called “profit gas.” The “profit gas” is split between the company and the government on a sliding scale based on the ratio of cumulative income to cumulative expenses. The ratio – known as an r-factor – is less than 1 when overall project expenses exceed overall project income. When $r = 1$ the company has achieved “payout.” When $r = 2$ overall project income is double overall project expenses. The relative division of profit gas at each r-factor threshold is shown in Table 3.

Table 3: R-Factor Sliding Scale

R-Factor Scale	Anadarko	ENI
R less than 1	90%	85%
R1 - 2	80%	75%
R2 - 3	70%	65%
R 3 - 4	50%	55%
R4+	40%	45%

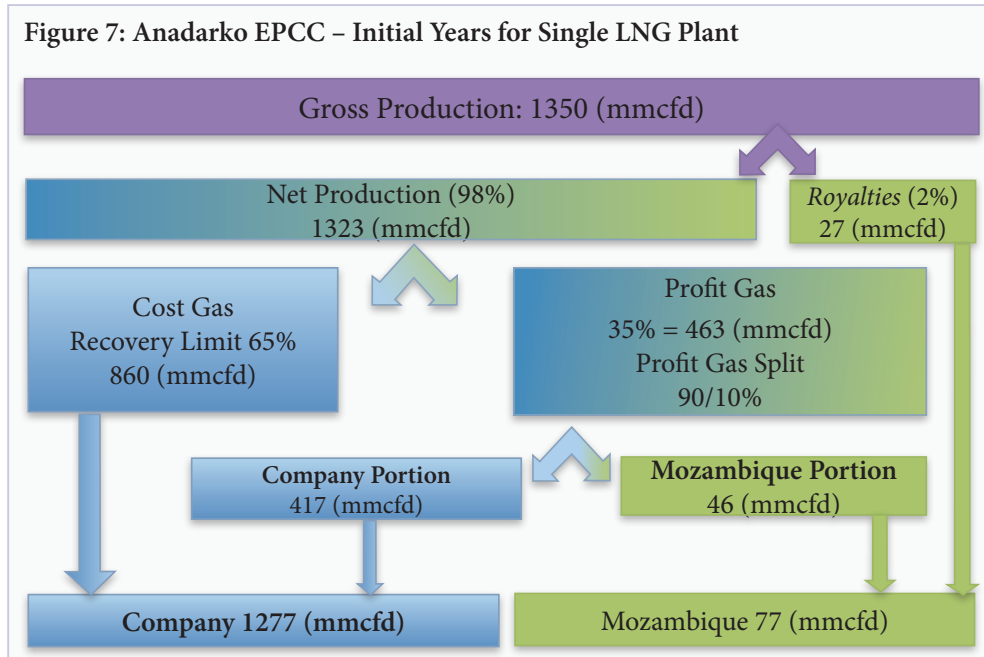
The implications of the fiscal regime are relatively straightforward when the project starts. Figure 7 illustrates the division of gas under the Anadarko EPCC in the first years of production. The 2% royalty is the first deduction from the gross production. Next, costs are recovered to the 65% limit. As the r-factor is less than 1, a share of 90% of the remaining profit gas goes to the company with 10% to the government. As allowable expenses far exceed taxable income, no corporate income tax is paid.

As Figure 7 shows, production sharing at this stage yields an additional 3.4% of gas. Combined with the 2% royalty, the governments overall revenues in the first years will be 5.4% of the total gas produced.

There is a second point at which it is also straightforward to illustrate the revenue implications of the production sharing arrangement. This is much further down the project timeline when project expenses are fully depreciated and the

ratio of overall income to overall costs is greater than 4 (See Figure 8).

important as crossing each threshold yields at least an additional 10% of profit gas to the government.

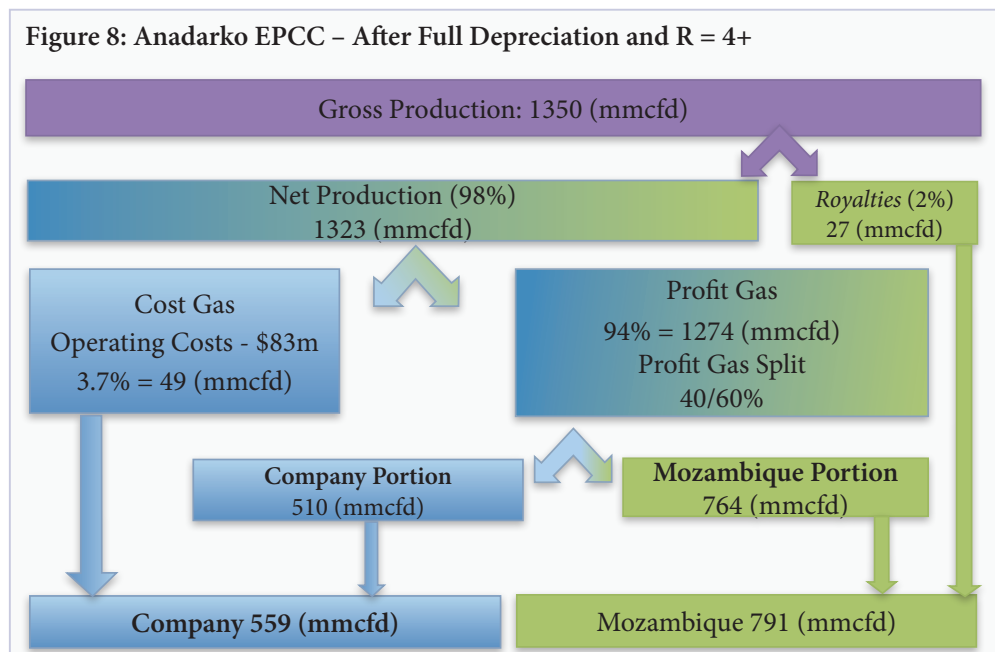


The third main source of government revenue is corporate income tax. The tax rate is 24% for the first eight years of production and increases after that period to the normal 32%. Income tax is calculated by subtracting eligible expenses from company income. The result of this calculation is the “taxable income,” 24% of which would be paid to the government. Given the broad range of

Once again the first step in allocating gas is the subtraction of the 2% royalty. The next step is the recovery of costs, but since all exploration and capital expenses have been recovered, only annual operating costs are deducted. The Gas Master Plan estimates annual operating expenses for a single LNG plant at \$83 million. At this stage, the vast majority of Gross Production is transferred to Profit Gas (94%). With an r-factor greater than 4, the government share is 60% of the profit gas, with the remaining 40% going to the company.¹⁴

available deductions, it is difficult to project the contribution of income tax to government revenue. What is clear is that income tax will not be paid during the early years of production, as eligible expenses will exceed overall income. Over the life cycle of the project, income tax payments will contribute more to government revenue than royalty payments but less than revenues from production sharing.

Price obviously has a profound effect on the relative benefits derived from the production sharing agreement. At low prices, more time is required to recover costs, resulting in lower levels of profit gas. The movement through the r-factor scale also takes much longer. The r-factor scale is particularly



VII. Rovuma Revenues

To our knowledge, there are only two sets of detailed revenue projections for the Rovuma Basin: an IMF submission to the Government of Mozambique and the recently published Gas Master Plan.

In June 2012, the IMF prepared revenue projections for the Rovuma Basin as part of their broader analysis of Mozambique's fiscal regime for the petroleum and mining sectors. Based on these projections, the IMF concluded that, "government revenues from a ten million ton per year Liquefied Natural Gas (LNG) project could reach US\$3–4Bn per year."¹⁵

Over the past 10 months, however, the IMF has become much more cautious about potential government revenues. In a recent presentation, the IMF representative concluded that "Assuming gas production/export starts in 2019 and increases gradually to reach full capacity by 2036, revenues from gas only could reach 15 percent of non-LNG GDP and account for almost 40 percent of total revenues by the end of the next decade."¹⁶ As the IMF no longer believes that their June 2012 projections are valid, we have not included them in the analysis below.

The Gas Master Plan was designed to assist the Government of Mozambique in deciding how best to use its share of natural gas production. It therefore focused on the comparative value generated based on a series of scenarios involving options beyond just exporting LNG. In the process, it generated the most detailed revenue projections to date, based on three different price assumptions. Two of the price assumptions are based on long-term forecasts by internationally recognized sources: they are averages of International Energy Agency and World Bank price forecasts for Japanese imports of LNG.

The third, most optimistic, price projection is

not based on forecasts from a reputable international institution. It was included in the Gas Master Plan at the request of Anadarko in order to illustrate that it was theoretically possible for the project to generate substantial government income in the early years of production.¹⁷ We therefore do not include this projection in the analysis below.

The data in Figure 9 is drawn from the Gas Master Plan. It shows government revenue projections from royalties and production sharing (income tax and potential dividends are not included) for two LNG plants producing 10 million tons of LNG per year. The higher projection is based on International Energy Agency price assumptions, while the lower is based on World Bank price assumptions. Each increase in government revenue represents the crossing of an r-factor threshold.

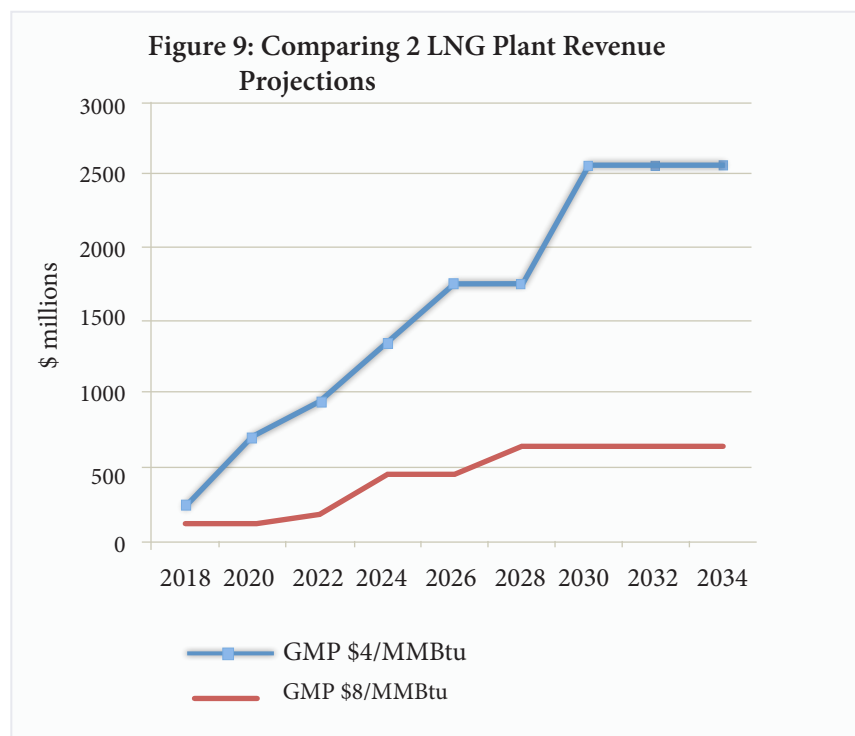


Figure 9 shows the expected pattern of government revenue from petroleum operations. Revenues are modest in the early years, rising as capital costs are recovered and r-factor increases result in a greater government share of profit gas. Even under the high price assumption, it takes more than ten years for the government share of profit gas to reach its maximum of 60%.

VIII. Rovuma Reality-Check

Describing the sub-components required to project potential government revenues is relatively straightforward. Modeling their interactions through the various stages of the project lifecycle and at various projected prices is complex.

CIP does not have access to models on which these projections are based. We do not have access to internal government or company data. And we do not have in-house petroleum economists and tax lawyers. No attempt therefore is made to provide an independent projection of Rovuma Basin revenues.

Models are only as good as the data that goes into them and the assumptions on which they are based. The question is whether these assumptions are realistic (consistent with industry expectations and the experiences of other developing countries) or optimistic (assume unusually good fortune). There are indications that the revenue projections provided in the Gas Master Plan are optimistic. Here are a series of reasons why.

Start of First Exports: GMP revenue projections assume that there will be 2 LNG plants exporting 10 million tons of LNG from Mozambique in 2018. This is what Anadarko says publicly in Maputo. But it is not what they say internationally. When talking to international investors they indicate that the 10 million ton target will not be reached until at least 2020. Leading independent analysts of the LNG sector do not include any exports from Mozambique in their 2020 forecasts.

Delays are to be expected. And it may seem that two or three years won't make much difference. But because significant government revenues come on-stream many years after the start of production, delays have a large impact. The IMF estimates that a single year delay could mean a loss in the net present value of the project for Mozambique of \$1.6 billion.¹⁸

Capital Costs: The capital costs involved in the construction of offshore wells and two LNG plants are difficult to estimate. Anadarko provides the lowest costs estimates of \$12.7-15.7

billion. Independent analysts believe the number could be as high as \$25 billion. Increased capital costs can have a major impact on government revenues by delaying progress through the r-factor thresholds and by increasing eligible deductions against corporate income tax.

Debt Financing included in Cost Recovery: Companies will use the future value of LNG exports to secure their loans for developing the project. The cost of borrowing could easily increase total project costs by \$2-3 billion. The costs of borrowing are normally an allowable expense against income tax. Unusually, the Rovuma EPC contracts also allow borrowing costs to be claimed as part of cost recovery.¹⁹ This provision is contained in a single sentence included in an Annex to the EPC contracts. As it will allow the company to recover billions of dollars in financing costs, it will have the same impact on government revenue as a 20% capital cost overrun. By diverting billions of dollars to "cost gas," this tax break will further push back the timelines for substantial government revenue.

Income Tax Deduction for Royalty Payments: Under the terms of the 2006 Rovuma Basin concessions, royalty payments are deductible from taxable income. This is also an unusual tax benefit. The provision was taken away through Law 12/2007, but remains in force for the Rovuma contracts. Since royalties are deducted before cost and profit gas are allocated, they are not included when calculating taxable income. Nevertheless, the contracts allow the company to claim the royalty payments for the calculation of taxable income.²⁰ The amount of this deduction is likely to exceed annual operating expenses and is the equivalent to lowering the royalty rate to 1.4%.

Gas Sale Price: The fiscal terms for 30 years of production of Rovuma Basin gas are set in the 2006 EPC contracts. The prices on which royalties and profit gas will be calculated have not yet been established. The price on which government revenues will be calculated is still to be negotiated with the companies. The fiscal terms in the Rovuma contracts are already generous. They would be fundamentally undermined if they are based on a price for LNG below market

value. Mozambique has already experienced the implications of agreeing to an unreasonably low sale price. As future CIP analysis will show, the fiscal terms for the Sasol gas project in Inhambane are not unreasonable. The reason the project has failed to generate government revenue is because the sale price for gas on which royalties and income tax are assessed was set at a fraction of market value. *More Company Investment – Less Early Government Revenue*: It may seem reasonable to assume that greater investment in additional LNG plants will result in greater government revenues. In the longer term this could be true. In the short to medium term, however, more company investment will yield less government revenue.

There is some confusion on the implications for government revenue of adding more LNG plants. The Gas Master Plan developed a multi-plant scenario assuming 2 plants operating in 2018 and an additional plant coming on-line every two years for a total of 6 plants by 2026. In order to calculate the cumulative effect of these additional plants, the Gas Master Plan assumed that capital costs for an additional LNG plant will be recovered only from the revenue from that LNG plant – this is known as “ring fencing.”²¹ However, the EPC contracts are clear that there is no ring fencing within a concession area: cost gas and r-factor calculations will be made “in respect of the whole of the EPC area.”²² The Gas Master Plan decision to assume ring fencing of LNG plants within the concession area undermines the credibility of their multi-LNG plant projections.²³

Given the terms of the contracts, it is clear that the profile of government revenue will not increase consistently as additional LNG plants are added. Capital costs for the construction of additional LNG plants are incurred years before the additional exports begin. As a result, these costs will reduce the overall r-factor resulting in a lower percentage of profit gas being allocated to the government. Increased capital expenses will also reduce corporate income tax payments. In the period immediately following the capital investments in subsequent LNG plants, overall government revenues from LNG will likely

decline for a period of time. This may have little effect on government revenue over the full life-cycle of the project, but it could have profound effects in the medium term.

The list above is quite technical. Our point however is quite simple. The EPC contracts, with appendixes, are more than 130 pages. As we have demonstrated, single sentences can have billion dollar implications. Substantial percentages of potential government revenue can easily be lost in the fine print.

We assume therefore that there will be other important factors, not considered here, that will further reduce the actual share of project revenues allocated to the government of Mozambique.

Notes

- ¹ All data from BP Statistics of World Energy 2012, except Mozambique from Gas Master Plan, 2013, p. 4-20.
- ² Graphic taken from PTT (Thai Petroleum Company now holding Cove Energy’s 8.5% stake in Anadarko-led concession) “Advice to Investors,” 2012.
- ³ Neil Beveridge and Oswald Clint, *Global LNG: The Dawn of North American LNG Exports and Implications for Global Gas*, Bernstein Research, 2013.
- ⁴ Tanzania Gas Sector Scoping Mission, Led by the World Bank, International Monetary Fund and African Development Bank, 21 February 2013, p. 25.
- ⁵ See for example “Mozambique to use gas to build industrial base, LNG exports,” Reuters, 14 December 2012. On Anadarko projections, see John Colglazier, VP Investor Relations, Anadarko, Presentation entitled: “Predictable Growth and Differentiating Value,” 20 February 2013 P. 37.
- ⁶ See “Australia LNG Growth to Continue on Asia Demand,” Bloomberg, 7 February 2013
- ⁷ “10 most expensive energy projects in the world, CNN Money, 10 August 2012.
- ⁸ Neil Beveridge and Oswald Clint, *Global LNG: The Dawn of North American LNG Exports and Implications for Global Gas*, Bernstein Research, 2013.
- ⁹ On IMF cost assumptions, see Alistair Watson, *Mozambique: Reforming the Fiscal Regimes for Mining and Petroleum*, IMG Fiscal Affairs Department, June 2012, p. 71; cost assumptions for Gas Master Plan

provided by ICF International.

- ¹⁰ Tanzania Gas Sector Scoping Mission, Led by the World Bank, International Monetary Fund and African Development Bank, 21 February 2013, p. 25.
- ¹¹ See Wood Mackenzie, “East Africa’s yet to find reserves hold 95 tcf of gas” 22 August 2012.
- ¹² Gas Master Plan, 2013, p. ES-26.
- ¹³ The one other potential source of significant government revenue is dividends from the government’s equity stake in the project. As has been analyzed in CIP Publication Financing Mozambique’s Stake in Rovuma Natural Gas, No. 05/2013, the scale of government ownership remains unclear and potential government revenues from that source are highly unpredictable.
- ¹⁴ Cost gas calculated based on Gas Master Plan estimate of annual operating expenses of \$83 million.
- ¹⁵ Alistair Watson, Ricardo Varsano, Charles McPherson, Santa Gadea and Ejona Fuli, Mozambique: Reforming the Fiscal Regimes for Mining and Petroleum, IMG Fiscal Affairs Department, June 2012, p. 8.
- ¹⁶ Victor Lledó, Fiscal Regimes and Fiscal Frameworks in Resource-Rich Developing Countries: Policy Recommendations for Mozambique, IMF, 19 February 2013.
- ¹⁷ Request by the President of Anadarko Mozambique at the *Seminario sobre Plano Director de Gas Natural*, 6 September 2012.
- ¹⁸ Watson, Mozambique: Reforming the Fiscal Regimes for Mining and Petroleum, IMF, p 70.
- ¹⁹ See Carole Nakhle, Petroleum Fiscal Regimes: Evolution and Challenges”, in Philip Daniel *et al*, The Taxation of Petroleum and Minerals, Routledge, 2010, p. 99, and Emil M. Sunley, Thomas Baunsgaard and Dominique Simard, Revenue from the Oil and Gas Sector: Issues and Country Experience, IMF, 2002, p. 8.
- ²⁰ See Watson, Reforming the Fiscal Regimes for Mining and Petroleum, 2012, p. 49.
- ²¹ In industry jargon an LNG plant is known as a “train.” The Gas Master Plan assumes that “the first two trains as being ring fenced from the other 4 trains, and every new train (after the first two) is essentially ring-fenced from each other.” Gas Master Plan, 2013, p. 6-23.
- ²² Mozambique Model Exploration and Production Concession Contract, 2005, Article 9.4(a).
- ²³ If the assumption of ring-fencing were removed from the model, the profile of Exhibit 6-14 on page 6-23 of the Gas Master Plan would change, with lower royalty gas volumes following investments in additional LNG plants.

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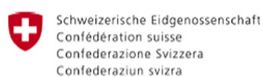
Good Governance, Transparency and Integrity

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