Sound Energy

SOU LN - Oil & Gas Producers

Price	0.95p
Market Cap	£19m
Shares in Issue	1,933m
12m Trading Range	0.6p – 1.9p
Free Float	76%
Next Event	Tendrara development update, Q3

Prices as at close 24/06/2024

Price performance (p)

Source: FactSet

Financial forecasts

Y/E Dec (£m)	2023A	2024E	2025E	2026E
Net Prod'n (mboe/d)	--	--	0.16	0.34
Gas Price (US$/mcf)	--	--	8.1	8.1
Sales	--	--	2.2	4.7
EBITDA	(2.2)	(2.1)	(0.9)	0.3
Free Cash Flow	(5.1)	(9.9)	(7.7)	(17.9)
Net Cash/(Debt)	(30.3)	(30.5)	(39.3)	(58.7)
DPS (p)	--	--	--	--

Valuation (p/share)	
Core NAV	2.3
Total Risked NAV	4.0
Total Unrisked NAV	11.2

Source: Audited accounts and Zeus estimates

Sound Energy is a broker client of Zeus

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Initiation: The sound of progress

Sound Energy is a UK-listed E&P with gas assets onshore Morocco. The company has made material progress in development of its Tendrara asset, with Phase 1 development underway, and the larger Phase 2 advancing towards FID. There is an ever clearer route to material, sustained cash flows, with regular catalysts from development progress updates and new high-impact E&A drilling.

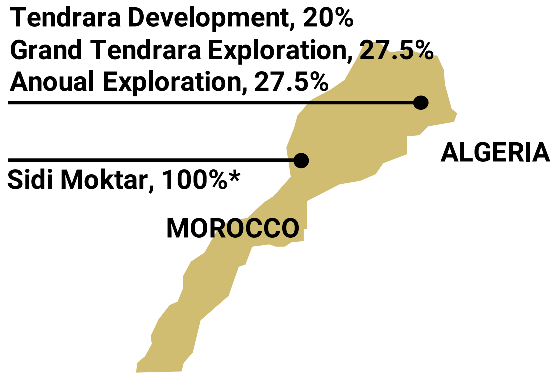
- **Tendrara represents a material asset position for Sound.** Tendrara is a significant asset, containing 305bcf of gross sales gas, or 10.2mmboe net to Sound. The onshore location controls costs (we expect OPEX of c.US$10/boe once ramped up), while also allowing development via a phased approach, helping spread out CAPEX and lower upfront funding needs. The Morocco domestic market is starved of gas, with supplies from Algeria likely to continue being curtailed long-term, and only modest imports from Spain, but the country has significant expansion ambitions.
- **Phase 1 development underway, first gas sales mid-2025.** Sound broke ground on its Phase 1 Tendrara development in 2022. This is based on supply of a gross 10mmcf/d of gas commercialised via a micro-LNG facility. This initial project should help reassure on field deliverability, demonstrate Sound's operational capabilities, and provide early cash flows, all achieved via a capital-lite structure including leased facilities. Progress here will provide catalysts for the shares, going into first gas that we expect in mid-2025.
- **Larger Phase 2 well advanced.** Tendrara Phase 2 is planned to be much larger: we model sales gas production of 42mmcf/d gross. Offtake would be via an already-agreed tie-in to the GME pipeline, which runs to Morocco's gas demand centres in the west of the country. Sound has also secured a contract with utility ONEE covering 29mmcf/d for ten years, and we expect the balance could be sold via other contracts or on a merchant basis. We model overall gas prices around US$8/mcf. The JV now needs to complete detailed development planning and confirm full funding: we could see FID in 2025 and first gas in 2027.
- **Significant Phase 2 funding progress made via farm out and debt facility.** Sound has materially progressed funding for Phase 2, announcing a farm out to Managem (giving important endorsement of the attractiveness of Tendrara, alongside development and exploration carry and back costs for Sound) and binding agreement for a US$237m project debt facility with a local bank. This now provides an identified route to seeing Phase 2 fully funded, helping pave the way for FID in 2025.
- **Sustained material cash flows once Phase 2 onstream.** Once Tendrara Phase 2 comes onstream, the contracted volumes and ready domestic gas market, alongside the limited OPEX and very favourable Morocco tax regime, drive strong and sustained cash flows: we forecast Sound EBITDA of £17m and free cash flow of £12m from 2028.
- **Near-field exploration/appraisal adds significant catalysts.** Sound has additional exploration potential around Tendrara and elsewhere in Morocco. Drilling of the 15mmboe SBK-1 well and 93mmboe M5 well are both currently planned for 2025, and funded from the farm out.
- **Shares undervalued versus our NAV.** Our core NAV is 2.3p and total risked NAV 4.0p – both substantially above current levels.
- **Numerous upcoming catalysts.** We see upcoming catalysts from Phase 1 progress and first gas; full completion of Phase 2 funding via the farm out and debt facility; Phase 2 approvals and FID; subsequent Phase 2 development progress and first gas; and exploration drilling.

Summary

Market Data

Share Price	0.95p
Market Capitalisation	£19m
Shares Out	1,993m
Net Cash/(Debt) end 2023	(£30m)

Morocco Asset Locations



Summary Income Statement (£m)

Year to Dec	2022A	2023A	2024E	2025A	2026A
Sales	**--**	**--**	**--**	**2.2**	**4.7**
Royalty	--	--	--	--	--
OPEX	--	--	--	(1.4)	(2.6)
DD&A	(0.1)	(0.2)	--	(0.8)	(1.6)
G&A	(3.1)	(2.2)	(2.1)	(1.7)	(1.8)
Op Profit	**(3.1)**	**(2.4)**	**(2.1)**	**(1.7)**	**(1.3)**
EBITDA	**(3.0)**	**(2.2)**	**(2.1)**	**(0.9)**	**0.3**
Net Interest	(1.4)	(2.0)	(2.1)	(2.3)	(2.8)
PBT (Adj)	**(4.6)**	**(4.3)**	**(4.2)**	**(4.0)**	**(4.1)**
Tax	(1.6)	(0.0)	--	--	--
PAT (Adj)	**(6.2)**	**(4.3)**	**(4.2)**	**(4.0)**	**(4.1)**
EPS (Adj)	(0.35p)	(0.23p)	(0.21p)	(0.20p)	(0.21p)

Summary Cashflow Statement (£m)

Year to Dec	2022A	2023A	2024E	2025A	2026A
Working Capital	(2.0)	0.4	--	--	--
Cash Tax	(0.0)	(0.1)	--	--	--
Op CF	**(3.9)**	**(1.5)**	**(1.9)**	**(0.6)**	**0.6**
Dev't CAPEX	(5.8)	(2.3)	(7.0)	(5.8)	(15.1)
Expl CAPEX	(0.4)	(0.7)	--	--	(2.1)
Acquisitions	--	--	8.2	--	--
Investing CF	**(6.2)**	**(2.9)**	**1.2**	**(5.8)**	**(17.2)**
Free CF	**(10.6)**	**(5.1)**	**(9.9)**	**(7.7)**	**(17.9)**
Net Borrowings	7.2	4.4	5.0	5.4	17.9
Interest Paid	(0.4)	(0.4)	(1.1)	(1.3)	(1.3)
Financing CF	**10.4**	**3.8**	**3.9**	**4.1**	**16.6**
Net Change in Cash	0.3	(0.6)	3.3	(2.3)	--
Net Cash/(Debt)	**(26.3)**	**(30.3)**	**(30.5)**	**(39.3)**	**(58.7)**

Summary Balance Sheet (£m)

Year to Dec	2022A	2023A	2024E	2025A	2026A
PPE & Intangibles	199.4	192.9	191.7	196.7	212.3
Receivables and Inventories	3.8	1.8	1.8	1.8	1.8
Cash and Equivalents	3.9	3.0	6.3	4.0	4.0
Total Assets	**212.1**	**204.2**	**206.3**	**209.0**	**224.6**
Payables	1.9	2.5	2.5	2.5	2.5
Debt	30.2	33.3	36.8	43.3	62.7
Total Liabilities	**34.0**	**37.5**	**41.0**	**47.5**	**66.9**
Equity	178.1	166.7	165.2	161.5	157.7
Liabilities + Equity	**212.1**	**204.2**	**206.3**	**209.0**	**224.6**

Valuation and Production Data

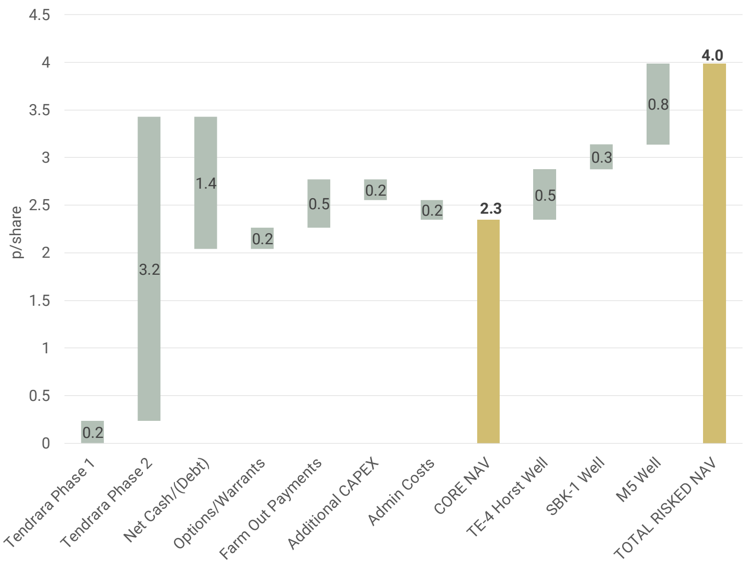
Discount Rate	10.0%
LT US$/£	US$1.30
Diluted NOSH (m)	2,184m

Year to Dec	2022A	2023A	2024E	2025A	2026A
Brent Oil Price (US$/bbl)	99.0	82.1	80.0	70.0	65.0
Sound Gas Price (US$/mcf)	--	--	--	8.1	8.1
Net Oil Production (mbbl/d)	--	--	--	--	--
Net Gas Production (mmcf/d)	--	--	--	0.9	2.1
Total Net Production (mboe/d)	**--**	**--**	**--**	**0.16**	**0.34**
Unit OPEX (US$/boe)	--	--	--	(29.6)	(27.0)
Unit OCF (US$/boe)	--	--	--	(12.9)	5.9
Unit FCF (US$/boe)	--	--	--	(166.9)	(185.9)

Summary NAV

	Interest (%)	Net Unrisked (mmboe)	Unrisked Value (US$/boe)	Unrisked Value (p/share)	Risked Value (US$m)	Risked Value (p/share)
Development						
Tendrara Phase 1	20%	1	5.4	0.3	6.8	0.2
Tendrara Phase 2	20%	9	12.1	3.8	90.6	3.2
Total Development		**10**		**4.0**	**97**	**3.4**
Net Cash/(Debt)					(39.3)	(1.4)
Options/Warrants/Converts					6.3	0.2
Farm Out Payments					14.5	0.5
Additional CAPEX					(6.2)	(0.2)
Admin Costs					(5.9)	(0.2)
CORE NAV				**2.9**	**67**	**2.3**
Exploration/Appraisal Upside						
TE-4 Horst Well - Tendrara	27.5%	8	6.0	1.8	15.0	0.5
SBK-1 Well - Tendrara	27.5%	4	6.0	0.9	7.5	0.3
M5 Well - Anoual	27.5%	26	6.2	5.6	24.0	0.8
Total Exploration/Appraisal		**38**		**8.3**	**47**	**1.6**
TOTAL CORE + UPSIDE NAV				**11.2**	**113**	**4.0**

NAV Distribution Chart



Source: Zeus, Bloomberg, Company

Contents

Investment case

Sound operates the Tendrara discovery onshore Morocco. This has proven up a material gas resource, which is now being progressed through initial development, with a second phase planned to drive significant further growth. Offtake will be into the undersupplied Moroccan domestic gas market, and over the coming months and years we expect catalysts in particular from confirming funding for and then progressing Phase 2 development, progression of and first gas sales from Phase 1, new exploration/appraisal drilling, and overall production and cash flow growth beyond this.

Tendrara asset represents material discovered resource, with controlled onshore costs and a ready domestic gas market

Material discovered gas resource of 10.2mmboe net

Sounds will hold 20% (post farm out) in the Tendrara TE-5 Horst discovery, onshore Morocco. This contains gross 305bcf of 2C gas (based on sales gas), or 10.2mmboe net. TE-5 Horst has been proven up by Sound via the drilling of the TE-6 and TE-7 wells, including flow test results at 17mmcf/d and 32mmcf/d respectively. This material resource is now moving forward through development.

Onshore location controls costs and allows phased development

The Tendrara asset's onshore location is well suited to a smaller company like Sound, as it helps bring down overall unit costs, both CAPEX and OPEX. For CAPEX, we assume US$8.7/boe for Phase 1 and US$6.0/boe for Phase 2 in our modelling. These relatively low CAPEX levels mean the project is less reliant on economies of scale, meaning it can be developed in a more modular fashion and hence less funding has to be secured in order to commence development. Sound has already taken advantage of this, with its Phase 1 development already underway.

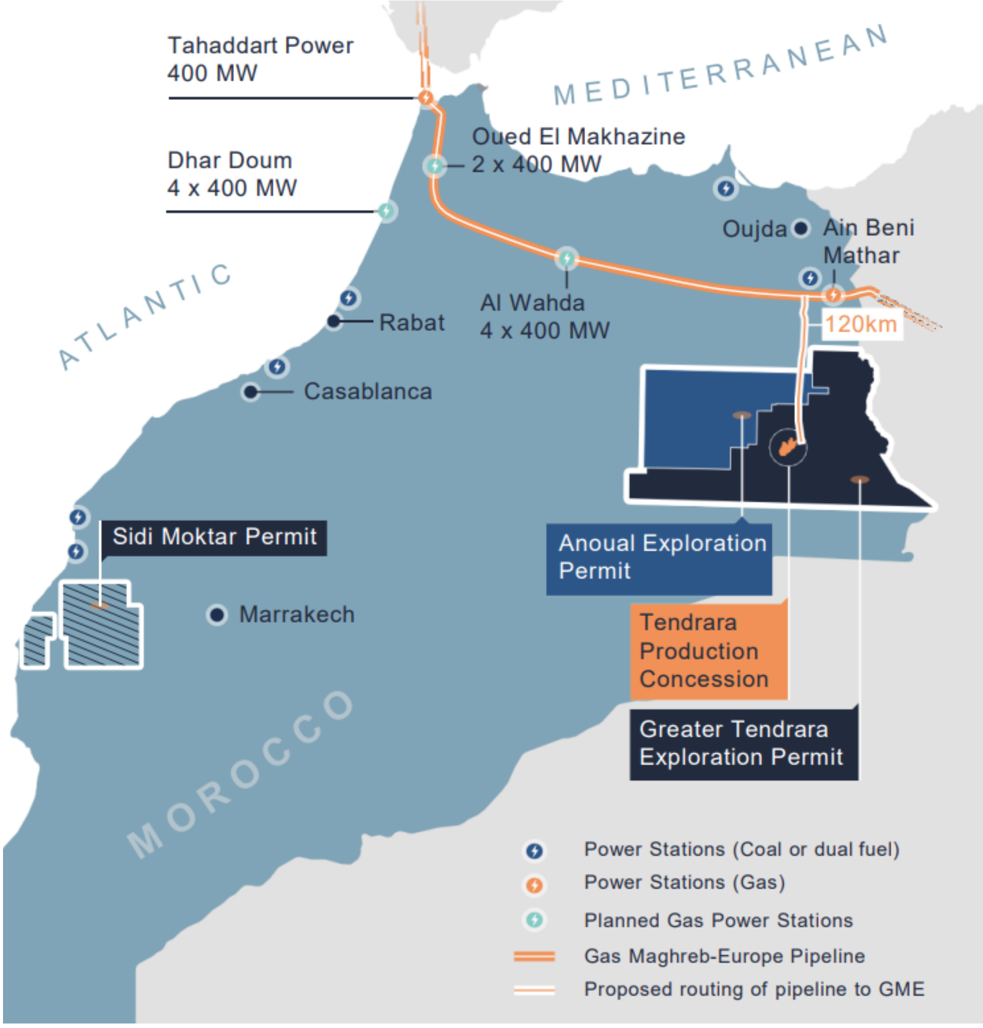
Once the development is fully up and running, unit OPEX should also be relatively low overall – our modelling assumes a US$27.4/boe life of field OPEX just for Phase 1 (in part due to fixed lease costs, which we have included in OPEX), but this moves to US$10.6/boe considering Phases 1 and 2 as a whole. This will help increase margins and support company cash flows as the project develops.

Significant domestic gas market available in Morocco

Morocco's gas demand was 74mmcf/d for 2021, of which only 9mmcf/d was produced domestically. Moreover, the main source of Moroccan gas imports, the GME pipeline which runs from Algeria through Morocco into Spain, stopped exporting gas in late 2021, and since then Morocco has had to rely on gas exported back down the GME from Spain itself. Morocco has two existing gas fired power stations, with combined demand of around 100mmcf/d, and plans for another three which would require a further 500mmcf/d. We model Tendrara Phase 1 and 2 plateau production at 52mmcf/d gross, representing less than existing Morocco gas imports, and only a small portion of potential demand given the planned new gas-fired power stations. In addition, there is also potential for exports into Spain. Overall, there is a strong pool of potential demand for Sound's Tendrara gas.

Sound expects to initially access its gas markets via trucked LNG in Phase 1, underpinned via an offtake contract with Afriquia Gaz (which is responsible for trucking from the field to market). In Phase 2, the company expects to construct a suitably sized pipeline connection directly into the GME pipeline, and this is already agreed and permitted.

Sound Upstream Portfolio and Morocco Gas Infrastructure



Source: Sound

Tendrara Phase 1 development funded and underway

Sound began development activities on its Phase 1 Tendrara development in 2022. These principally consist of the construction of a micro-LNG facility and gas gathering infrastructure, with two existing wells expected to be used as producers initially, supporting the agreed 10mmcf/d (1.7mboe/d) gross take-or-pay offtake contract with Afriquia Gaz. We expect the development to be fully funded to first gas via an US$18.0m debt facility (also with Afriquia Gaz) and assuming the Managem farm out.

Going forward, we expect ongoing updates on Phase 1 development progress as the facilities are all completed and tied into the production wells, with the TE-6 and TE-7 wells recently having been worked over ahead of initial production. We then expect first gas sales in mid-2025, followed by revenues and cash flows in subsequent financial reports.

This provides a string of catalysts for the stock, underpins cash flows for the company which can be used to cover ongoing G&A, and provides important operational experience and field production data in order to support Phase 2 development.

Tendrara Phase 2 advancing towards FID

Alongside developing its Tendrara Phase 1 project, Sound is also progressing Phase 2. This is expected to be an order of magnitude larger than Phase 1: while our modelling assumes Phase 1 will develop 39bcf of gross sales gas, Phase 2 would then develop the balance 265bcf. As such, successfully progressing Phase 2 and initiating development activities on the ground will be an important value event for Sound.

The company has already made material progress here. Sound has: agreed the pipeline connection of Tendrara to the GME pipeline and permitted the pipeline route; signed an initial offtake contract with Moroccan state utility ONEE, which we would expect to account for 112bcf of gross sales gas; and begun scoping out the development plan, including facilities, gas gathering infrastructure and an initial five new horizontal production wells (with a further seven post first gas).

Sound has also made important progress on funding, announcing a significant project debt facility with Morocco's Attijariwafa Bank in 2023, and recently a farm out agreement with Morocco-based multinational company Managem. Full completion of both of these creates a route to seeing Phase 2 fully funded, an important catalyst for the stock, and discussed further below.

Confirming full funding, finalising development plans and securing remaining approvals would then allow Sound to move to Phase 2 FID. The magnitude of the Phase 2 Tendrara resource and the materiality of this to Sound mean that fully securing development will be a material positive event for the stock, with milestones on the way towards this, including confirming funding and gaining full approvals, also acting as catalysts for the shares.

Major funding progress made on Tendrara project debt facility and farm out

Sound has announced two material pieces of news on Tendrara project funding: in 2023 a conditional binding offer from Attijariwafa Bank for a project debt facility for Tendrara Phase 2, and recently a proposed farm out of 55% of the Tendrara licence to Managem (leaving Sound on 20%).

The Attijariwafa Bank facility would be for up to US$237m (or 65% of Phase 2 project CAPEX), syndicated and underwritten by Attijariwafa. There are various conditions to be satisfied (mainly around development approvals and achieving full project funding), and the potential facility provides substantial funding underpinning for Phase 2.

The proposed farm out with Managem includes: Managem providing carry of up to US$24.5m for Sound's net share of Tendrara Phase 2 equity CAPEX; Managem paying Sound cash back costs for Tendrara Phase 1 and 2, worth US$13.0m; a US$1.5m cash payment within one year of Phase 2 first gas; carry of US$3.6m on the SBK-1 appraisal well and US$2.6m on the M5 exploration well (expected to fully fund both wells). Managem takes 55% of the Phase 1 and 2 development area, and 47.5% of the wider Grand Tendrara exploration licence and next door Anoual exploration licence, also assuming operatorship.

In addition to the above, the Managem farm out also sees Managem assume full responsibility for the 12-year 8-11% net profit interest that Schlumberger holds in Tendrara – this provides a very helpful boost for Sound cash flows and value. The US$2.5m Morocco tax settlement liability also transfers to Managem.

This all leaves Sound in a strong funding position for its planned projects. The current estimate for Tendrara Phase 2 CAPEX is US$330m gross, though we would only expect US$249m of this to be spent prior to first gas. At 65%, the Attijariwafa debt facility would cover US$162m (based on pre first gas CAPEX, we believe a higher leverage ratio may be possible on greater cost confidence as a result of FEED), leaving US$87m. Moroccan state oil company and sector regulator ONHYM holds 25%, which then leaves US$65m for Sound and Managem. Managem would then cover US$72.5m under the farm out (US$48m of Managem equity CAPEX, and up to US$24.5m of Sound carry), which should leave the Phase 2 project fully funded, subject to the outcome of Phase 2 FEED costs estimates.

Tendrara Phase 2 Funding Progress

	US$m
FUNDING POTENTIALLY REQUIRED	
Tendrara Phase 2 gross CAPEX (current estimate)	330
Tendrara Phase 2 gross CAPEX pre first gas (current estimate)	**249**
FUNDING IDENTIFIED	
Attijariwafa proposed debt facility (@ 65% leverage on pre first gas CAPEX)	162
ONHYM equity CAPEX (25% interest)	22
Managem carry for Sound	24.5
Managem equity CAPEX (55% interest)	48
Total Available Funding	**256.5**

Source: Zeus Research, Sound

As such, the combination of the new debt facility and the farm out represent very significant progress on funding the Tendrara Phase 2 project, and full closure of both of these represent catalysts for the shares.

Phase 2 development post FID – project milestones and first gas

Once Tendrara Phase 2 FID is secured, the JV will then move on to development execution. As with Phase 1, we would expect this to drive the reporting of achievement of development milestones as facilities and gas gathering infrastructure are constructed and commissioned, the pipeline connection constructed, and new production wells drilled and flow tested. This will then ultimately result in first gas, and subsequent reporting of revenues from Phase 2.

This then represents a further string of catalysts for the shares, likely over the course of 2025 to 2027, further demonstrating the value of the resources that the company holds to the market, while at the same time underpinning a material increase in cash flows for the company.

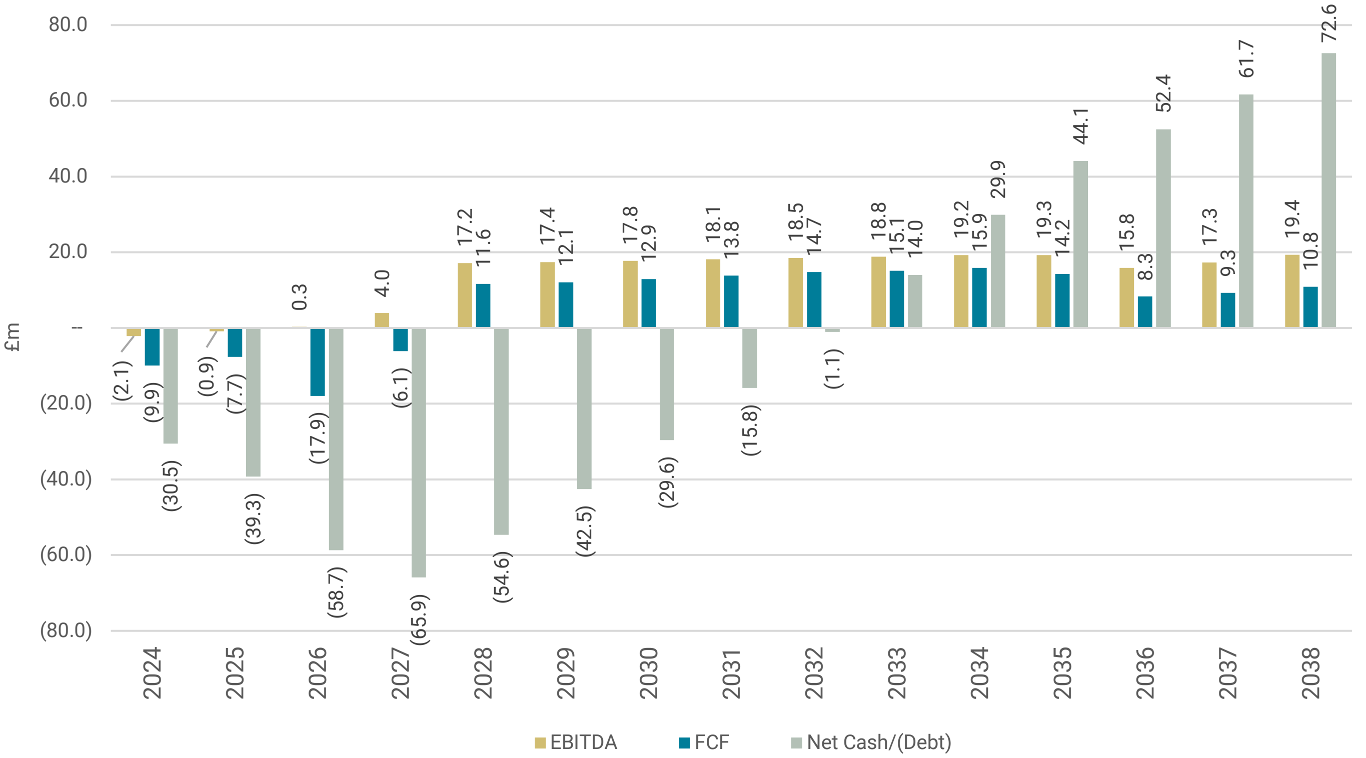
Material cash flow potential once Tendrara Phase 2 onstream

Once the Tendrara Phase 2 development is onstream and ramped up, this should throw off very significant cash flows for Sound. Below we show a chart of our forecast long term company cash flows, assuming a 20% Tendrara interest for Sound post the farm out.

As these numbers show, the addition of Phase 2 would materially increase cash flows for Sound. They also demonstrate the attractiveness of the Moroccan fiscal regime, with a significant portion of EBITDA converting into free cash flow, alongside the company's ability to pay down its debt position, including existing facilities and assumed further debt for Phase 2, and then eventually begin accumulating net cash.

This will then represent an attractive cash flow business for investors, which could begin to support shareholder returns. Overall, this is the core offering of the Sound investment case – significant resources in the ground, which will generate numerous operational catalysts as these are developed, resulting in the progressive growth towards material cash flows. The exploration wells then add a high-impact element on top of this.

Sound Forecast Cash Flows – Tendrara Phase 1 and 2 Development Combined Total



Source: Zeus
Note: Uses Sound Tendrara interest of 20%

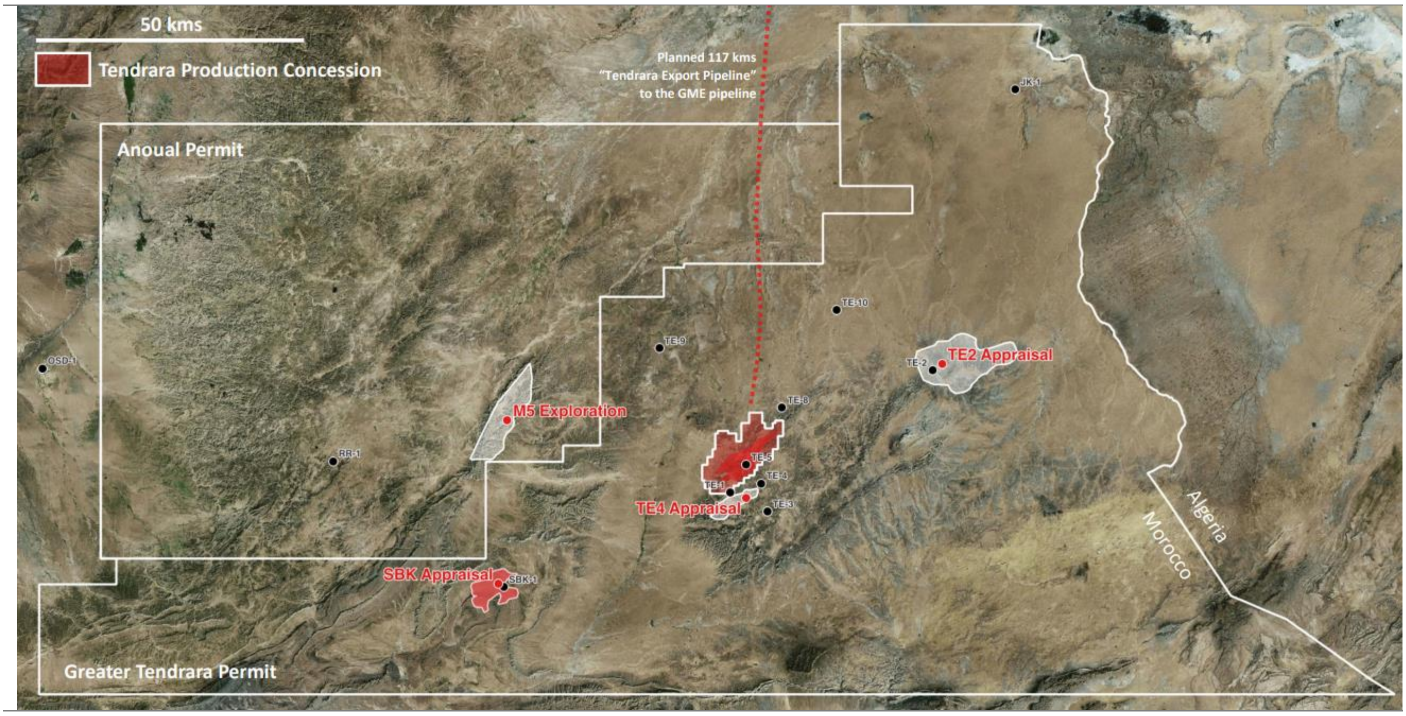
Material upside potential from new exploration drilling

While the Tendrara TE-5 Horst development is the focus for Sound, the company has significant additional exploration upside in its wider portfolio, with new upcoming drilling now funded by the Managem farm out.

On the Grand Tendrara exploration licence (which surrounds the Tendrara development area) there is the SBK-1 discovery, where Sound intends to drill an appraisal well – we allow for a 15mmboe gross target in our model. On the neighbouring Anoual exploration licence, Sound plans to drill the M5 exploration well – we allow for a 93mmboe gross target in our model. These wells should both be fully funded by the Managem farm out, and represent material drilling catalysts for Sound in, we expect, 2025.

On drilling success in either well, SBK-1 and M5 could represent further phases of development for Sound, while also potentially leveraging the offtake route into the GME pipeline established during Tendrara Phase 2.

Sound Exploration Map



Source: Sound

In addition, there is a potential future exploration/appraisal well on the TE-4 Horst – we allow for a gross resource of 30mmboe in our modelling, and this well could be drilled in the coming years, potentially utilising cash flows from the Tendrara development. There is also stratigraphic potential at TE-2, where Sound has attributed best estimate GIP of 1,065bcf. These opportunities both provide additional high-impact upside potential.

Potential for new assets once Tendrara further progressed

Once Sound completes its farm out to Managem, it will also transfer operatorship of the assets. While Sound will clearly remain involved with decision making within the JV, much of the day to day work will be done outside the company. As such, this could free up significant management time to pursue other potential opportunities.

It remains early days to speculate as to what this might look like, but we believe there could be potential to diversify the portfolio, potentially via new onshore assets in the MENA region, at some point in the future. We await further news.

Valuation and outlook

Our primary valuation method for E&P companies is a DCF-based NAV. Using this method, our core NAV measure is 2.3p, while our total risked NAV measure then gets to 4.0p – both substantially above current share price levels.

Going forward, we expect numerous items of news flow. Over the coming months we expect closure of the Managem farm out and receipt of the cash back costs, alongside updates on Tendrara Phase 1 going into first gas sales in mid-2025. Post farm out closure we also expect progression of Tendrara Phase 2 FEED studies, firming up the project configuration and full CAPEX, ahead of confirming the debt facility, gaining full approvals, and taking FID in 2025.

Alongside all of this, we expect drilling of the SBK-1 and M5 exploration/appraisal wells in 2025, providing high-impact news flow. Overall, this is a busy schedule, which could help the shares close some of the gap to our valuation.

Investment risks

Tendrara Phase 2 funding confirmation

In our view, the key outstanding element for Sound's planned Tendrara Phase 2 development is confirmation of full funding. The company has now made very significant progress here, with the Attijariwafa debt facility and Managem farm out. Sound is yet to close the farm out, and to fully close the project debt facility and confirm the exact quantum of CAPEX that is required (which will require completion of FEED). As such, while we cannot yet confirm that Phase 2 is fully funded, the building blocks for this are now firmly in place, and there is a route map for achieving it over the coming months.

Securing full Tendrara Phase 2 offtake

Sound has an existing contract with utility ONEE that covers around 37% of envisaged Tendrara Phase 2 gas sales, we calculate. As such, the company will need to find a home for the balance of its Phase 2 production. This could potentially be achieved via a combination of further long-term contracts and an expectation of selling a portion of gas on a merchant basis. Whatever combination Sound goes for here, this risk is mitigated by the strong underlying demand in Morocco for energy supplies, and the advantage of producing more of these domestically, discussed elsewhere in this note.

Potential for development project delays

Sound is executing a novel project for Morocco in its Phase 1 development, developing a new field via a micro-LNG concept, in a remote location. While there is the potential for project delays, both from a procurement and from a construction execution point of view, this is somewhat mitigated by the relatively small size of the project, use of existing wells, and relative simplicity of operating onshore. Once Phase 1 is established, the JV will have increased experience for executing Phase 2, with the major new elements there being the processing facilities and the GME pipeline connection, which is already agreed and permitted. As such, while as with any project there is the potential for delays, there are also various mitigants here.

ONHYM development CAPEX share

Sound currently holds 75% of its Tendrara licence (prior to closing of the farm out), with the balance held by ONHYM, the Moroccan state oil company and sector regulator. As part of its stake in the licence, ONHYM is contractually committed to paying its pro rata share of project development CAPEX. While in the past ONHYM has not always kept fully up with its JV payments, resulting in receivables for Sound, payments are up to date, and we do not expect this to be an issue going forward.

Micro-LNG facility lease payments

Sound is to lease its Phase 1 micro-LNG facility, and these payments make up c.85% of our US$17m/year gross Phase 1 OPEX forecast. Were Sound's Tendrara wells to underperform, the JV would still be liable for the full lease payments: there is only provision for lower payments if LNG sales are fully suspended, in which case 50% of the standard lease rate would still apply. This risk is partly mitigated by the plans to drill a third Phase 1 production well, and also by the Phase 2 development, which would provide additional cash flows, but also potentially new volumes.

Tendrara reservoir performance

From a production point of view, for the foreseeable future Sound is a single asset company, and as such the production performance of Tendrara is likely to be very important for the company's fortunes. This is particularly the case initially, where Sound will be producing from only two wells. Sound has historically drilled two wells on the Tendrara TE-5 horst, achieving test flow rates of 17mmcf/d and 32mmcf/d from the TE-6 and TE-7 wells respectively, both of which are to be used as producers for the ongoing Phase 1 development. As such, the existing drilling and flow testing all helps reassure on likely reservoir performance under production, and as the development progresses (Phase 1 is expected to be expanded to three wells, with an initial five wells to be used for Phase 2 and a further seven post first gas) the volume of wells will help diversify production risk.

Potential for further Morocco tax disputes

In 2023, Sound settled two tax disputes with the Moroccan authorities. One of these related to a purported historic asset transfer between Sound subsidiaries, while the other was related to a previous vendor funding deal with Schlumberger, with the total tax demanded calculated at US$23.95m. Sound settled both these disputes for US$2.5m, to be paid over six years and with payments back end loaded. While we think this is a good outcome for Sound, largely removing the dispute as a potential liability, it does imply that the Moroccan tax authorities could make similar unexpected demands in future. We have no reason to believe that any further disputes will be forthcoming, but simply believe this is worth investors being aware of.

Under the farm out, Managem will assume responsibility for the US$2.5m payments.

Exploration risk

Sound's main business focus is development of its existing TE-5 Horst Tendrara discovery, with plans for two new exploration/appraisal wells in 2025 planned to be covered by farminee Managem. The company has extensive exploration potential, across its wider Grand Tendrara licence, adjacent Anoual licence, and also Sidi Moktar licence, and while there is clearly risk if/when further exploration wells on these are brought forward, the existing discovered assets and progress made on development currently makes exploration a limited risk to the investment case.

Work commitments

Sound has several work commitments on its exploration licences. On the Grand Tendrara licence, it is currently committed to drill one well by the end of October 2024. There is also a well committed on Anoual and committed work on Sidi Moktar (new 2D seismic and testing of an existing well). Sound currently has licence extensions on Anoual to March 2028, and is in discussions to extend Sidi Moktar to October 2024 and the current Grand Tendrara period to September 2026, subject to government approval.

Risks here for Sound include losing the licences if work commitments are not performed, and potential cash penalties if this happens. This is mitigated by the Managem farm out covering wells on Grand Tendrara and Anoual, the potential for a farm out on Sidi Moktar, and our expectation of flexibility from the Moroccan regulator given the key role Sound performs in the Moroccan onshore oil and gas industry.

Convertible bonds

In June 2023 Sound announced a new convertible bond facility of up to £4.0m. As of late March 2024, there were outstanding issued bonds of £0.25m. The outstanding issued bonds have a conversion price to be set at a 25% premium to the five-day VWAP at the time of issue.

The bonds have a five-year term, and pay interest at 15% (cash or PIK, at Sound's election). There are various other terms, including that for any converted bonds, interest is rolled up as if they had been held to maturity and added to the shares issued, using a price for the interest portion of the lower of the fixed conversion price and the contemporary price at conversion.

While the variable conversion price of the interest element of the bonds creates a degree of uncertainty as to how many shares Sound may issue in meeting its commitments here, the outstanding amount of the bonds is now relatively small and hence of limited risk, in our view.

Corporate debt position

Sound carries corporate debt in the form of EUR25.32m of secured bonds (carried on the end 2023 balance sheet at £22.0m across current and non-current borrowings). These are due for full repayment of the outstanding balance when the bonds mature in December 2027. The company also has an US$18m debt facility with Tendrara Phase 1 offtake Afriquia Gaz, which we expect to be fully drawn in 2024. This matures in 2033, with repayment beginning from December 2028. In our view, Sound should be able to refinance these if required based on progressing its Phase 1 and 2 Tendrara developments.

Commodity price risk

Sound is exposed to gas price risk for both the implied value of its assets and for cash flows once these are onstream. This is substantially mitigated by the company's existing offtake contracts, which make up a large portion of its gas sales in the initial years, and which have structures preventing significant price fluctuation.

Work programme

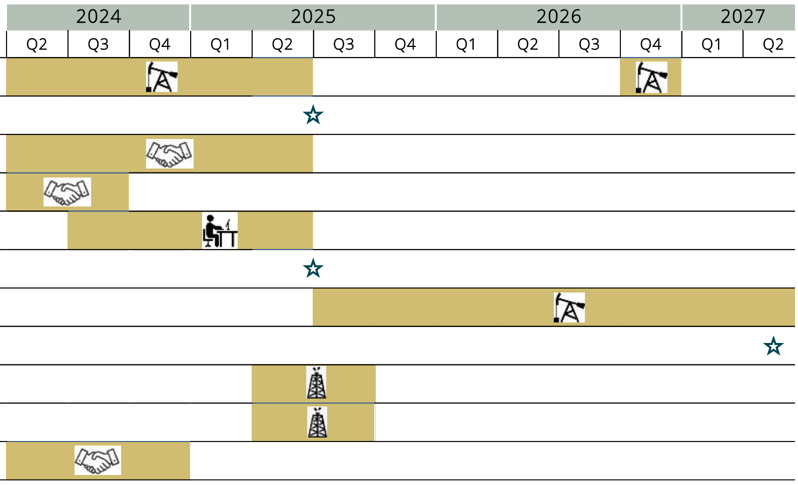
Sound's work programme is focussed on its Tendrara asset, both the ongoing Phase 1 development programme, and the larger Phase 2 development programme planned to follow this. For Phase 2, this includes securing the required funding to take FID, with project debt and a farm out both expected in order to achieve this.

Additionally, there are the SBK-1 and M5 exploration/appraisal wells.

This work programme should provide regular news flow, but also a defined route to first revenues, significant subsequent growth of these, and the underpinning of the value of the company's resources in the ground as a result. There is also high-impact exploration upside potential.

Sound Energy Estimated Work Programme

Activity	Asset	Status
Phase 1 development works	Tendrara	Ongoing
Phase 1 first gas/LNG sales	Tendrara	Ongoing
Phase 2 debt facility completion	Tendrara	Ongoing
Farm out completion	Tendrara	Ongoing
Phase 2 FEED work	Tendrara	Potential
Phase 2 FID	Tendrara	Potential
Phase 2 development works	Tendrara	Potential
Phase 2 first gas	Tendrara	Potential
SBK-1 exploration/appriasal well	Tendrara	Potential
M5 exploration well	Anoual	Potential
Farm out process	Sidi Moktar	Ongoing



Source: Zeus, Sound

Shareholder review

Sound's existing shareholder register includes Oil and Gas Investment Fund, which is a Morocco based fund which previously held a stake directly in the Tendrara licence, and exchanged this for Sound plc equity. The register also includes a significant stake for Afriquia Gaz, which as discussed elsewhere in this note is an LNG offtaker for Tendrara Phase 1 and corporate debt provider to Sound. There is also a large retail element.

Sound Energy Shareholders

Holder	Percentage Holding	Comment
Hargreaves Lansdown	16%	Nominee
Oil and Gas Investment Fund	13%	Morocco based fund, previously direct holder in Tendrara asset
Interactive Investor	10%	Nominee
Afriquia Gaz	9%	Tendrara Phase 1 development partner
Halifax Share Dealing	6%	Nominee
UBS	3%	Nominee
Barclays	3%	Nominee
Banco Fineco	2%	Nominee
Julius Baer	2%	Nominee

Source: Argus Vickers, Bloomberg, Sound

Project overview

Sound's asset portfolio and forward work programme are focussed on the company's Tendrara licence in northeast Morocco, where the company holds a 20% operated interest in partnership with Moroccan state company ONHYM and peer Managem (assuming the announced farm out is completed).

This is planned to be developed in two stages – an initial micro-LNG project, due onstream in 2024, and a larger project involving tie-back to the main Morocco GME gas pipeline, which is 120km to the north. This is aimed at commercialising a total of 305bcf of gross 2C discovered resources (based on sales gas volumes). Below we lay out the various project stages, offtake arrangements and funding, alongside taking a look at Sound's wider Morocco exploration portfolio.

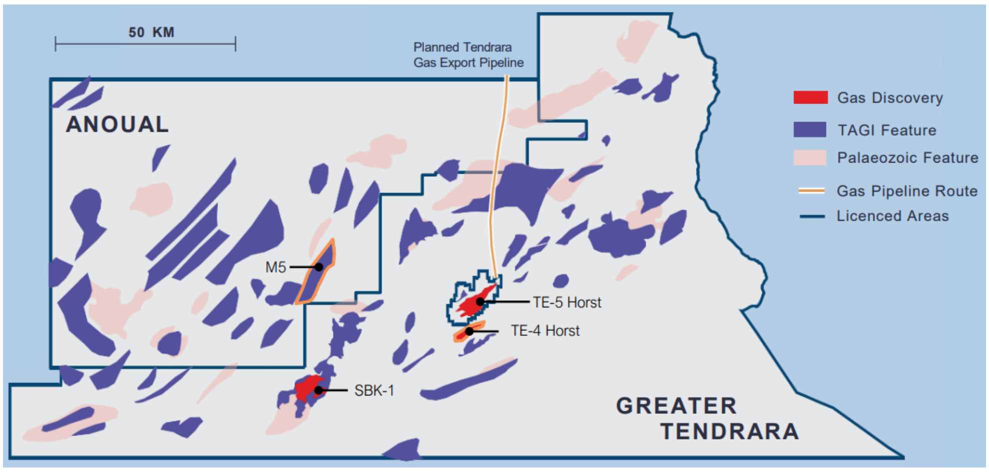
Tendrara licence background

Sound originally acquired its Tendrara licence in 2015 via a farm in with then holder OGIF (now a Sound plc shareholder as a result of a subsequent transaction). The TE-5 Horst discovery had originally been made by MPE in 2006 via the TE-5 well, and Sound drilled five exploration/appraisal wells over the period 2016-18. TE-5 is a structural trap based on a fault block in Triassic TAGI formation reservoir overlain with a Triassic salt seal, a play type not uncommon on the Algerian side of the border. TE-5 Horst wells are expected to require stimulation to flow, with previous tests carried out by Sound achieving rates of 17mmcf/d in TE-6 and 32mmcf/d in TE-7.

The company subsequently began focusing on development in 2019, assessing the potential for tie-back to the main Morocco GME pipeline (which until late 2021 exported Algerian gas into Spain, via Morocco) and latterly, as an initial phase, micro-LNG.

In addition to the TE-5 Horst discovery, there is exploration/appraisal potential on the wider Grand Tendrara block outside the development area, and on the next-door Anoual block.

Tendrara and Anoual Licence Map, Including Discoveries



Source: Sound

Phase 1 development – micro-LNG

Sound began development operations on its Tendrara Phase 1 development project in 2022. The project involves construction of facilities including a micro-LNG facility to underpin gas sales of 100mcma (10mmcf/d of sales gas). This is to be based on production from the existing TE-6 and TE-7 wells (which have previously flow tested at average rates of 17mmcf/d and 32mmcf/d respectively), plus drilling of a third well post first gas to maintain the production plateau.

Partners – project funding, offtake and EPC

Sound's Phase 1 project has been put together using a relatively innovative partnering approach in order to secure full project funding and underpin the project long term. This has been achieved via two key partnerships.

First, the micro-LNG plant itself is being designed and built by Italian company Italfluid. Importantly, Italfluid is footing the bill for the majority of the CAPEX for the plant, which Sound will then lease for the duration of the project. The deal includes various minimum uptime commitments from Italfluid, alongside minimum lease payments for Sound alongside an option to buy the facility outright. The main benefit of this for Sound, in our view, is the development CAPEX funding this essentially provides for the project, alongside Italfluid's expertise.

Second, Sound has struck an LNG offtake and corporate debt deal with Afriquia Gaz. Afriquia is a significant Moroccan company, which controls over 40% of the Moroccan LPG market and is a listed company with a market cap of around US$1.5bn. Sound has signed an LNG offtake contract with Afriquia for 10mmcf/d of sales gas for ten years, with a price range of US$6.0-8.3/mmbtu. Sound will sell to Afriquia ex plant, with Afriquia then responsible for transport and re-gas, based on its existing distribution and customer network (some customers will need to convert their facilities to switch fuel source). This underpins long term Phase 1 project offtake for Sound.

The flexibility of trucked LNG volumes means wide potential for the ultimate customers of Afriquia, helping underpin Tendrara Phase 1 but also, potentially, helping build national gas demand for Phase 2.

Tendrara LNG Offtake Potential

Source: Sound

Alongside this, Afriquia has also provided Sound with a corporate loan of US$18m (US$12.0m of which was drawn as of the end of 2023) for the Phase 1 project, and invested £2m in Sound plc equity, making it an 8.8% shareholder. The debt facility alongside other debt facilities, company cash, and the proposed Managem farm out mean we believe Sound should be fully funded for the Phase 1 project.

Current Phase 1 project progress

Current progress is that the LNG tank foundations have been completed, and the LNG facility itself is under construction by Italfluid. Design activities are also underway for the gas gathering system and upgrade of the existing TE-6 and TE-7 wellsites for production (workovers of these wells are currently underway).

During the rest of 2024, Sound expects progress to be made in particular on construction of various pieces of equipment from global suppliers, which will then be shipped for assembly at the project site. The company is also pursuing completion of the LNG storage tank. We model first LNG sales in mid-2025.

Phase 2 development – pipeline connection

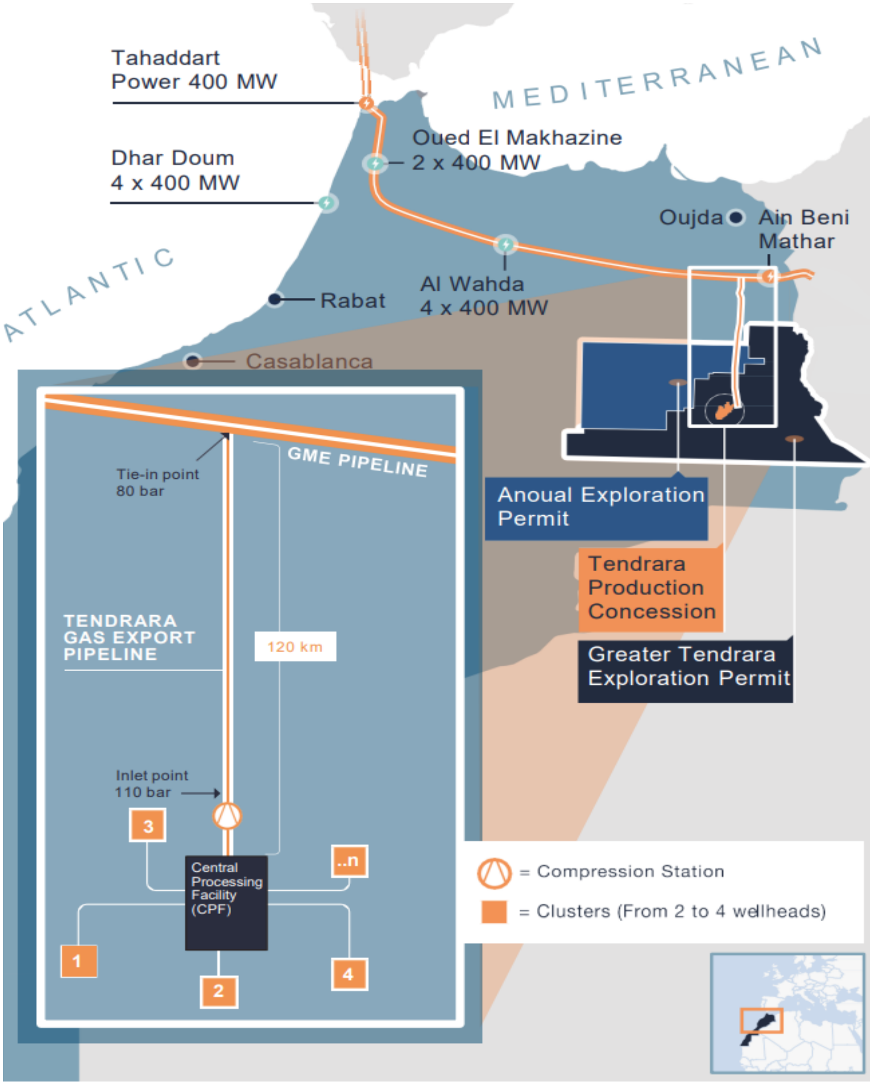
Total gross 2C resources in Tendrara TE-5 are 305bcf (based on sales gas volumes), of which we estimate 39bcf will be produced under the Phase 1 micro-LNG scheme. In order to commercialise the balance, Sound is progressing a much larger project, and this would include a pipeline connection from Tendrara to Morocco's main GME pipeline, which itself runs past major Morocco gas demand centres, and can facilitate export into Spain.

Phase 2 development configuration

The plan for Tendrara Phase 2 is for production from five new horizontal wells prior to first gas, with a further seven drilled subsequently, and again using fracking to improve flow rates as with Phase 1. We would expect facilities to be sized for 48mmcf/d of raw gas (42mmcf/d of sales gas), with offtake via a planned connection to the regional GME pipeline. We would expect this project to develop the balance 265bcf of gross 2C sales gas in the TE-5 Horst discovery.

Total CAPEX for phase 2 is currently expected to be US$330m gross, and this includes drilling, facilities, gas gathering and the GME pipeline tie-in. Importantly, in our view, the Phase 2 facilities and pipeline could also be subsequently upgraded for tied-in production from any other discoveries Sound may subsequently prove up in the area, including potentially SBK-1, M5, or TE-4. This could help sustain production longer term while also potentially generating further value from the installed infrastructure.

Tendrara Phase 2 Development Configuration and Offtake Route



Source: Sound

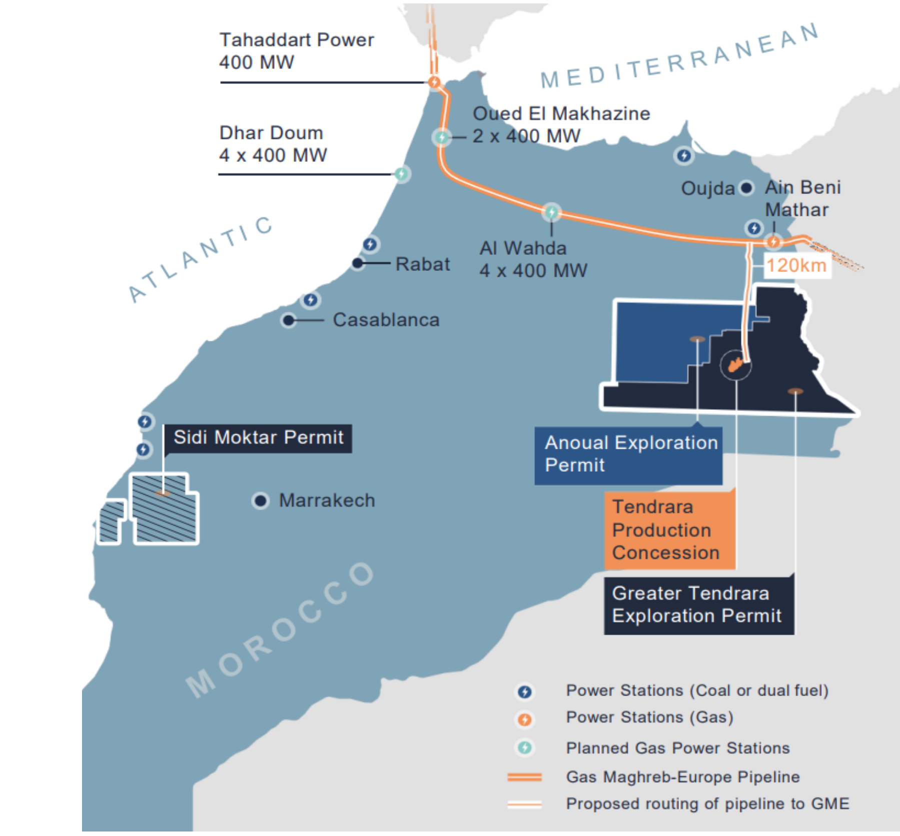
Phase 2 offtake – initial contract in place

Sound has already agreed a 10-year take-or-pay offtake agreement with Moroccan state utility ONEE for a minimum offtake volume of 29mmcf/d of sales gas, at what the company describes as "attractive local pricing" (we assume overall prices above US$8/mcf in our modelling). This is expected to commercialise 128bcf of gross raw gas (112bcf of sales gas), leaving 175bcf of gross raw gas (153bcf sales gas) yet to be potentially contracted. We would expect existing and potential further contracted volumes to help underpin the funding structure for Phase 2, though Sound could also take advantage of potentially higher prices by selling into the merchant market too.

Sound's existing Tendrara Phase 2 offtake contract with ONEE, and any additional contracts, are based on underlying gas demand in the country. Morocco has two main gas fired power stations: Tahaddart (400MW - around 50mmcf/d of gas) and Ain Beni Mathar (472MW, including 20MW of solar - around 50mmcf/d of gas). These were both historically supplied with gas from the GME pipeline, which came from Algeria and was transited into Spain, with Morocco taking some gas as part payment for transport fees (for example, in 2021 Moroccan power generation gas demand was 25bcf, of which 7bcf came from Algeria transit fees, and 18bcf was also purchased from Algeria). The Algerian flows stopped in late 2021, however, with Algeria transporting gas into Europe via alternative routes, and Morocco is currently receiving limited gas supplies from Spain for the running of its gas fired power plants.

As such, material new gas production from Tendrara via Phase 2 development could represent an important new supply for these plants, alongside several others potentially being planned (Oued El Makhazine 800MW and Al Wahda 1.6GW, both on the GME pipeline, and Dhar Doum 1.6GW on the west coast). There is also the existing Kenitra power station, which is currently run using fuel oil (315MW, around 40mmcf/d of gas equivalent). While we are likely to also see significant new volumes in the coming years from Chariot's Anchois development (likely up to 105mmcf/d), there is still plenty of potential gas demand for volumes from Tendrara, with the significant ONEE contract already secured by Sound.

Morocco Power Station Gas Demand Backdrop



Source: Sound

Potential for gas exports into Spain

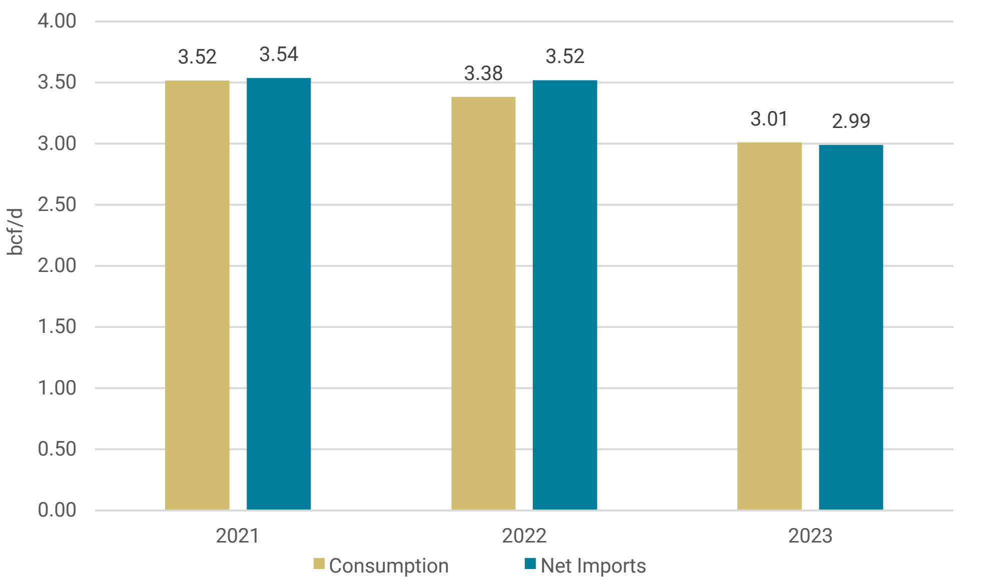
While the most obvious and immediate market for Sound's Phase 2 Tendrara gas is existing and potential upcoming new demand in Morocco, there is also wider potential. The main purpose of the GME pipeline was to allow Algeria to export gas into Spain, with Morocco then allowed to take some of the gas as a transit fee. As mentioned above, in 2021 Moroccan power generation gas demand was 25bcf, of which 7bcf came from Algeria transit fees, and 18bcf was also purchased from Algeria.

Algeria gas exports via the GME pipeline ceased in late 2021, with Algeria now exporting via other routes, including LNG, and its GME exports are not generally expected to resume. This leaves a substantial opportunity for Sound not only in Morocco itself, but also for the potential resumption of exports into Spain.

Spain consumed 3.4bcf/d of gas in 2022 and 3.0bcf/d in 2023, of which less than 1% was accounted for by domestic production, meaning essentially 100% was via pipeline and LNG imports (net imports were actually ahead of consumption, implying a degree of movement into storage). While some of this was still from Algeria (29% in 2023, from 24% in 2022), via the direct Medgaz pipeline and LNG, this does not change the fact that the GME represents a significant potential export corridor into Spain from Morocco that is not being used (indeed gas from LNG is actually currently being re-exported from Spain to Morocco via the GME in order to run the Tahaddart and Ain Beni Mathar power plants).

As such, there should be significant potential for gas exports to Spain to absorb Tendrara Phase 2 production if required, particularly initially if domestic Moroccan projects take time to come through.

Spain Gas Consumption and Net Imports



Source: CORES

Phase 2 funding – project debt and farm out both being progressed

Sound is in the process of securing full funding for Phase 2 of its Tendrara development, recently making material progress both on project debt and a farm out. Gross CAPEX (including further drilling post first gas) is currently expected to be around US$330m, of which we expect US$249m to be required prior to first gas.

Sound is currently in a process with local Moroccan bank Attijariwafa targeting a syndicated project debt facility to cover around US$237m (2.365bn Moroccan dirhams) or 65% of project CAPEX. Sound announced in 2023 that it had received a binding conditional offer of the debt facility from Attijariwafa, subject to various conditions (principally gaining full clearances, confirming project CAPEX post FEED, and achieving the balance of funding), and we look for further progress here going forward.

Sound also recently announced a farm out of Tendrara to Morocco-based multinational company Managem. The proposed farm out with Managem includes: Managem providing carry of up to US$24.5m for Sound's net share of Tendrara Phase 2 equity CAPEX; Managem paying Sound cash back costs for Tendrara Phase 1 and 2, worth US$13.0m; a US$1.5m cash payment within one year of Phase 2 first gas; carry of US$3.6m on the SBK-1 appraisal well and US$2.6m on the M5 exploration well (expected to fully fund both wells). Managem takes 55% of the Phase 1 and 2 development area, and 47.5% of the wider Grand Tendrara exploration licence and next door Anoual exploration licence.

In addition to the above, the Managem farm out also sees Managem assume full responsibility for the 12-year 8-11% net profit interest that Schlumberger holds in Tendrara – this provides a very helpful boost for Sound cash flows and value. The US$2.5m Morocco tax settlement liability also transfers to Managem.

This all leaves Sound in a strong funding position for its planned projects. The current estimate for Tendrara Phase 2 CAPEX is US$330m gross, though we would only expect US$249m of this to be spent prior to first gas. At 65%, the Attijariwafa debt facility would cover US$162m (based on pre first gas CAPEX, we believe a higher leverage ratio may be possible on greater cost confidence as a result of FEED), leaving US$87m. Moroccan state oil company and sector regulator ONHYM holds 25%, which then leaves US$65m for Sound and Managem. Managem would then cover US$72.5m under the farm out (US$48m of Managem equity CAPEX, and up to US$24.5m of Sound carry), which should leave the Phase 2 project fully funded, subject to the outcome of Phase 2 FEED costs estimates.

Tendrara Phase 2 Funding Progress

	US$m
FUNDING POTENTIALLY REQUIRED	
Tendrara Phase 2 gross CAPEX (current estimate)	330
Tendrara Phase 2 gross CAPEX pre first gas (current estimate)	**249**
FUNDING IDENTIFIED	
Attijariwafa proposed debt facility (@ 65% leverage on pre first gas CAPEX)	162
ONHYM equity CAPEX (25% interest)	22
Managem carry for Sound	24.5
Managem equity CAPEX (55% interest)	48
Total Available Funding	**256.5**

Source: Zeus, Sound

Overall, very significant progress has already been made towards achieving FID on Phase 2. Going forward, we look for progression of FEED in order to fully bottom out the exact development plan and expected CAPEX, alongside gaining full approvals. The successful progression of both the debt facility and the farm out significantly underpin funding for the project, and provide a clear route to achieving full funding, in conjunction with the technical work. We look for FID to be reached during 2025.

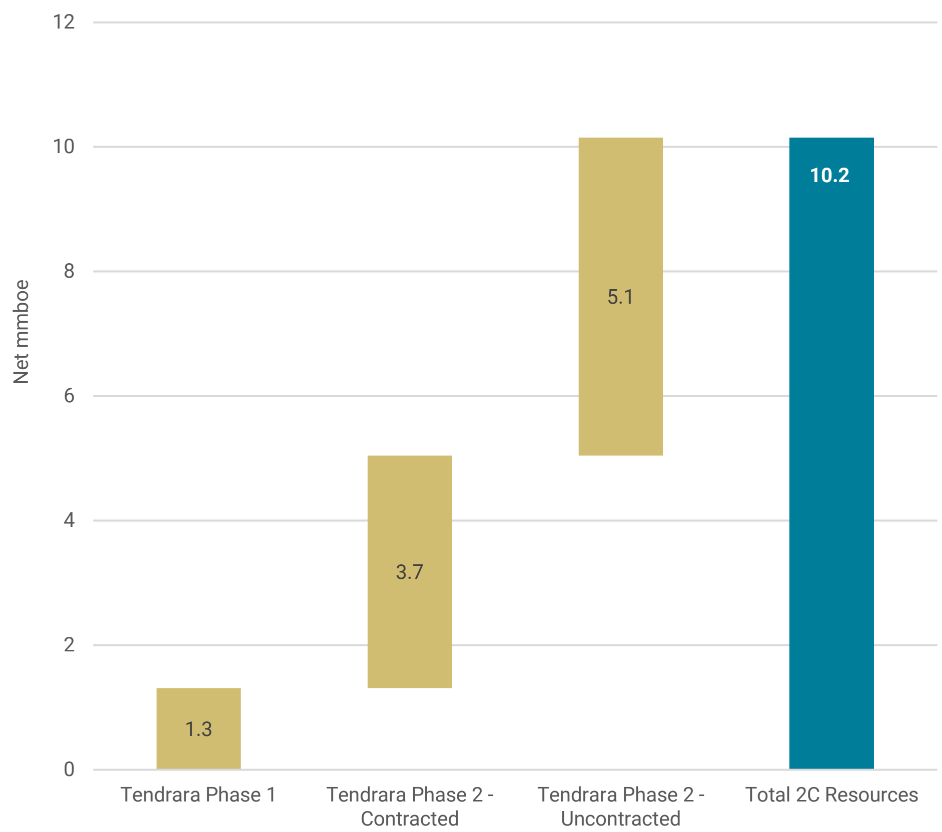
Tendrara resources breakdown

Sound's 20% Tendrara position contains significant existing discovered 2C resources of 10.2mmboe (61bcf) net, based on sales gas volumes. We expect these to be commercialised via the company's Phase 1 and 2 developments.

The underway Phase 1 development will commercialise 1.3mmboe (8bcf) of net 2C (which at some point will be upgraded to 2P reserves) based on the agreed 10-year LNG offtake contract agreed with Afriquia Gaz.

For Phase 2, 3.7mmboe (22bcf) of net 2C is covered by the existing offtake contract with ONEE, with a further 5.1mmboe (31bcf) still to be allocated, potentially via another contract and/or sold on a merchant basis, we would surmise.

Sound Net 2C Resources Breakdown, Based on Sales Gas (mmboe)



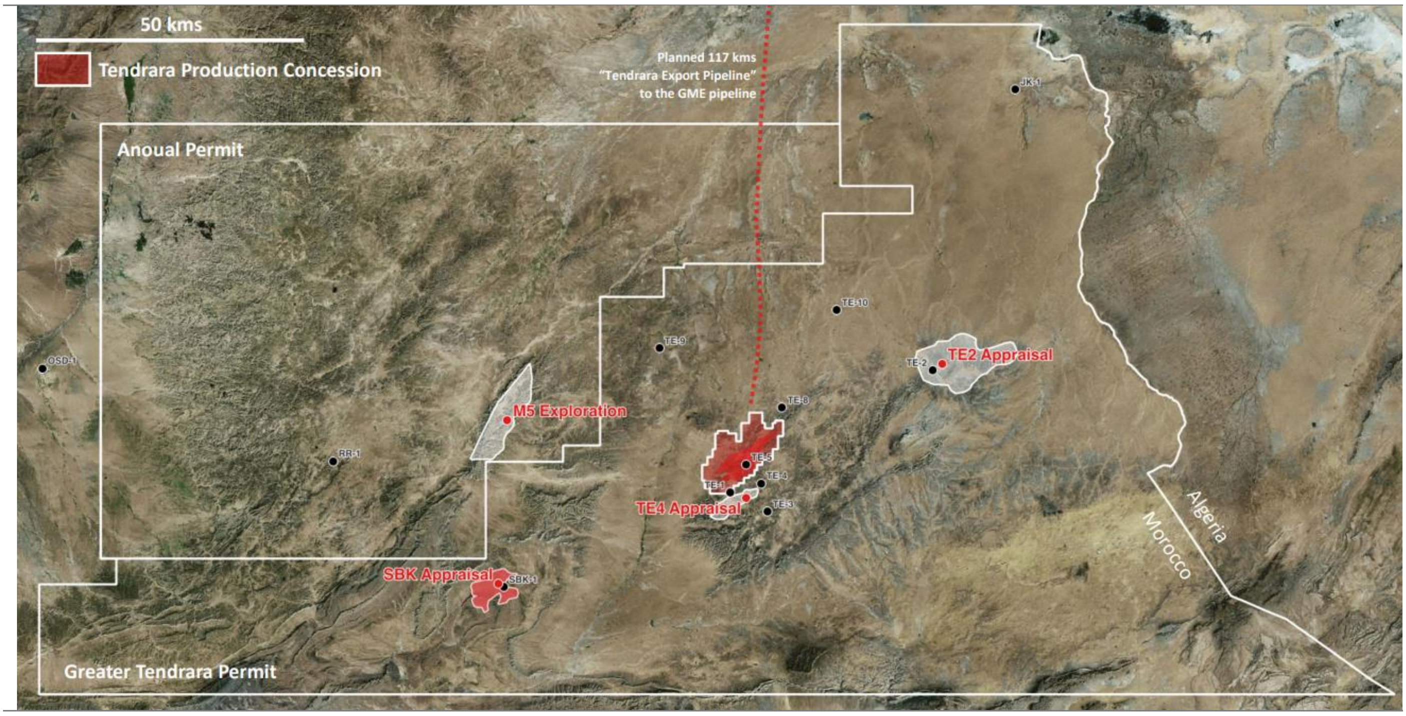
Source: Sound, Zeus

Exploration potential

Grand Tendrara

Sound holds assets with substantial exploration potential around its focus Tendrara Phase 1 and 2 development projects. Surrounding these the company holds the Grand Tendrara exploration licence (Sounds 27.5% post the proposed Managem farm out), which contains numerous opportunities.

Sound Exploration Map



Source: Sound

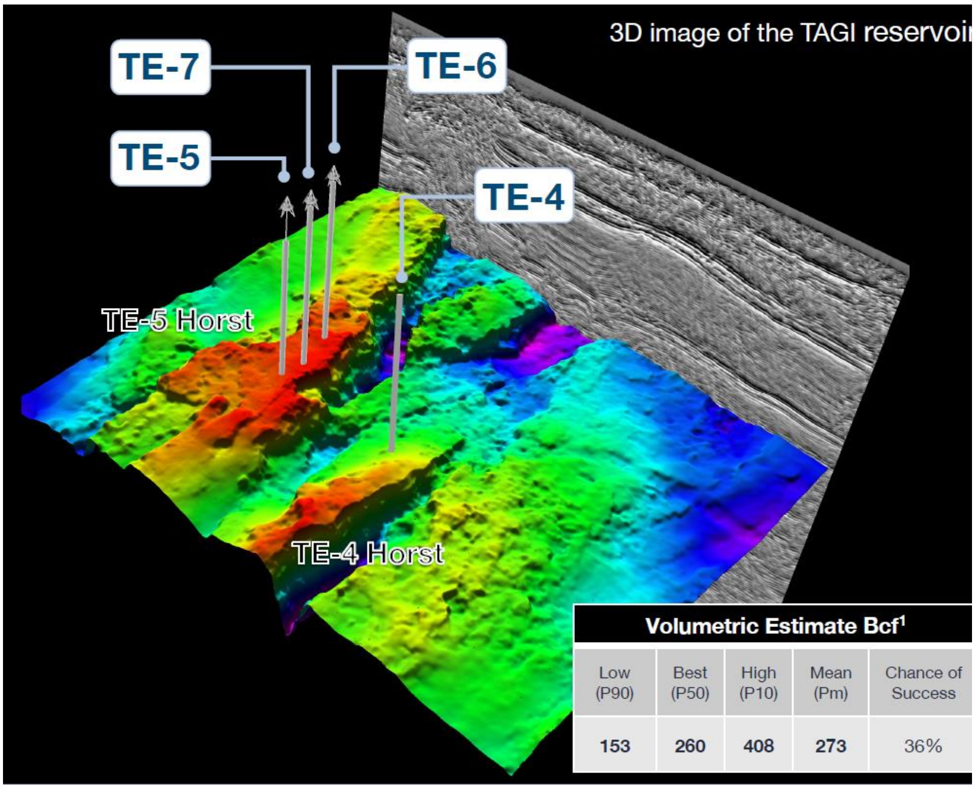
The Grand Tendrara licence contains the SBK-1 discovery made in 2000 by Lone Star Energy (an associate of Skidmore Energy). SBK-1 was flow tested at rates up to 4.4mmcf/d post acidization (but without fracking). Sound is planning to drill an exploration/appraisal well in 2025, funded by the Managem farm out. On success, SBK-1 could represent future development potential beyond Tendrara Phase 1 and 2, leveraging the planned GME pipeline connection. SBK-1 is prognosed to contain 130bcf of gross P50 gas in place (we allow for gross recoverable sales gas of 15mmboe in our modelling).

As such, SBK-1 provides a drilling catalyst for Sound, but also potential further development volumes beyond Tendrara Phases 1 and 2.

Grand Tendrara also contains TE-4. The TE-4 fault block was drilled (down dip) in 2006 by Maghreb Petroleum Exploration, encountering gas shows but not flowing on test. TE-4 Horst is prognosed to contain 260bcf of gross P50 gas in place (we allow for gross recoverable sales gas of 30mmboe in our modelling), and if successfully drilled in the coming years could offer significant potential additional development volumes.

The current Grand Tendrara license phase runs until October 2024, though Sound is in discussions to move into the next license phase and extend this to September 2026. In our view, the Morocco regulator is likely to offer some flexibility here given Sound's important role in the country's oil and gas industry.

TE-4 Horst Image, Alongside TE-5 Horst



Volumetric Estimate Bcf[1]				
Low (P90)	Best (P50)	High (P10)	Mean (Pm)	Chance of Success
153	260	408	273	36%

Source: Sound

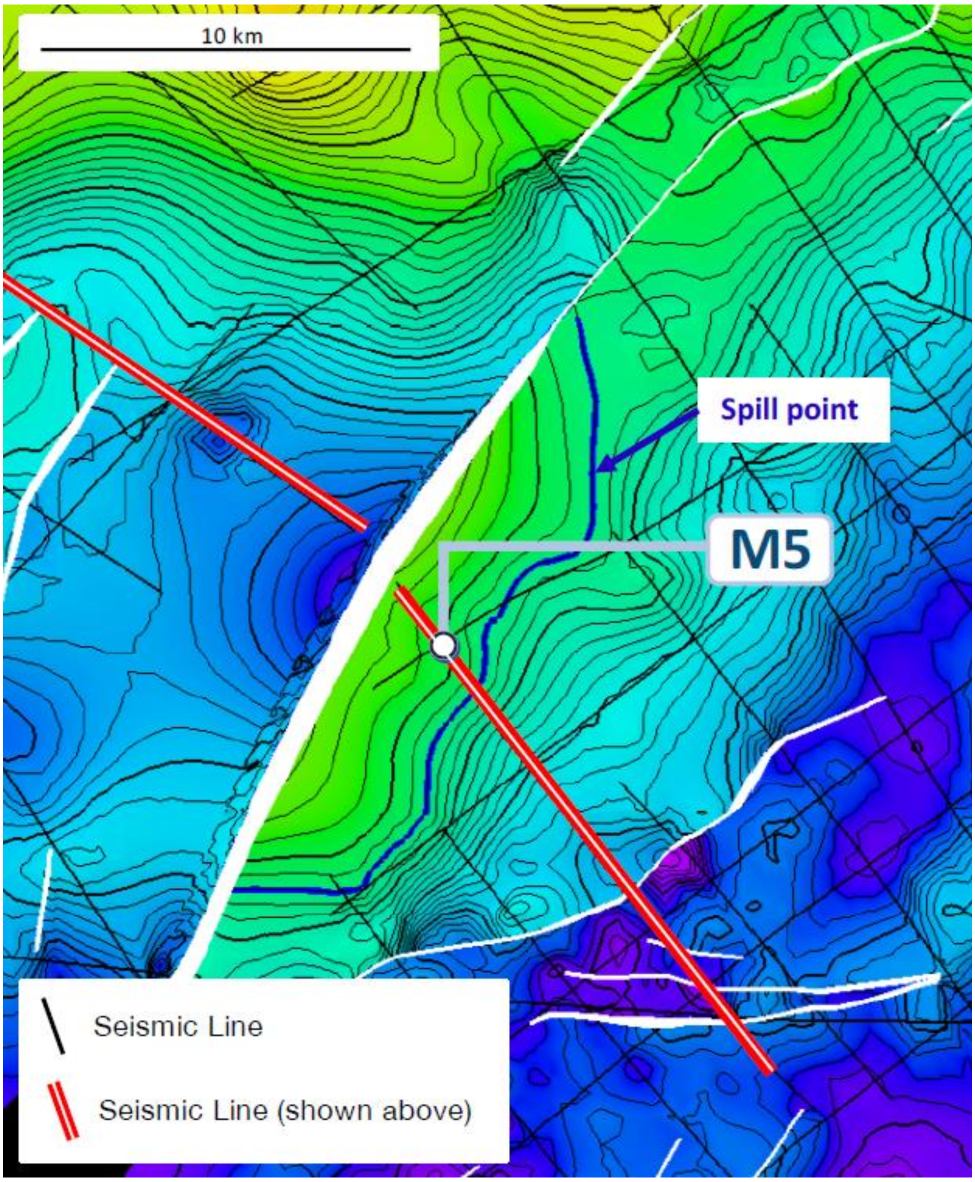
Anoual

Next-door to Tendrara, Sound also holds a 75% operated interest in the Anoual exploration block. Numerous surface features potentially similar to the TE-5 discovery have also been identified on Anoual, the largest of which is M5. This has benefitted from new seismic acquired in 2018, allowing M5 to be defined and matured as a drilling prospect, and which is prognosed to contain 800bcf of gross P50 gas in place (we allow for 93mmboe of gross recoverable sales gas in our modelling).

As such, M5 could be a significant resource, larger than the existing Tendrara development project and very material for Sound. Sound is also planning an exploration well here in 2025, again funded by the Managem farm out, with any subsequent development also able to leverage the planned GME pipeline connection.

The current licence phase runs to March 2028, giving Sound plenty of running room here.

Anoual M5 prospect



Source: Sound

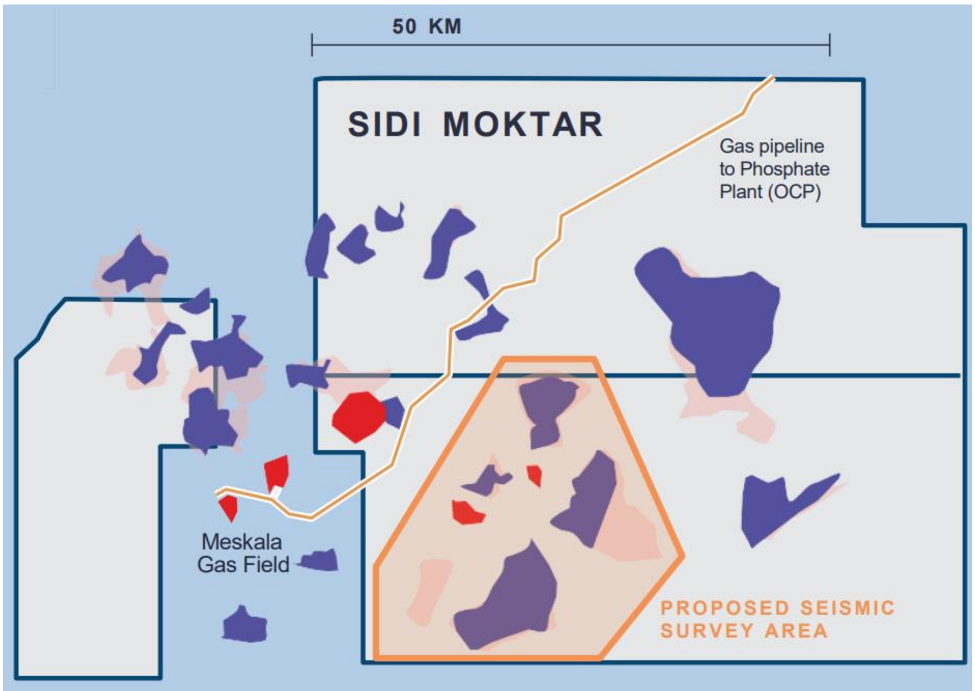
Sidi Moktar

Sound also holds exploration acreage in the south-west of Morocco, via a 75% operated interest in the Sidi Moktar licence. The licence surrounds the Meskala field (operated by ONHYM), which produces from subsalt Triassic reservoir, while also underpinning gas export infrastructure for supplies to local industry.

Sound believes this subsalt play is likely to be present on its Sidi Moktar licence, and the next stage here is the acquisition of new 2D seismic data in order to work up new prospects for drilling at this level. Activity here could help diversify both Sound's work programme and, in time, the company's production portfolio, potentially supported by the existing local infrastructure.

Sound is running an ongoing farm out process focused on securing partner funding in order to carry out this work programme. The current licence phase runs to October 2024, and a further licence extension, subject to government approvals, could potentially drive progress on a farm out and unlock a new work programme for Sound.

Sidi Moktar licence map



Source: Sound

Financial forecasts

We have constructed financial forecasts for Sound based on the underway Tendrara Phase 1 development, and planned Phase 2 development. We make various assumptions, as follows:

Gas production

We allow for sales gas from Tendrara Phase 1 from mid-2025, ramping up to a gross plateau rate of 10mmcf/d based on the Afriquia Gaz contract.

We then allow for production from Phase 2 from mid-2027, ramping up to a gross plateau rate of 42mmcf/d of sales gas. This is based on the existing ONEE contract (which accounts for 29mmcf/d of our assumption), and our assumption of additional sales, potentially sold via other contracts and/or on a merchant basis, to fully develop the 2C resources.

We appreciate that inclusion of Phase 2 volumes is more speculative than those from Phase 1, with this element of the project yet to reach FID. We include it in our forecasts, however, given the significant progress already made on development planning, approvals and funding.

Sound Energy Tendrara interest 20%

We assume that the proposed Managem farm out is completed, giving Sound a 20% interest for both Tendrara production and development costs.

Gas pricing

For Phase 1 sales, we use the framework from the Afriquia Gaz offtake contract. Under this, prices can range from US$6.0/mmbtu up to US$8.3/mmbtu, based on movements in major international gas prices (TTF and Henry Hub). Under our base case forecasts, prices for Phase 1 production do not fall below US$8.0/mcf.

For Phase 2 sales, for sales to ONEE (29mmcf/d gross) under the contract our modelling assumes prices a little higher than those we assume for Phase 1 sales. For the balance (13mmcf/d gross while the contract is in effect) we assume these are sold into the market at prices equivalent to European prices (where we use TTF as a proxy).

Royalty and Schlumberger net profit interest

Under Morocco’s fiscal terms, Sound will pay a royalty on its Tendrara gas revenues of 5.0%.

Under a previous deal, Sound is currently also liable for payment of a net profit interest to former JV partner Schlumberger. This ranges from 8-11%, which acts on gross (100%) of net profits from Tendrara (which we have modelled as revenues less OPEX less royalty and tax less depreciation less interest on project debt). Under the Managem farm out, Managem will assume full responsibility for this, meaning Sound will make no payments to Schlumberger from its net Tendrara cash flows.

OPEX

For Phase 1 we assume OPEX is fixed at around US$17m/year gross, and is largely accounted for by the lease cost of the LNG facility (c.85%).

For Phase 2, we assume OPEX is again mostly fixed (with a small variable element). We assume this is lower than for Phase 1, however, given the lack of the lease cost, helping reduce unit OPEX for Tendrara as a whole once Phase 2 comes onstream.

In our forecasts, we include 100% of the Phase 1 lease costs in our OPEX charge (as opposed to capturing any of these as a finance lease).

CAPEX

We assume Phase 1 CAPEX continues over 2024, 2025 and into 2026 to account for further drilling.

We assume Phase 2 CAPEX begins being spent in 2025, with a total gross CAPEX number of US$325m. Of this, we allow for US$244m to be spent over 2025 to first gas in 2027, with the balance spent over the years post first gas as additional production wells are drilled. The Managem Phase 2 development carry is included as a deduction from our Sound CAPEX number.

We assume all CAPEX for the SBK-1 and M5 wells is covered by the Managem farm out, and do not allow for any CAPEX on Sidi Moktar in our forecasts.

Tax

Morocco has one of the most favourable tax regimes for oil and gas globally. Alongside the royalty mentioned above, there is a ten-year holiday granted from first production on corporate tax, after that it is 31% (acting on PBT). There is an additional 5% solidarity contribution tax (also acting on PBT): there is no holiday for this, but under current legislation it is only in place until the end of 2025.

Interest

Sound has three existing debt facilities: EUR25.32m of secured bonds (maturing in December 2027); a US$18m loan note with LNG offtaker Afriquia Gaz (US$12.0m drawn at the end of 2023); and £0.25m of convertible bonds issue during 2023. We include all of these in our modelling, and assume the Afriquia Gaz facility is fully drawn.

In addition, we also include drawings and interest under the potential Attijariwafa Bank debt facility, in order to fund Phase 2 Tendrara development. In our modelling, we assume the facility is ultimately able to be drawn to cover a higher percentage of Tendrara Phase 2 project CAPEX than the 65% mooted in the initial offer from Attijariwafa.

Base case forecasts

We lay out our base case Sound forecasts below. Later in this note we also have a look at our base case numbers, alongside some alternative scenarios.

Income Statement

Year to Dec		2021A	2022A	2023A	2024E	2025E	2026E
US$/£	US$	1.38	1.24	1.24	1.25	1.25	1.30
Oil Production	mbbl/d	--	--	--	--	--	--
Gas Production	mmcf/d	--	--	--	--	0.9	2.1
Total Production	**mboe/d**	**--**	**--**	**--**	**--**	**0.16**	**0.34**
Average Brent Oil Price	US$/bbl	70.5	99.0	82.1	80.0	70.0	65.0
Average Henry Hub Gas Price	US$/mcf	3.7	6.6	2.5	1.5	2.4	2.5
Average TTF Gas Price	US$/mcf	13.9	32.6	12.9	8.9	10.1	9.5
Sound Phase 1 Gas Price	US$/mcf	--	--	--	8.0	8.1	8.1
Sound Phase 2 Gas Price (Contracted Portion)	US$/mcf	--	--	--	8.3	8.3	8.3
Average Sound Blended Gas Price	US$/mcf	--	--	--	--	8.1	8.1
Unit OPEX (inc Leases)	US$/boe	--	--	--	--	(29.6)	(27.0)
Sales	**£m**	**--**	**--**	**--**	**--**	**2.2**	**4.7**
Other Income	£m	0.2	0.0	0.0	--	--	--
Royalty	£m	--	--	--	--	--	--
OPEX (inc Leases)	£m	--	--	--	--	(1.4)	(2.6)
Depreciation	£m	(0.2)	(0.1)	(0.2)	--	(0.8)	(1.6)
Gross Profit	**£m**	**0.1**	**(0.1)**	**(0.2)**	**--**	**0.1**	**0.4**
G&A	£m	(1.5)	(2.1)	(2.0)	(1.9)	(1.5)	(1.5)
Share Based Payments	£m	(0.0)	(1.0)	(0.2)	(0.2)	(0.2)	(0.2)
Exploration Costs	£m	--	--	--	--	--	--
Operating Profit	**£m**	**(1.5)**	**(3.1)**	**(2.4)**	**(2.1)**	**(1.7)**	**(1.3)**
EBITDA	**£m**	**(1.3)**	**(3.0)**	**(2.2)**	**(2.1)**	**(0.9)**	**0.3**
EBITDAX	**£m**	**(1.3)**	**(3.0)**	**(2.2)**	**(2.1)**	**(0.9)**	**0.3**
Finance Revenue	£m	0.0	0.0	0.0	0.0	0.0	0.0
Finance Costs	£m	(2.3)	(1.4)	(2.0)	(2.1)	(2.3)	(2.8)
Adjusted PBT	**£m**	**(3.8)**	**(4.6)**	**(4.3)**	**(4.2)**	**(4.0)**	**(4.1)**
FX	£m	2.2	5.5	(2.8)	--	--	--
Exceptionals	£m	4.0	5.7	--	--	--	--
Reported PBT	**£m**	**2.5**	**6.6**	**(7.2)**	**(4.2)**	**(4.0)**	**(4.1)**
Tax	£m	(0.0)	(1.6)	(0.0)	--	--	--
Adjusted PAT	**£m**	**(3.8)**	**(6.2)**	**(4.3)**	**(4.2)**	**(4.0)**	**(4.1)**
Reported PAT	**£m**	**2.4**	**5.0**	**(7.2)**	**(4.2)**	**(4.0)**	**(4.1)**
Adjusted Diluted EPS	**p**	**(0.26)**	**(0.35)**	**(0.23)**	**(0.21)**	**(0.20)**	**(0.21)**
Adjusted Basic EPS	p	(0.26)	(0.35)	(0.23)	(0.21)	(0.20)	(0.21)
Reported Basic EPS	p	0.16	0.28	(0.38)	(0.21)	(0.20)	(0.21)
Reported Diluted EPS	p	0.16	0.28	(0.38)	(0.21)	(0.20)	(0.21)

Source: Sound, Zeus

Balance Sheet

Year to Dec		2021A	2022A	2023A	2024E	2025E	2026E
Non-Current Assets							
Property, Plant and Equipment	£m	139.7	163.4	157.9	156.7	161.7	175.2
Intangible Assets	£m	31.6	36.0	35.0	35.0	35.0	37.1
Prepayments	£m	--	4.3	5.1	5.1	5.1	5.1
Interest in Badile Land	£m	0.7	0.6	--	--	--	--
Total Non-Current Assets	**£m**	**171.9**	**204.3**	**198.0**	**196.8**	**201.8**	**217.4**
Current Assets							
Inventories	£m	0.9	1.0	0.9	0.9	0.9	0.9
Other Receivables	£m	0.9	2.8	0.9	0.9	0.9	0.9
Prepayments	£m	0.0	0.1	1.3	1.3	1.3	1.3
Cash and Short-Term Deposits	£m	2.9	3.9	3.0	6.3	4.0	4.0
Total Current Assets	**£m**	**4.7**	**7.8**	**6.2**	**9.5**	**7.2**	**7.2**
TOTAL ASSETS	**£m**	**176.6**	**212.1**	**204.2**	**206.3**	**209.0**	**224.6**
Non-Current Liabilities							
Lease Liabilities	£m	--	0.1	--	--	--	--
Tax Liabilities	£m	--	1.5	1.4	1.4	1.4	1.4
Loans and Borrowings	£m	20.0	29.1	33.3	36.8	43.3	62.7
Total Non-Current Liabilities	**£m**	**20.0**	**30.7**	**34.7**	**38.2**	**44.7**	**64.1**
Current Liabilities							
Trade and Other Payables	£m	1.5	1.9	2.5	2.5	2.5	2.5
Tax Liabilities	£m	--	0.1	0.2	0.2	0.2	0.2
Lease Liabilities	£m	--	0.2	0.1	0.1	0.1	0.1
Loans and Borrowings	£m	--	1.1	--	--	--	--
Total Current Liabilities	**£m**	**1.5**	**3.3**	**2.8**	**2.8**	**2.8**	**2.8**
TOTAL LIABILITIES	**£m**	**21.5**	**34.0**	**37.5**	**41.0**	**47.5**	**66.9**
Equity							
Share Capital and Share Premium	£m	34.6	38.6	39.9	42.6	42.9	43.1
Shares to be Issued	£m	--	0.4	0.4	0.4	0.4	0.4
Retained Earnings	£m	123.9	129.0	122.4	118.2	114.3	110.2
Warrant Reserve	£m	1.5	1.6	2.1	2.1	2.1	2.1
Foreign Currency Reserve	£m	(4.9)	8.4	1.9	1.9	1.9	1.9
Total Shareholders' Equity	**£m**	**155.1**	**178.1**	**166.7**	**165.2**	**161.5**	**157.7**
TOTAL LIABILITIES AND EQUITY	**£m**	**176.6**	**212.1**	**204.2**	**206.3**	**209.0**	**224.6**

Source: Sound, Zeus

Cash Flow

Year to Dec		2021A	2022A	2023A	2024E	2025E	2026E
Operating Cash Flow							
Reported PBT	**£m**	**2.5**	**6.6**	**(7.2)**	**(4.2)**	**(4.0)**	**(4.1)**
Finance Revenue	£m	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Change in Drilling Inventories	£m	0.0	(0.1)	0.0	--	--	--
Change in Receivables and Prepayments	£m	0.5	(2.1)	0.7	--	--	--
Change in Accruals and S-T Payables	£m	(0.8)	0.2	(0.3)	--	--	--
Reversal of Impairment	£m	(4.0)	(5.7)	--	--	--	--
Impairment of Interest in Badile Land	£m	0.1	0.1	0.1	--	--	--
Depreciation	£m	0.2	0.1	0.2	--	0.8	1.6
Share-Based Payments	£m	0.0	1.0	0.2	0.2	0.2	0.2
Interest Costs and FX	£m	0.1	(4.0)	4.8	2.1	2.3	2.8
Interest Received	£m	0.0	0.0	0.0	0.0	0.0	0.0
Tax Paid	£m	(0.0)	(0.0)	(0.1)	--	--	--
Operating Cash Flow	**£m**	**(1.6)**	**(3.9)**	**(1.5)**	**(1.9)**	**(0.6)**	**0.6**
Unit OCF	**US$/boe**	**--**	**--**	**--**	**--**	**(12.9)**	**5.9**
Investing Cash Flow							
Development CAPEX	£m	(1.0)	(5.8)	(2.3)	(7.0)	(5.8)	(15.1)
Exploration CAPEX	£m	(0.5)	(0.4)	(0.7)	--	--	(2.1)
Acquisitions	£m	0.2	--	--	8.2	--	--
Investing Cash Flow	**£m**	**(1.2)**	**(6.2)**	**(2.9)**	**1.2**	**(5.8)**	**(17.2)**
Free Cash Flow	**£m**	**(3.9)**	**(10.6)**	**(5.1)**	**(9.9)**	**(7.7)**	**(17.9)**
Unit FCF	**US$/boe**	**--**	**--**	**--**	**--**	**(166.9)**	**(185.9)**
Financing Cash Flow							
Net Equity Issue	£m	2.0	3.7	--	--	--	--
Net Borrowings	£m	--	7.2	4.4	5.0	5.4	17.9
Interest Paid	£m	(0.9)	(0.4)	(0.4)	(1.1)	(1.3)	(1.3)
Leases	£m	(0.0)	(0.1)	(0.2)	--	--	--
Financing Cash Flow	**£m**	**1.1**	**10.4**	**3.8**	**3.9**	**4.1**	**16.6**
Cash at Beginning of Year	£m	4.5	2.9	3.9	3.0	6.3	4.0
Net Change in Cash	**£m**	**(1.7)**	**0.3**	**(0.6)**	**3.3**	**(2.3)**	**--**
FX	£m	0.1	0.6	(0.2)	--	--	--
Cash at End of Year	**£m**	**2.9**	**3.9**	**3.0**	**6.3**	**4.0**	**4.0**
NET CASH/(DEBT)	**£m**	**(17.1)**	**(26.3)**	**(30.3)**	**(30.5)**	**(39.3)**	**(58.7)**

Source: Sound, Zeus

Forecast scenarios

Below we lay out our base case forecasts (discussed above), alongside several additional scenarios.

On gas pricing, we have run:

- Higher Henry Hub and TTF gas prices
- Lower Henry Hub and TTF gas prices

both of which show a relative insensitivity to market gas prices as a result of Sound's expected contracted volumes, meaning the company is relatively insulated from market gas price fluctuations, as we have it modelled.

BASE CASE FORECASTS

Yr to Dec		2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E	2038E
Net Oil Production	mbbl/d	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Net Gas Production	mmcf/d	--	0.9	2.1	4.1	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.3	8.6	8.4	8.4
Net Total Production	**mboe/d**	**--**	**0.16**	**0.34**	**0.68**	**1.75**	**1.74**	**1.74**	**1.74**	**1.75**	**1.74**	**1.74**	**1.71**	**1.44**	**1.40**	**1.40**
Av. HH Gas Price	US$/mcf	1.5	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.0	3.1	3.2
Av. TTF Gas Price	US$/mcf	8.9	10.1	9.5	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.4	11.6	11.8
Av. Sound Gas Price	US$/mcf	--	8.1	8.1	8.2	8.4	8.5	8.7	8.8	9.0	9.2	9.3	9.5	9.9	10.9	11.8
Revenue	£m	--	2.2	4.7	9.3	24.7	25.1	25.5	26.0	26.5	26.9	27.4	27.5	24.0	25.6	27.9
Unit OPEX (+Leases)	US$/boe	--	(29.6)	(27.0)	(18.0)	(9.1)	(9.2)	(9.3)	(9.4)	(9.5)	(9.5)	(9.6)	(9.9)	(11.9)	(12.3)	(12.4)
EBITDA	**£m**	**(2.1)**	**(0.9)**	**0.3**	**4.0**	**17.2**	**17.4**	**17.8**	**18.1**	**18.5**	**18.8**	**19.2**	**19.3**	**15.8**	**17.3**	**19.4**
CAPEX	£m	(7.0)	(5.8)	(17.2)	(7.2)	(0.9)	(0.9)	(0.9)	(0.9)	(1.0)	(1.4)	(1.7)	--	--	--	--
FCF	**£m**	**(9.9)**	**(7.7)**	**(17.9)**	**(6.1)**	**11.6**	**12.1**	**12.9**	**13.8**	**14.7**	**15.1**	**15.9**	**14.2**	**8.3**	**9.3**	**10.8**
Unit OCF	US$/boe	--	(12.9)	5.9	22.2	35.5	36.3	37.0	37.8	38.6	39.4	40.4	33.4	24.2	26.4	29.5
Unit FCF	US$/boe	--	(166.9)	(185.9)	(31.9)	23.7	24.7	26.4	28.2	30.0	30.8	32.4	29.6	20.6	23.6	27.6
Net Cash/(Debt)	**£m**	**(30.5)**	**(39.3)**	**(58.7)**	**(65.9)**	**(54.6)**	**(42.5)**	**(29.6)**	**(15.8)**	**(1.1)**	**14.0**	**29.9**	**44.1**	**52.4**	**61.7**	**72.6**

Source: Zeus

SCENARIO – HIGHER HENRY HUB AND TTF FORECASTS

Yr to Dec		2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E	2038E
Net Oil Production	mbbl/d	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Net Gas Production	mmcf/d	--	0.9	2.1	4.1	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.3	8.6	8.4	8.4
Net Total Production	**mboe/d**	**--**	**0.16**	**0.34**	**0.68**	**1.75**	**1.74**	**1.74**	**1.74**	**1.75**	**1.74**	**1.74**	**1.71**	**1.44**	**1.40**	**1.40**
Av. HH Gas Price	US$/mcf	1.8	3.0	3.2	3.3	3.3	3.4	3.5	3.5	3.6	3.7	3.7	3.8	3.9	4.0	4.1
Av. TTF Gas Price	US$/mcf	10.1	12.0	11.4	11.4	11.6	11.9	12.1	12.4	12.6	12.9	13.1	13.4	13.6	13.9	14.2
Av. Sound Gas Price	US$/mcf	--	8.1	8.1	8.2	8.6	8.8	8.9	9.1	9.3	9.4	9.6	9.8	10.2	12.2	14.2
Revenue	£m	--	2.2	4.7	9.3	25.4	25.8	26.2	26.7	27.3	27.6	28.2	28.3	24.8	28.8	33.5
Unit OPEX (+Leases)	US$/boe	--	(29.6)	(27.0)	(18.0)	(9.1)	(9.2)	(9.3)	(9.4)	(9.5)	(9.5)	(9.6)	(9.9)	(11.9)	(12.3)	(12.4)
EBITDA	**£m**	**(2.1)**	**(0.9)**	**0.3**	**4.0**	**17.8**	**18.1**	**18.4**	**18.8**	**19.2**	**19.5**	**20.0**	**20.0**	**16.6**	**20.3**	**24.7**
CAPEX	£m	(7.0)	(5.8)	(17.2)	(7.2)	(0.9)	(0.9)	(0.9)	(0.9)	(1.0)	(1.4)	(1.7)	--	--	--	--
FCF	**£m**	**(9.9)**	**(7.7)**	**(17.9)**	**(6.1)**	**12.3**	**12.7**	**13.6**	**14.5**	**15.5**	**15.8**	**16.6**	**14.8**	**8.8**	**11.1**	**14.1**
Unit OCF	US$/boe	--	(12.9)	5.9	22.2	36.9	37.6	38.4	39.2	40.1	40.9	41.9	34.7	25.5	31.1	37.6
Unit FCF	US$/boe	--	(166.9)	(185.9)	(31.9)	25.1	26.0	27.8	29.6	31.5	32.3	34.0	30.9	21.8	28.3	35.7
Net Cash/(Debt)	**£m**	**(30.5)**	**(39.3)**	**(58.7)**	**(65.9)**	**(53.9)**	**(41.2)**	**(27.6)**	**(13.1)**	**2.4**	**18.2**	**34.8**	**49.7**	**58.5**	**69.6**	**83.7**

Source: Zeus

SCENARIO – LOWER HENRY HUB AND TTF FORECASTS

Yr to Dec		2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E	2038E
Net Oil Production	mbbl/d	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Net Gas Production	mmcf/d	--	0.9	2.1	4.1	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.3	8.6	8.4	8.4
Net Total Production	**mboe/d**	**--**	**0.16**	**0.34**	**0.68**	**1.75**	**1.74**	**1.74**	**1.74**	**1.75**	**1.74**	**1.74**	**1.71**	**1.44**	**1.40**	**1.40**
Av. HH Gas Price	US$/mcf	1.2	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.6	2.7
Av. TTF Gas Price	US$/mcf	7.6	8.9	8.2	8.2	8.4	8.6	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.0	10.2
Av. Sound Gas Price	US$/mcf	--	8.1	8.1	8.2	8.2	8.4	8.5	8.7	8.8	9.0	9.2	9.4	9.7	10.0	10.2
Revenue	£m	--	2.2	4.7	9.3	24.3	24.6	25.0	25.5	26.0	26.4	26.9	27.0	23.5	23.5	24.2
Unit OPEX (+Leases)	US$/boe	--	(29.6)	(27.0)	(18.0)	(9.1)	(9.2)	(9.3)	(9.4)	(9.5)	(9.5)	(9.6)	(9.9)	(11.9)	(12.3)	(12.4)
EBITDA	**£m**	**(2.1)**	**(0.9)**	**0.3**	**4.0**	**16.7**	**17.0**	**17.3**	**17.6**	**18.0**	**18.3**	**18.8**	**18.8**	**15.3**	**15.3**	**15.8**
CAPEX	£m	(7.0)	(5.8)	(17.2)	(7.2)	(0.9)	(0.9)	(0.9)	(0.9)	(1.0)	(1.4)	(1.7)	--	--	--	--
FCF	**£m**	**(9.9)**	**(7.7)**	**(17.9)**	**(6.1)**	**11.2**	**11.6**	**12.5**	**13.3**	**14.3**	**14.6**	**15.4**	**13.8**	**8.0**	**8.1**	**8.7**
Unit OCF	US$/boe	--	(12.9)	5.9	22.2	34.6	35.3	36.1	36.8	37.6	38.4	39.3	32.6	23.4	23.3	24.1
Unit FCF	US$/boe	--	(166.9)	(185.9)	(31.9)	22.8	23.7	25.5	27.2	29.0	29.8	31.4	28.7	19.8	20.5	22.2
Net Cash/(Debt)	**£m**	**(30.5)**	**(39.3)**	**(58.7)**	**(65.9)**	**(55.0)**	**(43.4)**	**(31.0)**	**(17.6)**	**(3.4)**	**11.2**	**26.6**	**40.4**	**48.4**	**56.5**	**65.2**

Source: Zeus

Balance sheet review

The Sound balance sheet is relatively straightforward, with the main items of note being a debt position comprised of three facilities, and a receivables position driven by Tendrara partner CAPEX.

Debt position

Sound currently has three debt facilities. The first is EUR25.32m of secured bonds (carried on the end 2023 balance sheet at £22.0m across current and non-current borrowings). These are due for full repayment of the outstanding balance when the bonds mature in December 2027. The bonds pay 2% cash interest, and 3% PIK interest which rolls up and is paid at redemption. Sound has an option to redeem the bonds in full at 70% of par value (plus accrued interest), up until December 2024.

The second debt facility is an US$18.0m loan from Afriquia Gaz, which is also the company's LNG offtake partner for Tendrara Phase 1. The company had drawn US$12.0m of this as of the end of 2023, carried at £10.3m on the balance sheet. The interest rate is 6%, and interest payments roll up for the first two years, with cash payment thereafter. The facility matures in December 2033, but repayment begins, in equal annual instalments, in December 2028.

There were also £1.0m of liabilities relating to convertible bonds on the end 2023 balance sheet, with further subsequent drawings and conversion such that £0.25m remain outstanding.

Overall, this puts the company's end 2023 gross debt position at £33.3m, net debt at £30.3m.

Historic Morocco tax dispute

In 2023 Sound settled two separate tax disputes with the Moroccan authorities. This was a positive development, largely removing these potential liabilities for the company and taking away what was otherwise a distraction for management.

The first dispute related to an internal transfer of assets/funding between two Sound subsidiaries, which led the Moroccan tax authorities to assess a bill estimated at US$21.4m, over the years 2016 and 2017. The second related to a vendor funding arrangement with Schlumberger, with an associated bill of US$2.5m, over the years 2016 to 2018.

Sound maintains that both of the claims are without merit, but in an effort to settle this total potential US$23.9m combined liability, Sound in 2023 concluded an agreement to pay the Moroccan tax authorities a total of US$2.45m, over a six-year period and with payments back end loaded. This is in full settlement of all claims.

The US$2.45m payment liability will pass to Managem under the farm out deal, removing this as a liability for Sound.

Post Managem farm out balance sheet

We note that post the Managem farm out, there are likely to be non-cash balance sheet adjustments given the structure of the deal. We do not yet allow for these in our forecasts.

Valuation

We have valued Sound Energy using a sum-of-the parts NAV, which is our standard valuation approach for E&P companies. This shows substantial upside to current share price levels from both our core NAV (which focuses on development assets, plus corporate items) and total risked NAV (which adds in upside from exploration/appraisal).

We have also looked at Sound using UK-listed trading comps.

NAV-based valuation

Our NAV-based valuation of Sound is based on the following assumptions:

- We have valued the Phase 1 Tendrara development, and then also the upside to be had from developing Phase 2
- We have assumed the Managem farm out is executed, and on the terms announced, leaving Sound with a 20% stake in Tendrara and 27.5% in Grand Tendrara and Anoual
- We have also allowed for corporate items, including net debt and back costs from the announced Managem farm out
- We have assumed gas sales and prices as discussed in the financial section of this note, with tranches under the LNG offtake agreement with Afriquia Gas, the contract with ONEE and (we assume) further contracts and/or into the merchant market
- We have assumed OPEX and CAPEX as discussed in the financials section of this note
- We have included royalty and tax as discussed in the financials section of this note
- We have included a value for the planned wells on SBK-1 and M5 (expected to be funded from the Managem farm out), and also for a potential well on TE-4 Horst, which is not yet confirmed and is subject to funding
- We have used a discount rate of 10%, which is an industry standard level for E&P companies, and we feel this is appropriate for a jurisdiction like Morocco

Below we show a full NAV table for our base case valuation, which uses the same gas pricing assumptions as our base case financial forecasts.

We also run our NAV at the higher and lower Henry Hub and TTF pricing assumptions we have used for our forecast sensitivities, earlier in this note. These show more sensitivity to gas prices than the forecast scenarios, as they capture more of the impact on later years after the company’s secured and expected offtake contracts run out, after which we assume full market gas prices.

Finally, we run our NAV at a 12.5% discount rate, with our standard gas pricing assumptions.

BASE CASE NAV

Field/Prospect	Category	Gross Oil mmbbl	Gross Gas bcf	Gross Pet'm mmboe	*WI %*	Net Oil mmbbl	Net Gas bcf	Net Pet'm mmboe	Unrisk Value US$/boe	Unrisk Value US$m	Unrisk Value £m	Unrisk Value p/sh	*Risk %*	Risk Value US$m	Risk Value £m	Risk Value p/sh
Development																
Tendrara Phase 1	2C	--	39	7	20%	--	8	1	5.4	7.1	5.5	0.3	95%	6.8	5.2	0.2
Tendrara Phase 2	2C	--	265	44	20%	--	53	9	12.1	106.6	82.0	3.8	85%	90.6	69.7	3.2
Total Development NAV		**--**	**305**	**51**		**--**	**61**	**10**		**114**	**87**	**4.0**		**97**	**75**	**3.4**
Net Cash/(Debt)														(39.3)	(30.3)	(1.4)
Options/Warrants/Converts														6.3	4.8	0.2
Tendrara Back Costs														14.5	11.2	0.5
Additional CAPEX														(6.2)	(4.8)	(0.2)
Admin Costs														(5.9)	(4.5)	(0.2)
CORE NAV										**83**	**64**	**2.9**		**67**	**51**	**2.3**
Exploration/Appraisal Upside																
TE-4 Horst Well - Tendrara	P50	--	181	30	*27.5%*	--	50	8	6.0	49.9	38.4	1.8	*30%*	15.0	11.5	0.5
SBK-1 Well - Tendrara	P50	--	91	15	*27.5%*	--	25	4	6.0	25.2	19.4	0.9	*30%*	7.5	5.8	0.3
M5 Well - Anoual	P50	--	560	93	*27.5%*	--	154	26	6.2	160.2	123.2	5.6	*15%*	24.0	18.5	0.8
Total Upside NAV		**--**	**832**	**139**		**--**	**229**	**38**		**235**	**181**	**8.3**		**47**	**36**	**1.6**
TOTAL NAV										**318**	**245**	**11.2**		**113**	**87**	**4.0**

Source: Zeus

HIGHER GAS PRICES CASE NAV

Field/Prospect	Category	Gross Oil mmbbl	Gross Gas bcf	Gross Pet'm mmboe	*WI %*	Net Oil mmbbl	Net Gas bcf	Net Pet'm mmboe	Unrisk Value US$/boe	Unrisk Value US$m	Unrisk Value £m	Unrisk Value p/sh	*Risk %*	Risk Value US$m	Risk Value £m	Risk Value p/sh
Development																
Tendrara Phase 1	2C	--	39	7	*20%*	--	8	1	5.4	7.1	5.5	0.3	*95%*	6.8	5.2	0.2
Tendrara Phase 2	2C	--	265	44	*20%*	--	53	9	13.4	118.2	90.9	4.2	*85%*	100.5	77.3	3.5
Total Development NAV		**--**	**305**	**51**		**--**	**61**	**10**		**125**	**96**	**4.4**		**107**	**83**	**3.8**
Net Cash/(Debt)														(39.3)	(30.3)	(1.4)
Options/Warrants/Converts														6.3	4.8	0.2
Tendrara Back Costs														14.5	11.2	0.5
Additional CAPEX														(6.2)	(4.8)	(0.2)
Admin Costs														(5.9)	(4.5)	(0.2)
CORE NAV										**95**	**73**	**3.3**		**77**	**59**	**2.7**
Exploration/Appraisal Upside																
TE-4 Horst Well - Tendrara	P50	--	181	30	*27.5%*	--	50	8	10.3	85.6	65.8	3.0	*30%*	25.7	19.7	0.9
SBK-1 Well - Tendrara	P50	--	91	15	*27.5%*	--	25	4	10.3	43.1	33.2	1.5	*30%*	12.9	9.9	0.5
M5 Well - Anoual	P50	--	560	93	*27.5%*	--	154	26	9.0	230.7	177.5	8.1	*15%*	34.6	26.6	1.2
Total Upside NAV		**--**	**832**	**139**		**--**	**229**	**38**		**359**	**276**	**12.7**		**73**	**56**	**2.6**
TOTAL NAV										**454**	**349**	**16.0**		**150**	**115**	**5.3**

Source: Zeus

LOWER GAS PRICES CASE NAV

Field/Prospect	Category	Gross Oil mmbbl	Gross Gas bcf	Gross Pet'm mmboe	*WI%*	Net Oil mmbbl	Net Gas bcf	Net Pet'm mmboe	Unrisk Value US$/boe	Unrisk Value US$m	Unrisk Value £m	Unrisk Value p/sh	*Risk %*	Risk Value US$m	Risk Value £m	Risk Value p/sh
Development																
Tendrara Phase 1	2C	--	39	7	*20%*	--	8	1	5.4	7.1	5.5	0.3	*95%*	6.8	5.2	0.2
Tendrara Phase 2	2C	--	265	44	*20%*	--	53	9	11.2	98.8	76.0	3.5	*85%*	84.0	64.6	3.0
Total Development NAV		**--**	**305**	**51**		**--**	**61**	**10**		**106**	**81**	**3.7**		**91**	**70**	**3.2**
Net Cash/(Debt)														(39.3)	(30.3)	(1.4)
Options/Warrants/Converts														6.3	4.8	0.2
Tendrara Back Costs														14.5	11.2	0.5
Additional CAPEX														(6.2)	(4.8)	(0.2)
Admin Costs														(5.9)	(4.5)	(0.2)
CORE NAV										**75**	**58**	**2.7**		**60**	**46**	**2.1**
Exploration/Appraisal Upside																
TE-4 Horst Well - Tendrara	P50	--	181	30	*27.5%*	--	50	8	3.2	26.2	20.1	0.9	*30%*	7.9	6.0	0.3
SBK-1 Well - Tendrara	P50	--	91	15	*27.5%*	--	25	4	3.2	13.2	10.1	0.5	*30%*	4.0	3.0	0.1
M5 Well - Anoual	P50	--	560	93	*27.5%*	--	154	26	4.4	113.1	87.0	4.0	*15%*	17.0	13.1	0.6
Total Upside NAV		**--**	**832**	**139**		**--**	**229**	**38**		**152**	**117**	**5.4**		**29**	**22**	**1.0**
TOTAL NAV										**228**	**175**	**8.0**		**89**	**68**	**3.1**

Source: Zeus

HIGHER DISCOUNT RATE (12.5%) CASE NAV

Field/Prospect	Category	Gross Oil mmbbl	Gross Gas bcf	Gross Pet'm mmboe	*WI %*	Net Oil mmbbl	Net Gas bcf	Net Pet'm mmboe	Unrisk Value US$/boe	Unrisk Value US$m	Unrisk Value £m	Unrisk Value p/sh	*Risk %*	Risk Value US$m	Risk Value £m	Risk Value p/sh
Development																
Tendrara Phase 1	2C	--	39	7	*20%*	--	8	1	4.3	5.7	4.4	0.2	*95%*	5.4	4.2	0.2
Tendrara Phase 2	2C	--	265	44	*20%*	--	53	9	9.4	83.1	63.9	2.9	*85%*	70.6	54.3	2.5
Total Development NAV		**--**	**305**	**51**		**--**	**61**	**10**		**89**	**68**	**3.1**		**76**	**59**	**2.7**
Net Cash/(Debt)														(39.3)	(30.3)	(1.4)
Options/Warrants/Converts														6.3	4.8	0.2
Tendrara Back Costs														14.5	11.2	0.5
Additional CAPEX														(6.2)	(4.8)	(0.2)
Admin Costs														(5.8)	(4.4)	(0.2)
CORE NAV										**58**	**45**	**2.1**		**46**	**35**	**1.6**
Exploration/Appraisal Upside																
TE-4 Horst Well - Tendrara	P50	--	181	30	*27.5%*	--	50	8	3.7	30.8	23.7	1.1	*30%*	9.3	7.1	0.3
SBK-1 Well - Tendrara	P50	--	91	15	*27.5%*	--	25	4	3.7	15.5	12.0	0.5	*30%*	4.7	3.6	0.2
M5 Well - Anoual	P50	--	560	93	*27.5%*	--	154	26	4.1	104.6	80.4	3.7	*15%*	15.7	12.1	0.6
Total Upside NAV		**--**	**832**	**139**		**--**	**229**	**38**		**151**	**116**	**5.3**		**30**	**23**	**1.0**
TOTAL NAV										**209**	**161**	**7.4**		**75**	**58**	**2.6**

Source: Zeus

Trading comps

We have also looked at trading comps for Sound. UK peers are also on a P/FCF of around 4.0x. Sound sustained free cash flow once Phase 2 is onstream is about £12m/year. If we put this on 4.0x, this implies a share price of 2.4p.

UK E&P Sector Trading Comps

Ticker	Name	Stock Price Local	Market Cap Local	EV US$m	FY End	EV/EBITDA (x) FY1 2024	EV/EBITDA (x) FY2 2025	P/FCF (x) FY1 2024	P/FCF (x) FY2 2025	*Div Yield (%) FY1 2024*
AET LN	Afentra	53.0p	£120m	US$169m	12/2023	2.1x	1.8x	3.0x	6.0x	*0.0%*
AXL LN	Arrow Exploration	25.0p	£71m	US$79m	12/2023	1.2x	0.9x	n.m	2.0x	*n.a.*
CNE LN	Capricorn Energy	183.0p	£132m	US$97m	12/2023	1.0x	1.1x	8.6x	4.0x	*23.7%*
DEC LN	Diversified Energy	1,075.0p	£509m	US$1,962m	12/2023	4.2x	4.4x	2.0x	2.4x	*11.6%*
ENOG LN	Energean	1,033.0p	£1,895m	US$5,346m	12/2023	4.0x	2.9x	9.4x	3.3x	*11.1%*
ENQ LN	Enquest	13.6p	£258m	US$1,211m	12/2023	1.4x	1.4x	1.3x	1.3x	*4.1%*
ENW LN	Enwell Energy	16.8p	£54m	(US$8m)	12/2023	n.m	n.m	5.8x	n.m	*n.a.*
GENL LN	Genel Energy	97.1p	£271m	US$227m	12/2023	5.5x	2.3x	n.m	6.6x	*0.0%*
GTE LN	Gran Tierra Energy	745.0p	£299m	US$861m	12/2023	2.0x	2.1x	7.0x	5.0x	*n.a.*
GKP LN	Gulf Keystone	151.2p	£332m	US$340m	12/2023	7.4x	2.1x	n.m	4.5x	*0.0%*
HBR LN	Harbour Energy	312.7p	£2,409m	US$3,960m	12/2023	1.4x	0.9x	10.4x	3.4x	*6.6%*
I3E LN	i3 Energy	9.2p	£111m	US$155m	12/2023	2.7x	2.2x	n.m	n.m	*10.9%*
ITH LN	Ithaca Energy	131.2p	£1,331m	US$2,190m	12/2023	1.8x	1.6x	7.4x	3.0x	*15.5%*
JSE LN	Jadestone Energy	33.0p	£178m	US$107m	12/2023	0.7x	0.4x	n.m	2.3x	*0.0%*
KIST LN	Kistos	134.0p	£111m	US$165m	12/2023	1.5x	0.8x	n.m	1.0x	*n.a.*
PTAL LN	Petrotal	40.8p	£373m	US$447m	12/2023	2.0x	1.6x	n.m	n.m	*11.6%*
PHAR LN	Pharos Energy	24.1p	£101m	US$137m	12/2023	1.5x	1.5x	4.4x	3.0x	*2.3%*
SEPL LN	Seplat Petroleum	190.0p	£1,118m	US$1,843m	12/2023	n.m	n.m	n.m	n.m	*6.2%*
SOU LN	Sound Energy	0.95p	£19m	US$63m	12/2023	n.m	n.m	n.m	n.m	*n.a.*
SQZ LN	Serica Energy	157.2p	£614m	US$530m	12/2023	0.8x	0.8x	7.6x	4.6x	*13.9%*
TXP LN	Touchstone Expl’n	30.3p	£71m	US$110m	12/2023	n.m	n.m	n.m	n.m	*n.a.*
TLW LN	Tullow Oil	31.8p	£463m	US$3,081m	12/2023	2.5x	2.7x	1.7x	1.5x	*0.0%*
EGY LN	VAALCO	491.0p	£508m	US$622m	12/2023	2.2x	2.0x	7.8x	n.m	*4.1%*
ZPHR LN	Zephyr Energy	5.2p	£90m	US$117m	12/2022	8.6x	8.1x	n.m	7.5x	*0.0%*
Mean						**2.7x**	**2.1x**	**5.9x**	**3.6x**	***6.7%***
Median						**2.0x**	**1.7x**	**7.0x**	**3.3x**	***5.2%***
Low						**0.7x**	**0.4x**	**1.3x**	**1.0x**	**--**
High						**8.6x**	**8.1x**	**10.4x**	**7.5x**	***23.7%***

Source: Bloomberg, Companies, Zeus Research

Trading comps – Morocco focus

We have also had a specific look at other UK-listed companies operating in Morocco, where we have focussed on reserves and resources multiples.

Chariot and Predator both have active development projects like Sound (though Chariot is focussed offshore), while SDX has existing producing assets in Morocco and also Egypt (the Egypt assets are being sold).

On an EV/2P+2C basis, Sound is at a premium to these peers, principally due to its debt level boosting its EV.

Trading Comps – Morocco Focus

Ticker	Name	Stock Price Local	Market Cap Local	EV US$m	2P mmboe	2C mmboe	Production mboe/d	EV/2P	EV/2P+2C	EV/Flowing boe
CHAR LN	Chariot Energy	7.34p	£79m	US$95m	--	21	--	n.m	US$4.5/boe	n.m
SDX LN	SDX Energy	3.50p	£7m	US$4m	5	0	3.3	US$0.7/boe	US$0.7/boe	US$1/kboepd
SOU LN	Sound Energy	0.95p	£19m	US$63m	--	11	--	n.m	US$5.8/boe	n.m
PRD LN	Predator Oil & Gas	9.85p	£56m	US$62m	--	37	--	n.m	US$1.7/boe	n.m
Mean								**US$0.7/boe**	**US$3.2/boe**	**US$1/kboepd**
Median								**US$0.7/boe**	**US$3.1/boe**	**US$1/kboepd**
Low								**US$0.7/boe**	**US$0.7/boe**	**US$1/kboepd**
High								**US$0.7/boe**	**US$5.8/boe**	**US$1/kboepd**

Source: Bloomberg, Companies

Morocco country backdrop

Energy market review

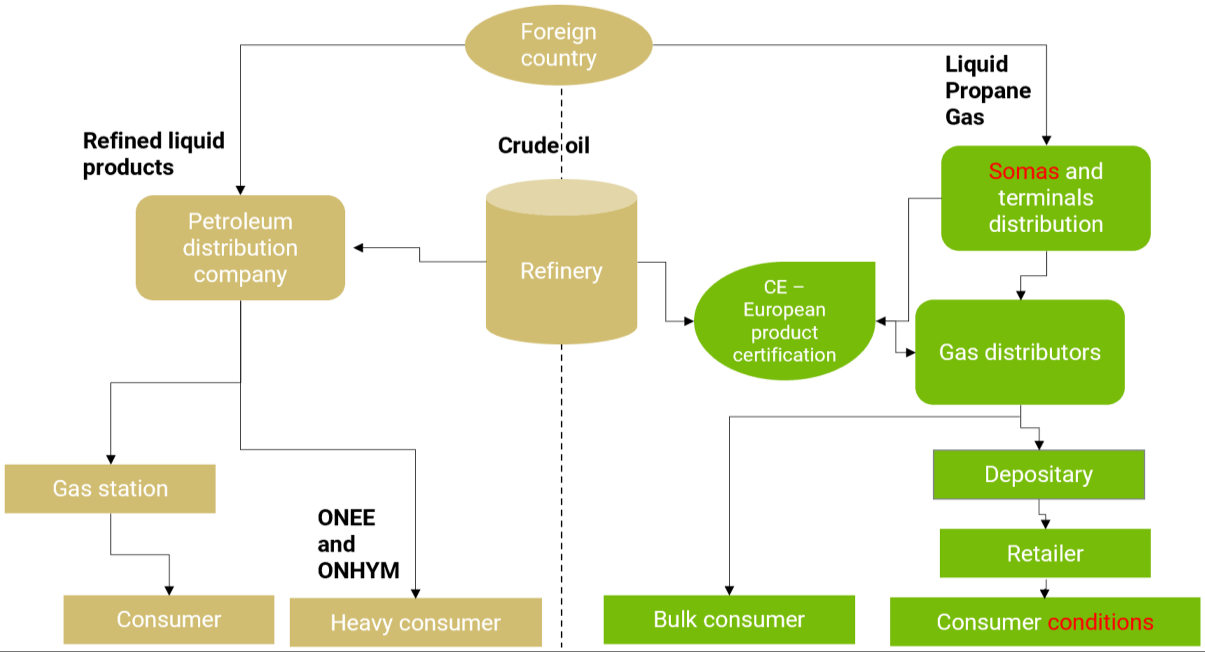
The energy market in Morocco has been characterised by a heavy dependence on imported hydrocarbons, with the country currently importing c.90% of its energy needs making it the largest importer of energy in northern Africa. The country's stated aim is to reduce energy consumption by 15% from 2016 levels by 2030 through various efficiency measures; however, it is currently still rising year-on-year.

This dependence on imports stems from the limited domestic production Morocco has historically delivered, across both oil and gas. The United States Energy Information Administration (EIA) reported Morocco produces only marginal amounts of oil, natural gas, and refined petroleum, and has never exceeded 5mbbl/d of oil. The Moroccan government has been attempting to incentivise domestic production for decades and attempts to coordinate the energy sector through its two independent government agencies: the Office of Hydrocarbons and Mining (ONHYM) which sets domestic oil policy, and the National Office of Electricity and Drinking Water (ONEE) which controls energy strategy related to those areas.

North Africa represents one of the most important oil and gas producing regions in the world. It has a geographic importance, acting as a crossroads between Europe, Africa, and the Middle East, and as an important supply route for global energy markets. As a major North African nation, Morocco has a significant opportunity available to it if it can capitalise on this positive backdrop and successfully reverse its fortunes with respect to domestic energy production.

An overview of the organisation of the Moroccan oil and gas industry is outlined below. It is a relatively standard structure, is well organised by the state-owned operating companies, and demonstrates clear routes to market. Hence, there is already a well-established and effective oil and gas distribution model in place that companies can benefit from if they are able to replace the foreign oil and gas input with Moroccan generated resource.

Organisation of the Moroccan National Oil Industry

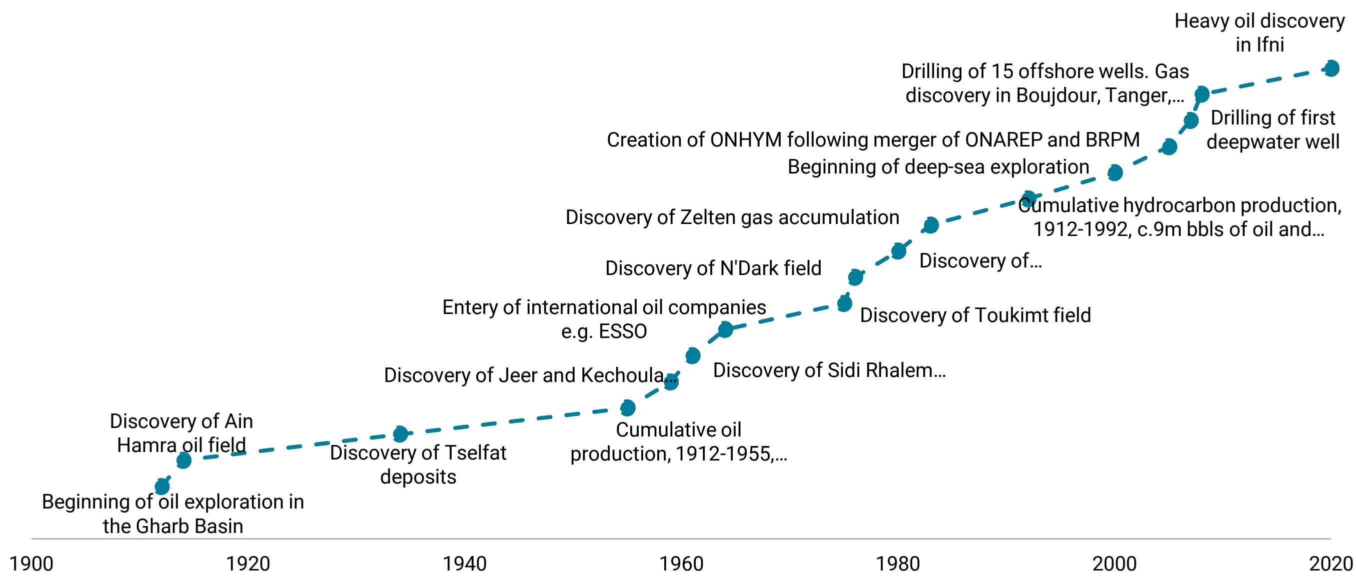


Source: Moroccan Ministry of Energy

The figure below shows a timeline of key events related to the oil and gas industry in Morocco over the last century since the beginning of oil exploration in the Gharb Basin in 1912. Since then, there has been a steady, but slow, pace of discoveries of various deposits and fields. Management of the energy sector was brought under the control of the Moroccan state in 1963 before a re-privatisation effort in the late 1990's, and there was a relatively significant uptick in activity since the early 2000's following the creation of ONHYM.

Production in the 2000's reached as high as 4.7mbbl/d, but the EIA reported oil production at just 160bbl/d as of June 2020. ONHYM is maintaining an optimistic outlook, however, about finding additional reserves, particularly offshore, following discoveries in neighbouring state Mauritania, and in attracting sufficient foreign investment to develop domestic production.

Timeline of Notable Morocco Oil and Gas Activity



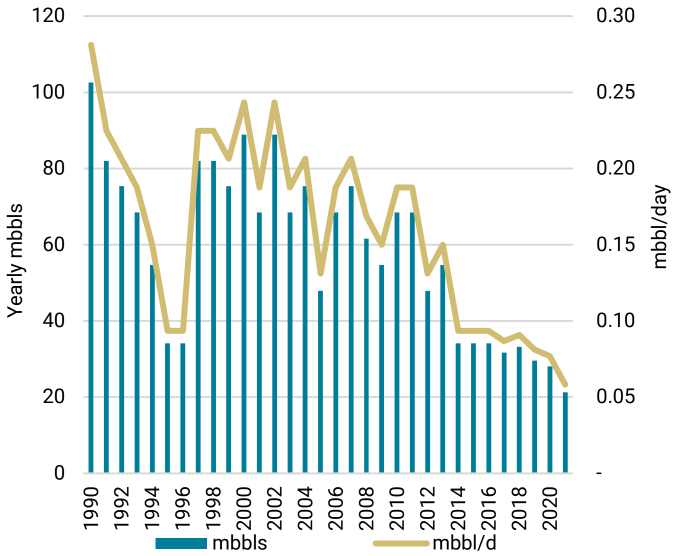
Source: ONHYM

Domestic supply and demand mismatch

Morocco has consistently had a significant disparity between the amount of oil and gas it produces versus the amount it consumes for domestic use. In 2021, domestic oil production made up c.0.02% of the total amount consumed (0.06mbbl/d vs 286mbbl/d) and domestic gas production made up c.12% (9mmcf/d vs 74mmcf/d). Gas production has steadily increased over the last 25 years, up from 4.6mmcf/d in 2000 to 9mmcf/d in 2020, due to the various discoveries made as outlined in the figure above. Oil production has decreased dramatically, however, to 0.06bbl/d in 2021, albeit from already very subdued levels of 0.24mbbl/d in 2000.

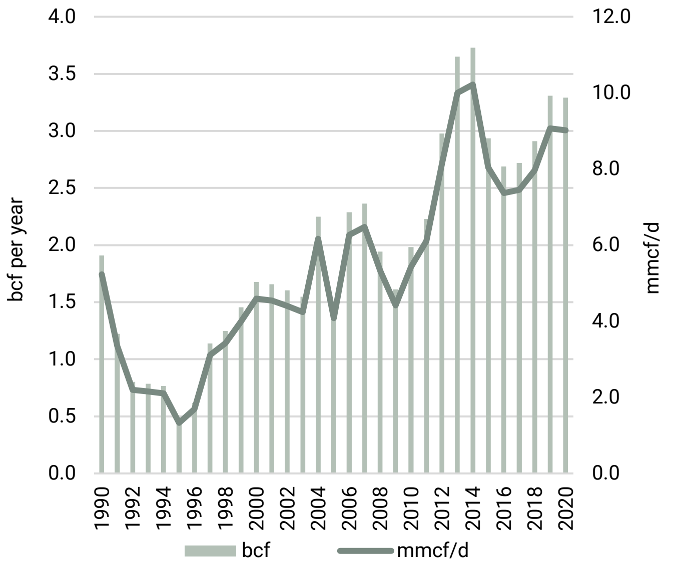
The demand and supply mismatch has therefore worsened considerably over recent years as overall oil and gas production has failed to keep pace with consumption demands. Consumption has continued to increase rapidly, driven by economic and population growth accelerating Morocco's need for energy in a non-linear fashion. For example, gas consumption has increased by over 10x that of economic growth since 2000. Hence, achieving sufficient domestic production is increasingly important.

Morocco Oil Production



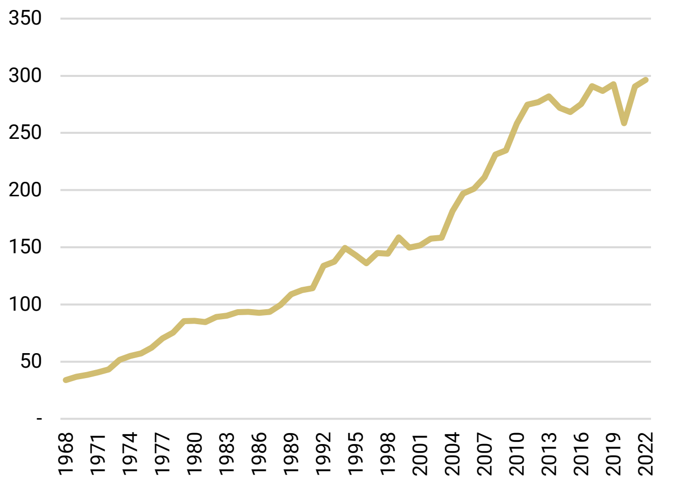
Source: IEA

Morocco Gas Production



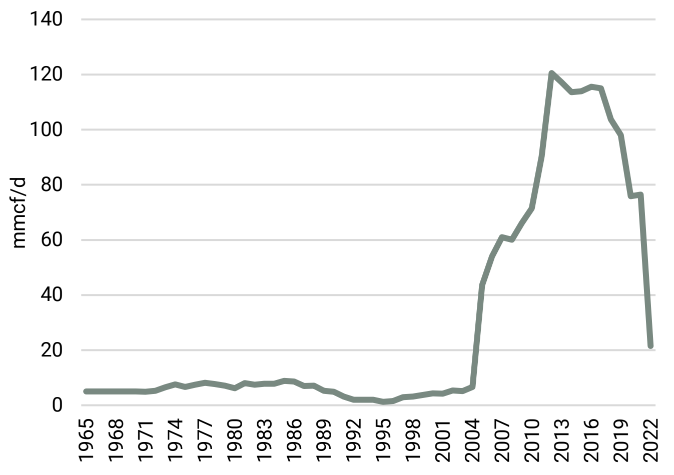
Source: IEA

Moroccan Oil Consumption (mbbl/d)



Source: Energy Institute Statistical Review of World Energy, 2023

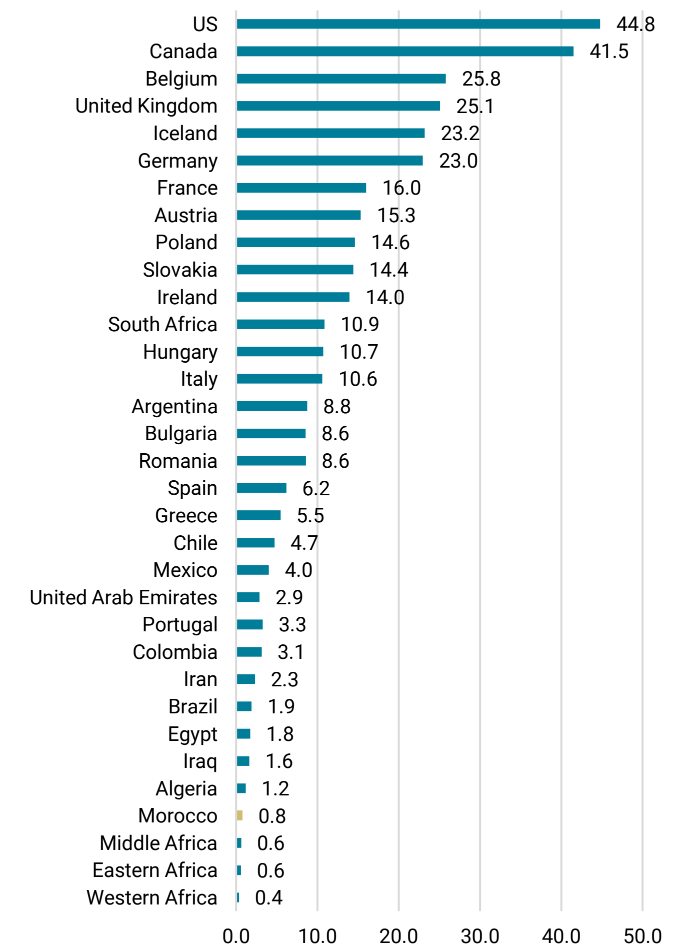
Moroccan Gas Consumption



Source: Energy Institute Statistical Review of World Energy, 2023

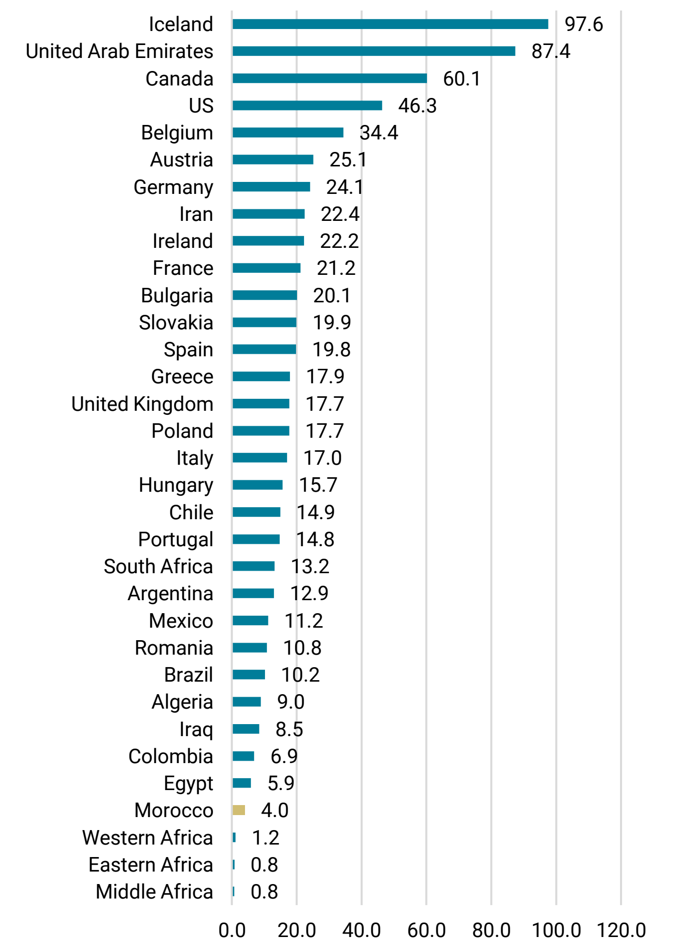
Despite Moroccan energy consumption growing much faster than its economic growth, the level of consumption on a per capita basis still lags, and has lagged, developed economies and peers. In 1965 Morocco's energy consumption was c.0.7 boe per capita compared with 24.6 boe in the UK and 10.5 boe in South Africa, for example. By 2021 Morocco's consumption had increased to 4.1 boe per capita; however, this was still near the bottom of the comparator set with the UK consuming 17.1 boe per capita and South Africa 13.2 boe per capita. This implies there is still significant scope for further growth in energy consumption as Morocco develops as a nation. Energy consumption in Morocco would need to increase by 5x-6x just to compare with European economies such as France and Germany. It is worth noting that this pace of growth is not out of reach for Morocco as boe per capita consumed over the period 1965-2021 has increased by 471%, putting it near the top of the selected comparator set. Should these rates of growth continue, the readily available market of demand for any energy producers in the country will be significant.

Energy Consumption in 1965 (boe/capita)



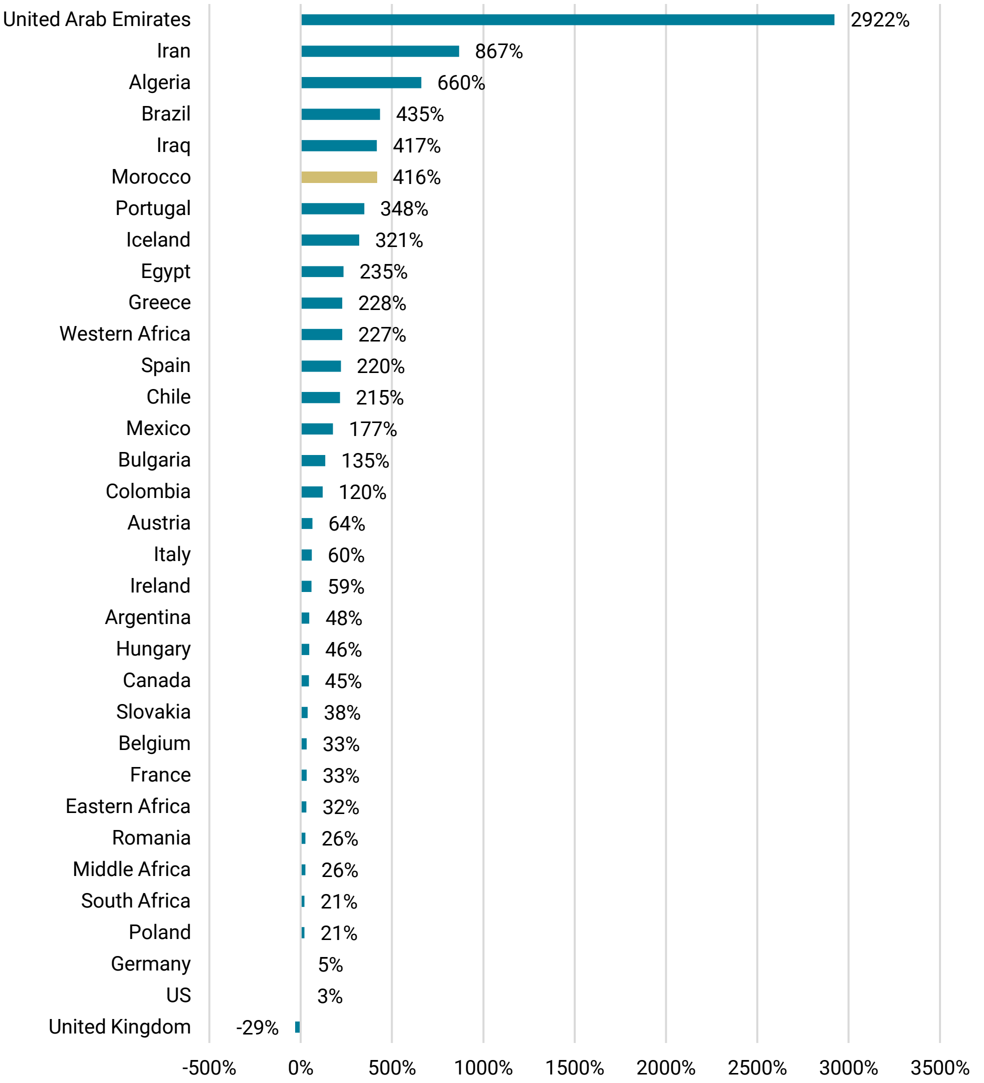
Source: Energy Institute Statistical Review of World Energy, 2023

Energy Consumption in 2022 (boe/capita)



Source: Energy Institute Statistical Review of World Energy, 2023

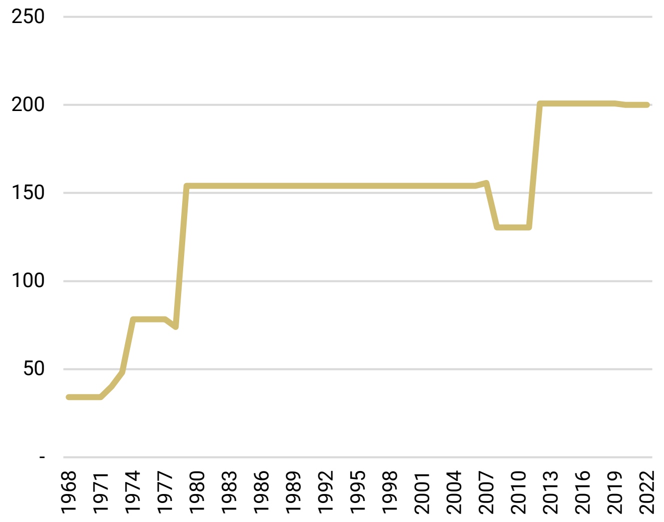
Growth in Energy Consumption 1965-2022 (boe/capita)



Source: Energy Institute Statistical Review of World Energy, 2023

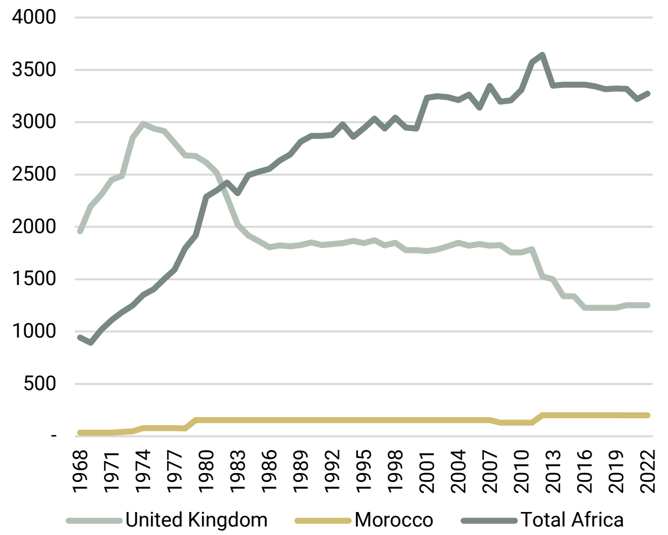
Morocco does have a good level of domestic oil refining capacity, based on the SAMIR refinery located at Mohammedia. This has a refining capacity of 200mbbl/d, but has been shut-in since 2015 due to financial difficulties. The Moroccan government continues to seek a new buyer which could support reopening.

Morocco's Oil Refining Capacity (mbbl/d)



Source: Energy Institute Statistical Review of World Energy, 2023

Comparison of Oil Refining Capacity (mbbl/d)



Source: Energy Institute Statistical Review of World Energy, 2023

Perhaps more important, however, is the limited infrastructure related to gas resources. As is covered in more detail below, Morocco's only major supply of gas is through the Maghreb-Europe (MEG) gas pipeline (also known as the GME pipeline), that transports gas from Algeria to Europe via Morocco. The MEG pipeline earned the Moroccan government over EUR50m annually in transit fees and c.28bcf of Algerian gas at a stable price, which was used to power Moroccan power stations.

Recent geopolitical issues between Algeria and Morocco in a dispute over Western Sahara, however, culminated in Algeria closing the MEG pipeline in late 2022. Further, Algeria also has a direct Algeria to Spain pipeline which had already cut the amount of gas being passed through Morocco from the full extent of Algeria's supply. Therefore, other than minor levels of domestic production currently in place, there is an extensive opportunity for any future gas production to service the substantial amount of domestic demand. Importantly, the Algeria-Morocco tension has led to a worsening Algeria-Spain relationship, with the Spanish government prioritising relations with Morocco and supporting Rabat's proposal for autonomy under Moroccan sovereignty for Western Sahara. This offers a potentially stronger future connection between Morocco, Europe, and the wider global energy market, should sufficient infrastructure be put in place.

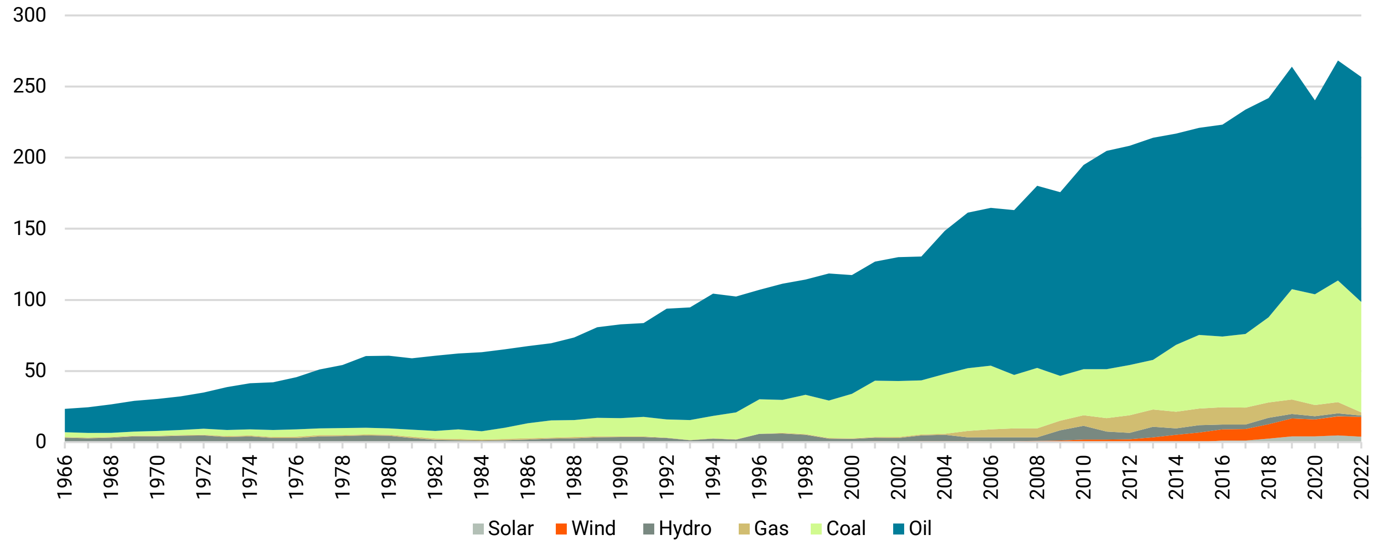
Current state of play and future potential

Despite the historic lack of domestic oil and gas production and the wider macro focus on a transition to renewable energy, oil and gas still comprised 60%, 160TWH, of total Moroccan energy consumption in 2021. There is evidently a huge addressable pool of market demand for any new companies looking to produce oil or gas in country. This level of energy demand is driven by the economic progression the nation has experienced, covered in more detail below, leading to various developments such as substantial levels of travel across both passenger and commercial:

- 39.5m passengers and 28.2m tonnes travel by rail
- 20.4m passengers and 135m tonnes travel by air
- 5.24m passengers and 135m tonnes travel by sea

As of 2021, there were 13 oil companies operating in Morocco, 53 exploration permits (26 offshore), and nine oil exploitation concessions. There are favourable fiscal terms and a well-established sales distribution network within country.

Moroccan Energy Consumption by Source (TWH)



Source: World Bank

The Moroccan Ministry of Energy states that the country's major sedimentary basins have similar geology and compositions to that of some other oil-producing nations, offering confidence in the regions suitability to operate in. There are 325 exploration wells in total and generally, two primary existing hydrocarbon production and exploitation areas:

Producing areas - the Gharb Basin

The Gharb Basin largely contains dry gas (99% methane) and requires drilling depths of 900-1,800m, making it very easy to exploit and commercialise any gas discoveries. Exploitation activity to date has therefore been economic despite being relatively insignificant in scale because of this easy drilling access and the ready pool of customers near to the existing pipeline network. Recovery factors can reach levels of 90%. As with many domestic resources, most of the exploitation and production activity in this basin has been carried out via a joint partnership between ONHYM and the UK company SDX Energy since 2017, with SDX retaining 75% in the producing concessions. 70 wells have been drilled so far, including 41 gas discoveries, to meet client demands with gas flow rates in excess of 7mmcf/d. This makes it one of the most active regions in Morocco. Infrastructure in this basin is comprised of 120km of eight-inch pipelines alongside several other shorter, three-inch pipelines.

Producing areas - the Essaouira Basin

The Essauira Basin also contained significant potential for hydrocarbons with the main Meskala field producing wet gas. Total output since first production in 1987 is c.29bcf of natural gas and the existing infrastructure comprises c.155km of pipeline.

The Gharb Basin, Satellite View

Source: ONHYM

Essaouira Basin, Satellite View

Source: ONHYM

Stratum: A layer of rock or sediment characterized by certain physical properties or attributes that distinguish it.

Tertiary Basin: The Tertiary strata were formed in marine and continental regions, with a prevalence for clayey and sandy sediment as well as rare limestone.

Rif: a geographic region bordered on the north by the Mediterranean Sea and Spain and on the west by the Atlantic Ocean, and northern Morocco.

Total Organic Carbon (TOC): A measure of the total amount of carbon in organic compounds in pure water and aqueous systems. For marine surface sediments the average TOC content is 0.5% in the deep ocean, and 2% along the eastern margins.

Hydrocarbon exploration activity so far only covers one-third of the sedimentary basin acreage with the national average drilling being less than 0.05 wells per 100 square km. This compares to an average of ten wells per 100 square km in the rest of the oil producing world, highlighting the extent of under development and potential opportunity in the country.

From an offshore perspective, there are also two primary areas of substantial resource:

Offshore - Mediterranean Sea

The total area comprising the Mediterranean Sea which Morocco can access for resources is c.24,500 sq. km which currently has only two exploratory wells in place. The Alboran Basin is the most western Tertiary basin of the Mediterranean Sea and is strongly subsiding. There is evidence of shaly marine sediments present throughout this basin, indicating the potential for very organic-rich rock beds. Early and relatively limited geochemical analyses conducted in 2000 in the northern part of the Rif demonstrated TOC values of c.2%. Multiple reservoirs have been identified in the area including sandstone deposits with good levels of porosity at c.20%, whilst the relatively underexplored deep-water regions offer the potential for further exploration opportunities.

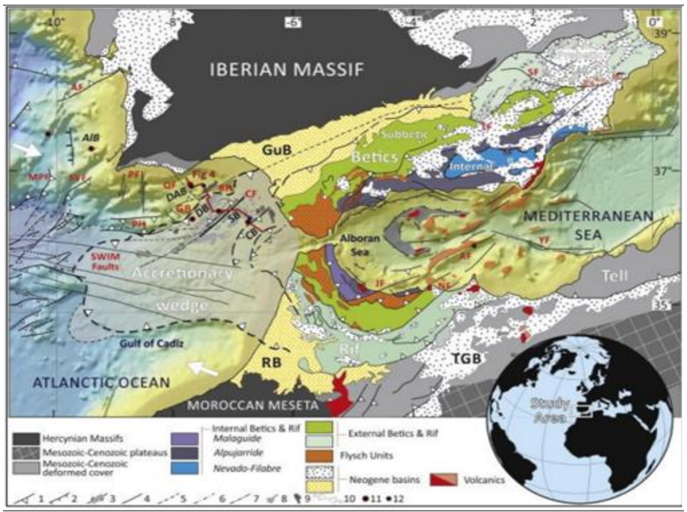
Offshore - Atlantic Offshore

The Morocco Atlantic Margin extends for over 3,000km off the Tangier coastline. It has a variable shelf width reaching up to 150km in places south of Agadir but averaging 50km to the North. The total area is 337,500 square km and it is considerably better explored than the Mediterranean with 42 exploratory wells. However, this is still substantially under explored as these 42 wells have been drilled over a very long time, since 1968. What this activity does mean is there is a good amount of readily available data on the region as each well has a full set of logs, alongside regional seismic surveys. A number of the exploratory wells have discovered oil and gas reserves, albeit small in volume, but more importantly there are 496 prospects and leads offering very large potential resources. Nevertheless, only three wells to date have produced liquid hydrocarbons during tests. For example, the MO-2 well test produced heavy oil whilst the MO-8 well test produced light oil.

The Anchois gas field, located in the Tanger-Larache exploration area of the Lixus licence, 40km off the coast of Morocco in the Atlantic, is the first exploratory success located offshore Morocco. The Lixus licence is jointly owned by operator Chariot (75%) and ONHYM (25%). Feasibility studies and Morocco gas market monetisation assessments were completed in June 2019, followed by the award of a front-end engineering and design (FEED) contract in June 2022. First gas expected in 2024.

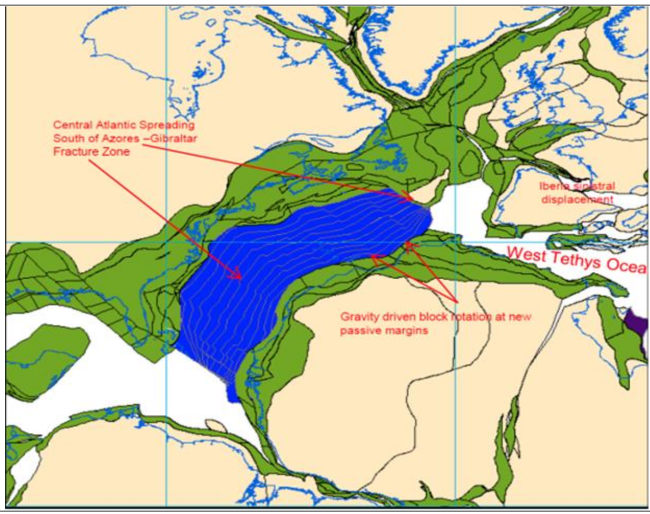
The second appraisal and exploration well, Anchois-2, was completed in January 2022 and confirmed a net pay of 150m of dry gas (over 96% methane). The field as a whole is estimated to hold up to 1.4 tcf of recoverable gas resources. The gas will be supplied domestically and internationally using the Maghreb-Europe gas (MEG) pipeline, owned and operated by ONHYM.

Mediterranean Sea Map



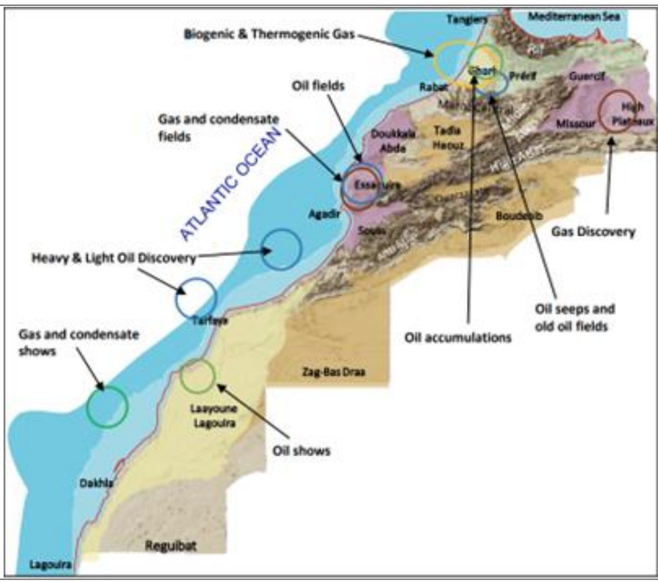
Source: ONHYM

Atlantic Offshore Map



Source: ONHYM

Moroccan Discoveries



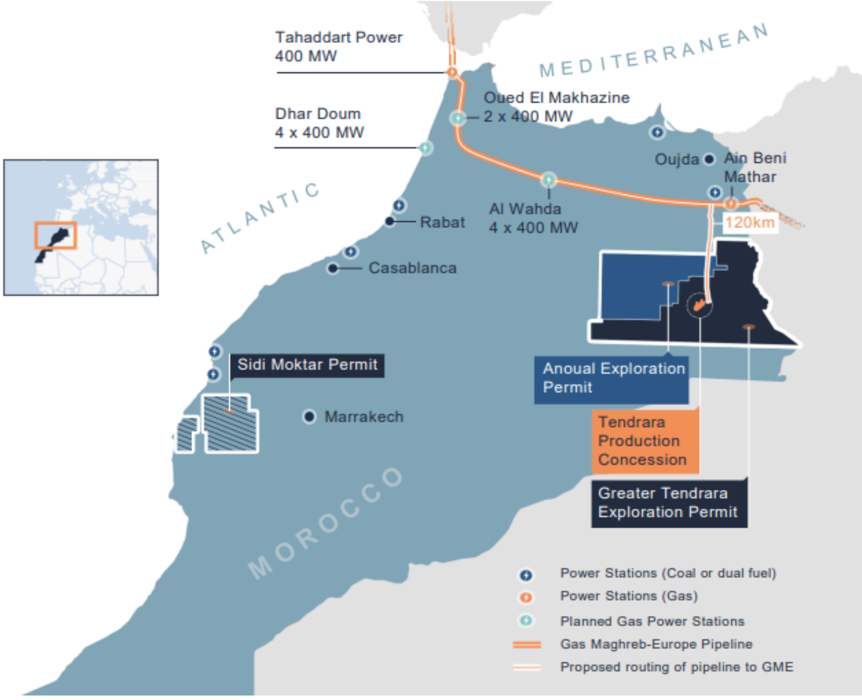
Source: ONHYM

Gas infrastructure

Morocco has a number of internal gas pipelines that transport the limited existing domestic production from regional production areas across the country. It is unlikely these pipelines are running at full capacity due to the level of domestic production, nevertheless any substantial discovery and uplift in domestic production would likely require investment in upgrading and expanding the existing internal pipeline infrastructure.

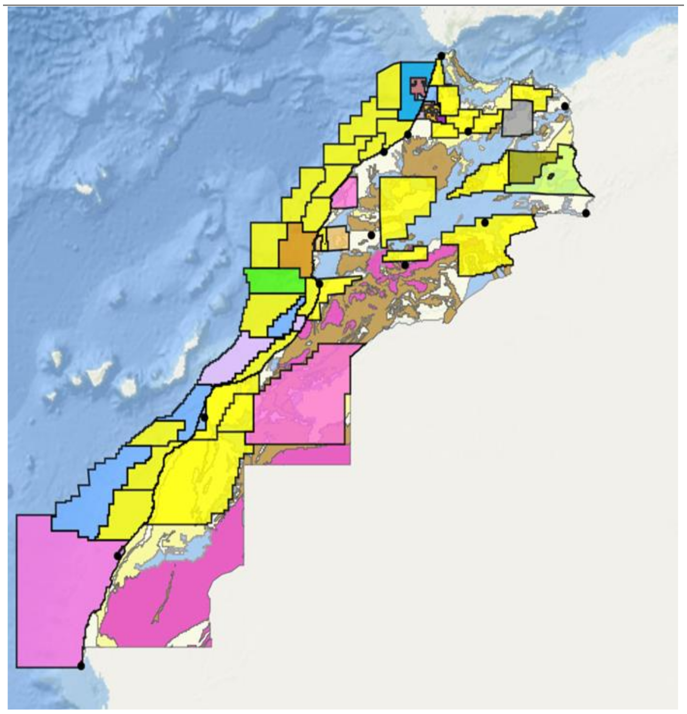
Morocco has historically imported 90% of all consumed gas from Algeria through the GME pipeline, but since June 2022 has started to import gas from Spain as Algeria froze exports through the GME pipeline. Currently there are two existing combined cycle gas turbine plants reliant on imports of re-gasified LNG from Spain. The Moroccan Government is committed to reduce dependency on imports, with a clear energy policy focused on energy security and sustainability. The Morocco National Energy Strategy is aimed at harnessing renewable energy, adding 3,900MW of new gas-fired power capacity as an alternative to coal. Natural gas therefore plays a strategically important role as a bridge fuel to sustain Morocco's growing energy needs as the wider global energy transition takes place.

Moroccan Gas Infrastructure



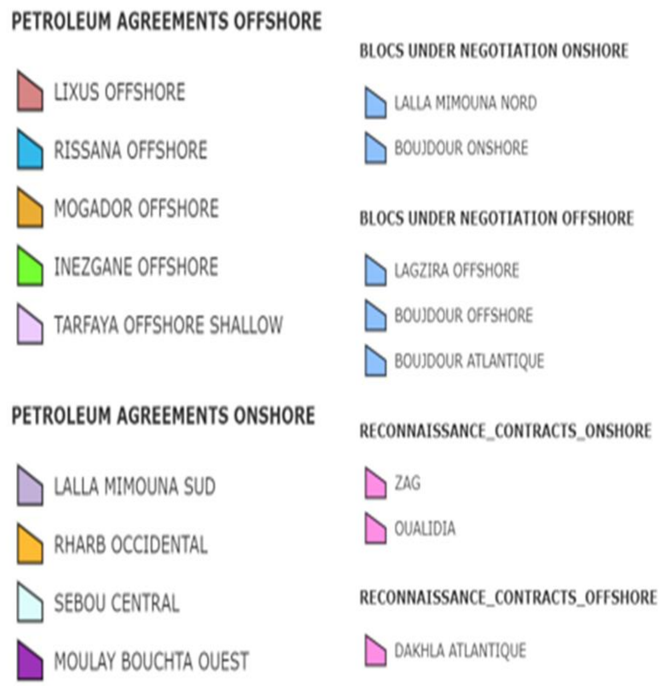
Source: Sound Energy

Morocco Oil and Gas Acreage Map



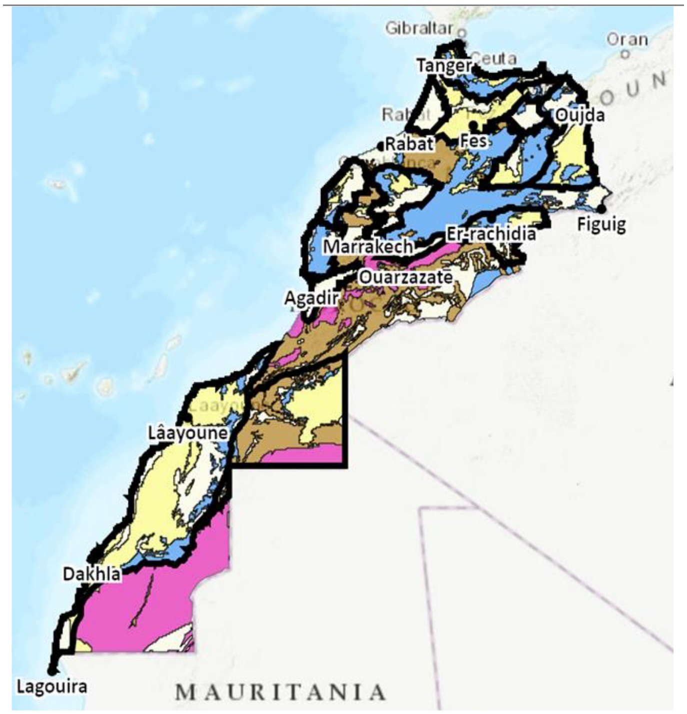
Source: ONHYM

Morocco Oil and Gas Acreage Map Legend



Source: ONHYM
Note, yellow regions represent open acreages onshore and offshore

Morocco Sedimentary Basin Map



Source: ONHYM

Morocco Sedimentary Basin Map Legend

Source: ONHYM

Moroccan economy

Economic history

Morocco experienced a drastic reversal of policy in the late 1980's from one of 'Moroccanisation' to privatisation. Moroccanisation was a domestic economic policy enacted by the then King Hassan II which transferred large segments of the private sector to Moroccan state ownership. This proved unsuccessful in stimulating sufficient economic growth to meet state ambitions and since the late 1980's the Moroccan government decided to change tack and opt for privatisation and economic reform, with encouragement from major international lenders. Measures included selling state-owned enterprises, devaluing the currency, and changing pricing policies to encourage local production.

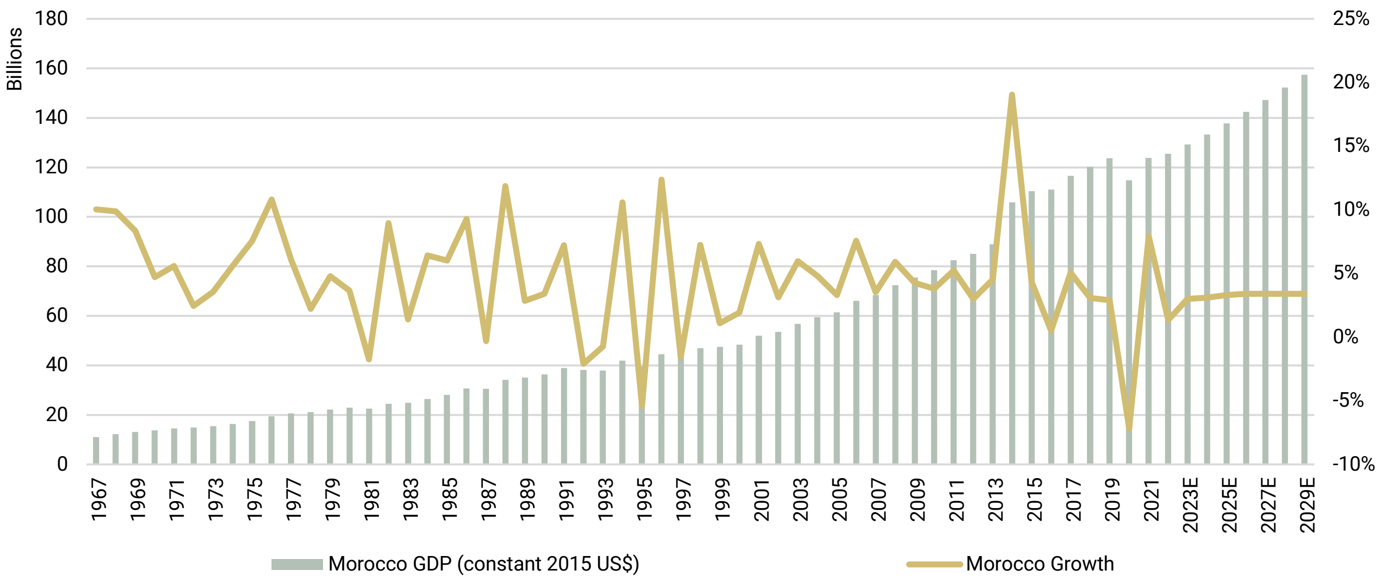
This shift in policy was somewhat more successful and overall, since the 1970's, Morocco has undergone a gradual but successful programme of economic development and political liberalisation. GDP per capita multiplied from US$550 in 1970 to US$2,770 in 2007, average life expectancy increased from 55 to 73, and considerable educational improvements have seen primary school enrolment increase from 47% to 94%.

Economic growth and stability

Moroccan GDP has increased at a CAGR of 4.3% since 1975. This is significantly ahead of many developed nations and outstrips the 3.1% CAGR achieved by the World Bank's Middle East & North Africa grouping over the same period. Economic growth has been positive in every year since the turn of the millennium, excluding the outlier year of Covid-19 impacted 2020, averaging 5.1%.

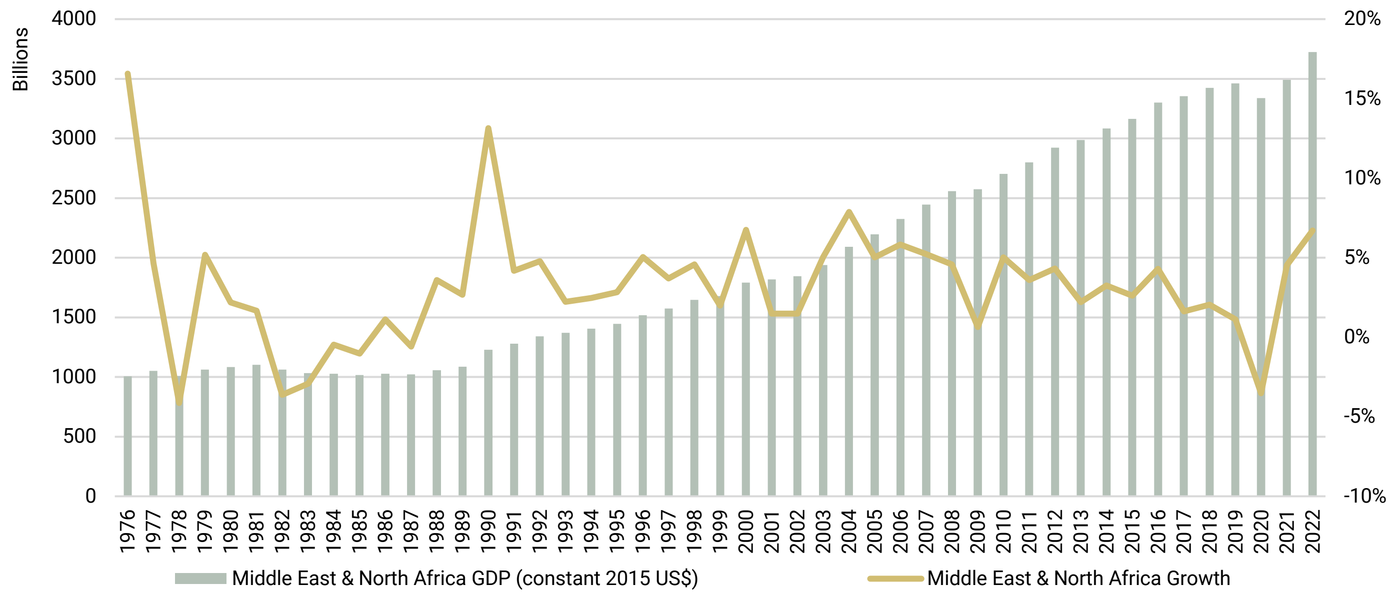
This backdrop of persistent economic growth has been the primary driver of the oil and gas demand seen above. The IMF forecasts GDP will grow at a CAGR of 2.7% from 2021-2027, maintaining steady growth and hence strong demand for energy. This supports our case for a ready domestic market for oil and gas production in Morocco which any operating companies could benefit from.

Moroccan GDP and GDP Growth



Source: World Bank and IMF
GDP is at constant currency at 2015 US$ levels

GDP Growth per Capita (%)

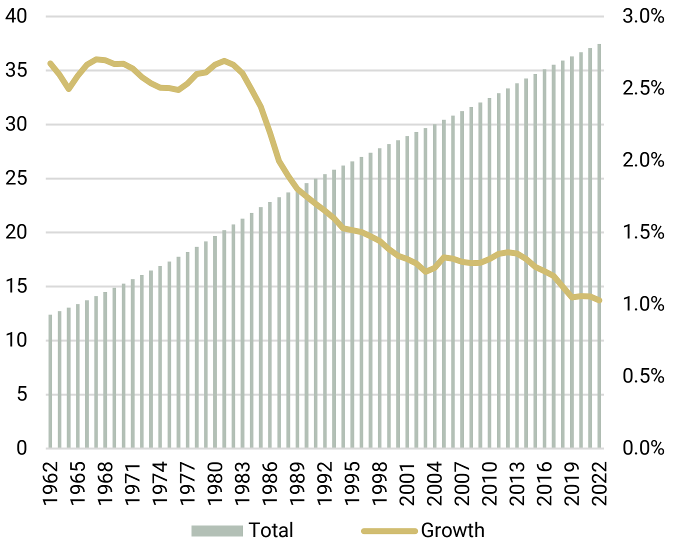


Source: World Bank

Importantly, this level of GDP growth has outstripped the 1.7% CAGR in the population, leading to a more than tripling of GDP per capita since 1975. Improvements in economic wealth at the household and individual level have a significant impact on the population's access to electricity. The proportion of people in Morocco with access to electricity has increased from 49% in 1992 to c.100% by 2017. Further population growth should therefore directly correlate to higher energy demands, with population growth having remained stable at c.1.0% - 1.5% over the last 20 years.

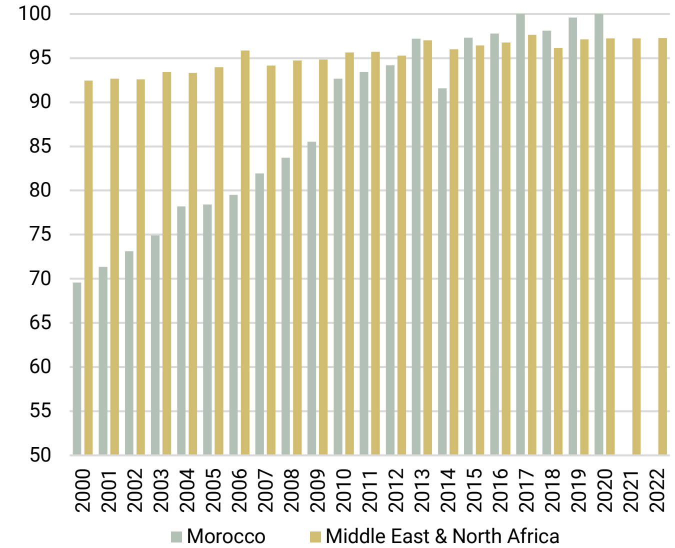
In addition, Morocco's neighbouring states across the MENA region have achieved similarly high levels of access to electricity, c.97%, meaning any energy production from Morocco could also have a substantial market to supply beyond its own borders.

Population of Morocco (millions) and Growth (%)



Source: World Bank

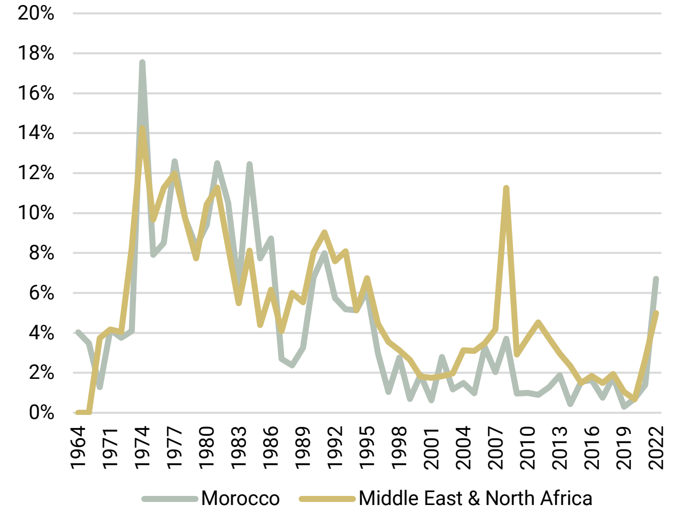
Proportion of Population with Access to Electricity (%)



Source: World Bank

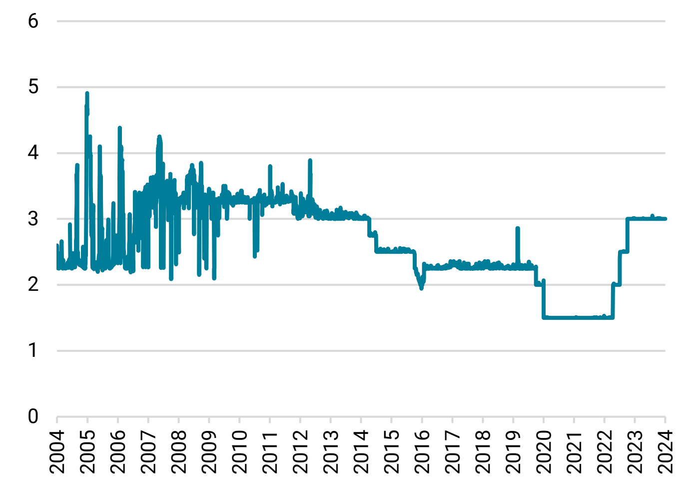
Alongside this economic development, Morocco has maintained a relatively stable inflationary environment since 2000, averaging just 1.5%, following a historic peak of 17.6% in 1974. This is despite elevated levels of inflation across the MENA region during the Global Financial Crisis in 2008-2009. As a result, the interest rate environment has also been held relatively steady by the central bank, fluctuating between 2% and 4% from 2003-2013 before being eased towards 1%-2% over the last decade. Morocco was not spared the impacts of a global inflation spike experienced throughout 2022 with the average inflation rate for the year reaching 6.7%. This was, however, less extreme than levels experienced in major regions such as the US and EU which averaged 8.0% and 9.2%, respectively. These economic conditions are conducive to business activity and attractive for international businesses to invest in the region. Evidence of this can be seen by the significant increase in foreign direct investment that started around 2000, which peaked at US$3.5bn in 2018 and most recently contributed US$2.2bn to Morocco's economic activity in 2021.

Annual Consumer Prices Inflation Rate (%), Morocco and MENA



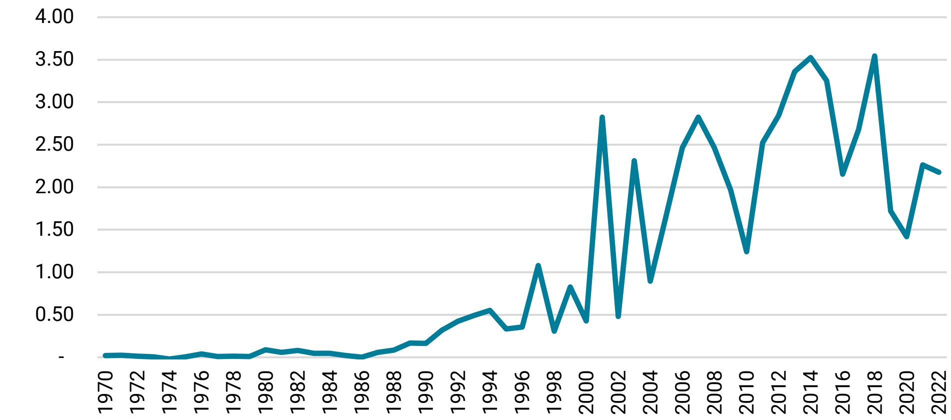
Source: World Bank

Moroccan Central Bank Weighted Average Interbank Rate



Source: FactSet

Moroccan Foreign Direct Investment, Net Inflows (BoP, current US$ bn)



Source: World Bank

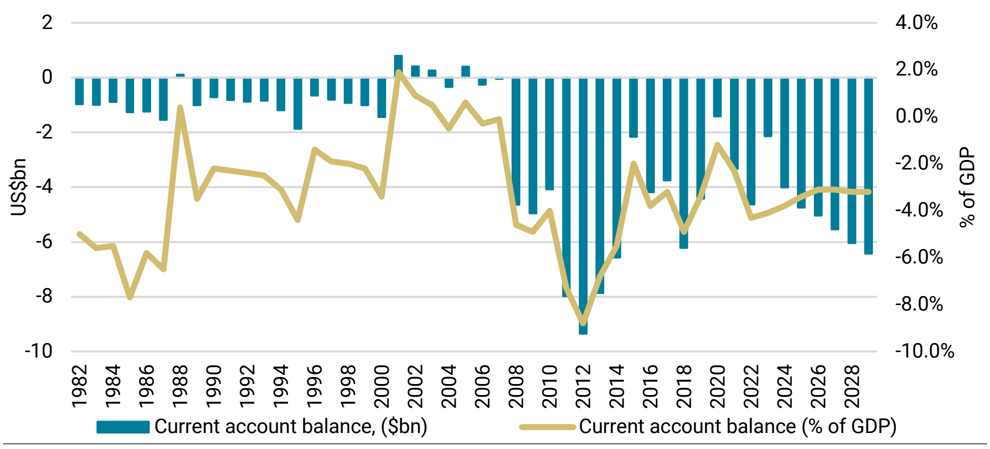
One difficulty that the Moroccan economy faces is its dependence on imports to meet its energy demands. According to the World Bank, imported fossil fuels currently provide over 90% of Morocco's energy needs. Energy imports have contributed significantly to the current account deficit Morocco has experienced consistently over the last 50 years, having only been in surplus on five occasions. Overly persistent current account deficits can be a cause for concern on the economic health of a country due to the substantial build-up of liabilities owed to the rest of the world. Negative economic consequences associated with a sticky deficit include:

- A drag on economic growth because income is spent on imports as opposed to domestic goods,
- Deteriorating exchange rate as domestic currency is sold to buy foreign currency to pay for imports. Note, this may stimulate exports to an extent,
- Increase in government borrowing/running down of currency reserves, which is unlikely to be sustainable over the long-term,
- Eventual risk of recession as imports become too expensive and consumers have to cut back on spending.

Since 2020, the current account deficit has averaged US$3.8bn in absolute terms and c.3.0% of GDP. The risks associated with a current account deficit driven by energy imports have become particularly apparent in recent times with energy inflation being so elevated following Covid-19 and the Russian invasion of Ukraine. According to Reuters, Morocco's trade deficit in H1 2022 widened by c.50%, mostly driven by the soaring energy costs resulting in a 125% increase in the energy bill faced by the country. Alongside a persistent deficit, overly large current account deficits bring fears over the health of the wider economy. Generally, a deficit over 5% of GDP is considered a cause for concern and the effects of the elevated energy inflation pushed the Moroccan deficit to a peak of 4.3% of GDP in 2022. However, IMF forecasts indicate this should tail off over the next few years back towards a more manageable 3.1% by 2027.

Unsurprisingly, the Government of Morocco is, and has been, seeking to improve this situation and increase security of energy supply by reducing dependence on energy imports for some time. Due to the necessary nature of energy to a country, however, standard government policy approaches to adjusting the import-export mix such as tariffs and quotas are not appropriate. As such, policy has been aimed at encouraging domestic production through favourable fiscal terms and other incentives, which will be considered in more detail below.

Current Account Balance



Source: IMF

Political environment

Political overview

Morocco has a Parliamentary Constitutional Monarchy whereby the prime minister is the head of a government which holds executive power and a multi-party system exists to compete for control. Similarly to many democratic nations, there are two chambers of parliament and an independent judiciary. The current political environment stems from reforms enacted by King Mohammed VI in 2011. The Monarchy is far more influential in everyday politics than other developed nation constitutional monarchies, however, as the King retains a veto over many government decisions. The Economist Intelligence Unit rated Morocco a 'hybrid regime' in 2022 and according to the Economist's Democracy Index, this indicates nations which exhibit a relatively underdeveloped political culture.

The largest barriers to doing business in Morocco arise from this lack of political transparency, overly laboured bureaucracy when making decisions, and restriction on pre-payments for imports. Companies have also often reported delays in receiving government payments. Despite the potential political risks associated with the region, however, the reforms made in 2011 have led to relative political stability which is arguably more important for a developing nation to attract foreign business, especially when compared to the conflict experienced across the African continent.

Energy policy

Moroccan energy policy is set independently by the two independent government agencies ONHYM and ONEE. Historically, a major weakness of the energy policy in Morocco has been a lack of coordination between these two agencies. More recently, however, the political system appears to have been relatively harmoniously committed to improving the self-sufficiency of Morocco across all areas, with a particular focus on improving domestic energy production. By providing very attractive and favourable regulatory terms, Morocco has become one of the top destinations for investors with respect to the risk/reward ratio on their investments.

The Moroccan government has created a favourable domestic environment through the following:

- **Legislation**
  - ONHYM plays a central role in being a one-stop shop for oil companies interested in exploring Morocco's hydrocarbon potential. It offers attractive operating and investment terms to E&P companies to work in partnership.
  - The state-owned business also helps to improve awareness of the favourable regulation governing the upstream sector by promoting legislation such as the Hydrocarbon Code.

- Morocco has made significant reforms to the banking system in recent years, including structures and programs for foreign direct investment, project finance, and trade finance.

♦ **Treaties**

- Morocco's legal system derives from a combination of French, Spanish, and Islamic laws making it complex to navigate. An improved and reliable legal system is important to attract multinational companies to invest in a country. Hence, Morocco has signed and ratified various international treaties enabling the implementation of arbitral awards, such as a 2011 agreement with the EU establishing an effective dispute settlement mechanism.
- On taxation, Morocco has signed 76 treaties on the avoidance of double taxation with countries and regional and international communities.
- Morocco has been an active member of the World Trade Organization (WTO) since 1995.
- Morocco is an active member of regional organizations such as the Arab Maghreb Union (UMA), the Greater Arab Free Trade Area (GAFTA), and the Arab-Mediterranean Free Trade Agreement.
- Morocco also signed bilateral free trade agreements (FTAs) with regional groupings such as the European Free Trade Association (EFTA), the European Community (EC), and the US.
- Underway with FTA negotiations with Canada and several West African state after having ratified the agreement to establish the African Continental Free Trade Area (AfCFTA) in 2019. The goal is to establish a single market for goods and services across 54 countries, allow the free movement of business travellers and investments, and create a customs union to streamline trade and attract long-term investment.

♦ **Incentives for oil and gas operators**

- A maximum government asset interest share of 25% via ONHYM
- Total exemption from corporate income tax, which stands at 30%, on production for ten-years following regular production
- Total and continuous exemption from all duties and taxes on the importation of equipment, materials, and consumables related to oil and gas production, alongside a total perpetual exemption from VAT and all other taxes (except withholding tax)
- Free transfer of any profits and dividends outside Morocco
- Exemption from the income tax on shares, capital rights, profits, and dividends of companies holding a producing concession
- Relatively generous royalty rates across different exploitation concessions, below, which are paid out of revenues

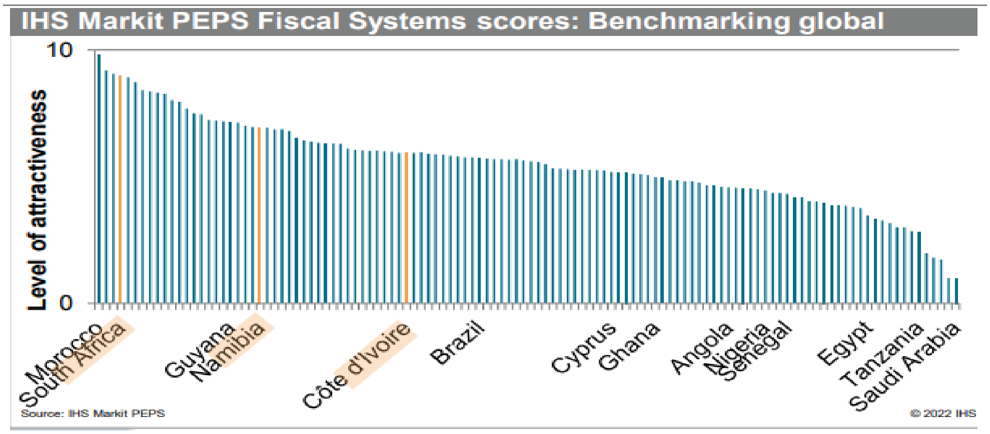
Morocco oil and gas royalty rates and exemptions

	Oil royalty	Gas royalty	Oil Exemption	Gas Exemption
Onshore & Offshore < 200m water depth	10%	5%	First 300mT	First 300mcm
Offshore > 200m water depth	7%	3.5%	First 500mT	First 500mcm

Source: ONHYM

It is important to note that many of these regulations and attractive operating terms have been in place for over a decade. Despite the intentions of the government, domestic production of oil and gas has not seen the desired increase in activity. Exploration in the country remains frontier and the infrastructure around oil and gas production is still limited. Therefore, it's not unfair to assume that these favourable terms will continue to persist well into the future. As more resources are discovered more companies could look to take advantage of these terms and subsequently develop the domestic oil and gas sector. IHS Markit score Morocco as having one of the best, most attractive, fiscal systems globally.

IHS Markit PEPS Fiscal Systems scores



Source: IHS Market PEPS

More recent developments focus on the gas potential in the country as Morocco looks to diversify its generation mix by increasing the use of LNG. In May 2021, ONHYM initiated a process looking for interest in potential public-private partnerships to develop a floating storage and regasification unit (FSRU). FSRU's are efficient and effective LNG import solutions, transporting natural gas to desired destinations without the need for onshore regasification terminals. The initial scope of the FSRU project is for an annual requirement of 39bcf by 2025, rising to 60bcf in 2030 and 106bcf in 2040. Following that, in August 2021, the Moroccan Ministry of Energy, Mines, and the Environment announced a new national roadmap for the development of natural gas 2021-2050.

ESG

ESG is becoming an increasingly important priority for the oil and gas industry as public policy and societal sentiment is increasingly focused on improving ESG standards. As such, Sound Energy operates under a clear and comprehensive ESG policy. Examples of the ESG focus Sound Energy has include:

Environmental

- Developing an LNG and piped gas project to displace coal and liquefied petroleum gas (LPG), subsequently reducing Morocco's carbon footprint
- Supporting a CO2 recovery project at Tendrara
- Advancing a development of renewable sources, solar and wind, at Tendrara to eventually provide power for all operations at the site

Social

- Creating local employment and training Moroccan nationals
- Established an academic collaboration with the Mohamed first University in Oujda and have since accepted two PhD students in Geology/Geoscience to complete their doctoral thesis in the company's offices
- Drilled the Hassi Lahcen water well in the Tendrara field, installed the required generator and electric pump, and provided three 6,000-litre PVC water tanks for local community use. Throughout 2022, Sound continued to maintain the well and provided security for the local community to ensure safe access for all

Governance

- Committed to strong corporate governance to strengthen the business and serve all stakeholders
- LSE listed entity observing QCA code

Sound Energy is committed to following the United Nationals Sustainable Development Goals

Source: Sound

Board and management

Graham Lyon – Executive Chairman

Graham is an experienced oil and gas executive with 40 years of experience across technical, operational and commercial leadership roles, including International Vice President of Petro-Canada (TSX: PCA). Graham is a Petroleum Engineer by training, and holds various directorships at listed and private energy and consulting firms.

Mohammed Seghiri – Chief Operating Officer

Over 18 years' experience in leading complex sectors, including gas storage, oil & gas exploration and power production. Joined Sound Energy from OGIF, where he was managing partner.

David Blewden – Non-Executive Director

David Blewden is currently the CFO of Sunny Hill Energy Ltd (formerly Petroceltic International), a UK private E&P company, and has been in that position since October 2016. He is also currently a non-executive director of Gulf Marine Services plc (LSE: GMS), director of Philipshill Consulting Limited, and from 2015 to January 2020 was a non-executive director of New Age (African Global Energy) Limited, a private E&P company. From 2010 to 2016, David was the CFO of Sterling Resources Ltd, a TSX-V listed Canadian E&P company and, prior to that, he held CFO positions at several start-up and private E&P companies, and worked at Yukos Oil Company from 2002 to 2006, where he was head of corporate finance. Prior to Yukos, he worked at several investment banks, including UBS and Citigroup, and started his career as a Petroleum Engineer at Shell.

Christian Bukovics – Non-Executive Director

Christian Bukovics is a senior oil and gas sector executive with for 40 years of international experience across a variety of roles. Since 2013, he has worked as founder, advisor and Non-executive director in small-cap oil and gas companies and was part of the board of LSE premium listed JKX Oil and Gas plc. Prior to this, he held several senior positions with Shell, including VP Exploration Russia and FSU, VP Commercial in Global Exploration and GD of Shell Temir (Kazakhstan). Christian holds a doctorate.

Garry Dempster – Chief Financial Officer

Garry has more than 25 years' international oil industry experience in a variety of executive, finance, M&A, asset management, technical and commercial roles with Halliburton, Total, Shell and Orsted. He also launched and led a UK upstream focused private-equity-backed start-up, securing cornerstone equity funding and a follow-on debt package. Garry is a Chartered Engineer.

John Argent – VP Geoscience

Dr John Argent is an experienced geoscientist with global expertise from over 25 years of working domestic and international oil and gas projects with Amerada Hess, Paladin Resources, BG Group and Shell in a variety of roles. John has a proven track record in new business development and exploration success. He instigated and led BG Group's entry into East Africa and Central America, delivering new core assets including the discovery of 16 Tcf of gas resources in Tanzania. Additionally, John has managed significant operated exploration programmes offshore Uruguay and Honduras. John has a D.Phil in Geology from the University of Oxford, is a Chartered Geologist and Fellow of the Geological Society.

Source: Sound Energy website

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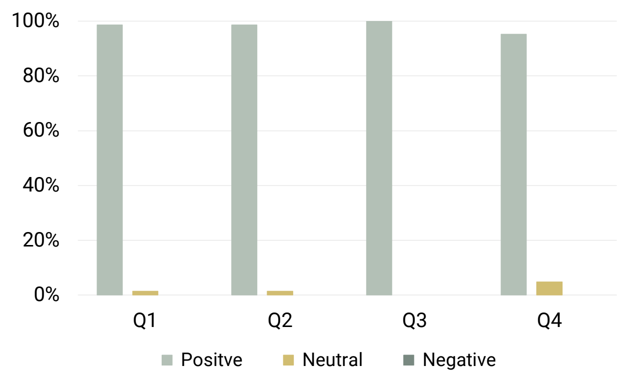

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