MENA energy investment outlook – big plans in uncertain times

MENA will push through critical energy projects, despite uncertainties that cloud the investment outlook for the region. Fully $289bn has already been committed to projects under execution while an additional $611bn worth of development is planned. Leading the drive will be Saudi Arabia, which along with the UAE and Kuwait will invest across the energy value chain. Iraq and Iran will play catch-up and are determined to push their ambitious oil and gas plans, but will face many above-ground challenges. In North Africa, Algeria has vowed to pump billions into its upstream sector. Much is also expected in Egypt as recent gas finds promise to meet rapidly rising power demand. Renewable-energy projects will be at the forefront of efforts to meet rising power demand in Morocco, Tunisia and Jordan. But there will be many challenges as low oil prices, the uncertain economic outlook, regional instability and conflicts weigh on planned investments.

Global and MENA economies

In January 2016, the International Monetary Fund updated its global growth projection to 3.4% for 2016 and 3.6% for 2017. This represents a 0.2 percentage point drop for both years compared with projections made in October 2015. Three key developments have underpinned the January revision:

1) The slowdown in China and the structural shift from manufacturing activities towards services is weighing on the global economy. Expected growth rates for China are 6.3% in 2016 and 6.0% in 2017.

2) The US growth rate has also been revised down by 0.2 percentage points to 2.6% for 2016 and 2017 on the back of recent tightening in monetary policy. Despite strong labour-market conditions and a low unemployment rate (4.9% as of January 2016), the strengthening of the US dollar is affecting manufacturing activity and exports, while low oil prices have resulted in large investment cuts in the US oil and gas sector.

3) Low oil and commodity prices are hurting growth in many parts of the world, although the impact has not been uniform across exporting and importing countries. For oil exporters, the sharp price fall has increased fiscal pressures, and in the face of large fiscal deficits, even those countries with large fiscal buffers have been forced to adjust their spending. For oil importers in advanced and emerging economies, the wealth transfer from producers to consumers — $3 trillion by one estimate — has constituted a positive shock. But its impact on growth has been less than anticipated, reflecting a highly uncertain outlook and low confidence in the short-term prospects of the global economy and financial markets.

In MENA, growth has been revised down to 3.6% for both 2016 and 2017, from 3.9% and 4.1%. For Saudi Arabia, the Arab world’s largest economy, the decline in oil revenues has altered the prospects both for government and for private-sector growth and, as a result, its growth forecasts have been revised downwards to 1.2% and 1.3% for 2016 and 2017 compared with October’s projections of 2.2% and 2.9%. Low oil prices are putting strains on the region’s energy exporters, which now face higher budget deficits and rising debts. Consequently, these countries have been cutting government spending and many have introduced limited energy-pricing reform to reduce fiscal pressure and curb rising energy demand. Overall, growth in the medium term will depend on the speed of the oil-price recovery and governments’ ability to rationalise spending and introduce much-needed structural economic reforms.

Oil markets

Global crude prices remain depressed with Brent averaging $52 and ending 2015 at $37. While oil demand grew more strongly than expected in 2015, averaging around 1.6m b/d, global crude oil stocks continued to build. Since 2014, the oil market has been adding stocks every month, and the EIA and IEA expect this to continue well into 2016, though the size of the stockbuild is projected to decline towards the end of 2016.

Despite the sharp oil-price fall, many non-OPEC countries continued to increase supply in 2015, benefiting from a period of record investment made when oil prices were above $100/b. The US remained the main source of non-OPEC supply growth, followed by Brazil and Russia. OPEC supply also rose in 2015, with Iraq and Saudi Arabia leading oil-output growth, increasing their production by around 1.1m b/d in total.

Looking ahead, we expect the market to rebalance and for prices to start recovering from the current low levels as deep investment cuts and the reduction in the number of rigs in most parts of the world start affecting production. On the supply side, US output has been the fastest to respond to low oil prices. The decline in the rig count in the US has been sharp as shale producers cut capex and shift strategy from growth maximisation to operating within cashflow. Despite efficiency gains, cuts to costs and the rising production from the Gulf of Mexico — as projects commissioned at higher high oil prices start coming on stream —year-on-year (y/y) US supply growth has been slowing in recent months. The EIA now predicts sharp y/y output declines in 2016. Overall, for 2016 we expect non-OPEC supply to
The biggest source of uncertainty on the supply side in 2016 remains OPEC and particularly Iran, which is eager to recover its market share after the lifting of sanctions. The probability that Iran will reach its pre-disruption level by the end of this year remains low, but it will still manage to increase production from shut-in fields, adding further pressure to an oversupplied and fiercely contested market. Following the Doha agreement, in which key producers such as Saudi Arabia and Russia agreed to freeze production at January 2016 levels, OPEC strategy will be a focal point for the market. This deal, while not having an impact on current balances, could represent the first step towards agreement on a collective cut towards the end of the year.

On the demand side, growth is likely to slow compared with the 2015 level, as economic expansion in different regions slows and as China continues on its path to rebalance its economy. We still expect global oil demand to grow strongly, by more than 1m b/d, as low prices persist. But such demand growth will not be enough on its own to rebalance the market and supply has to adjust.

While oil prices are expected to recover towards the end of the year, they will remain relatively weak given the high level of stocks and the flow of weak macroeconomic data which will combine to put a cap on the price. In the absence of an agreement on a collective cut or a geopolitical disruption, oil prices are not expected to exceed $50/b for the rest of 2016.

Global gas markets

Global gas prices have seen a higher degree of convergence in 2015, helped by lower oil prices, weaker demand and additional supplies. While the North America price discount remains, it has shrunk considerably. Gas demand has been disappointing: LNG imports dropped off particularly in Asia but also in Europe and South America. In Japan, the restart of some nuclear plants displaced gas used in power generation. LNG prices collapsed to less than half the 2014 levels reaching $7/MMBtu as oil-linked import prices took a similar plunge. The Middle East has offered one of the few positive demand-side stories, as countries like Kuwait and Egypt increase their LNG imports.

The start of shipments from the US Gulf coast and a ramping up of gas exports from Australia this year will place further downward pressure on prices in 2016. Cost overruns and delays have increased the breakeven cost for most projects in Australia, but output will continue to increase as these new plants were commissioned before the fall in oil prices, and capital cost is sunk. Given its low cost base and high liquid production, Qatar is in a better position than other gas suppliers. Qatar is unlikely to lift its moratorium on the North Field and increase its LNG exports; instead, its focus will be on how to optimise its LNG sales between Asia and Europe. Russia’s gas-marketing strategy in the face of tough competition will be key in determining future gas prices. To date, Russia has responded to competitive threats in Europe by adjusting its pricing and contract structures. But if it is to defend its export volumes in future, this will put further downward pressure on gas prices.

LNG trade is expected to grow at a faster rate than that by pipeline, helping to narrow regional differences in gas prices. However, deferred investment in LNG supply due to low oil prices can tighten the market in the next decade. For instance, most Canadian projects are being postponed until markets conditions improve after 2020. In Russia, LNG projects under consideration all face commercial, technical and regulatory challenges, especially under sanctions. Even in the US, final investment decisions have been delayed on many key LNG projects. As the Australian and US LNG surge is absorbed, the gas market is expected to tighten and hub prices in Europe will rise — but this is a story for the early 2020s. For the foreseeable future, LNG prices are expected to remain under pressure from the entry of new supplies and weak demand.

MENA energy investment outlook

According to the IEA, global investments in oil and gas have fallen by 20% in 2015 compared with 2014, one of the biggest drops in history. Further cuts are expected in 2016; the first time since the mid-1980s that the oil and gas industry would have cut investment in two consecutive years. Against this trend, we expect the MENA region to continue investing heavily as major energy-exporting countries expand the size of their energy sector and strengthen their positions in global markets. The GCC countries, as well as Iran and Iraq, are driving investment in the region and will be well positioned when prices take an upturn. The governments in the region’s non-exporters will prioritise investments in their domestic power sectors as electricity demand continues to rise.

In this report, we provide estimates for both planned investment and committed investment. While committed investments constitute spending in energy projects currently under execution, planned investment represents a country’s spending target to develop its energy sector. Specifically, the planned investments can be broken down into:

- Projects which are at the first phase and are classified as “under study”;
- Subsequently, those that have progressed from under study but await the Front End Engineering and Design (FEED) contract; and
Those at the last level waiting for main contracts to be awarded.

APICORP’s database is unique in many aspects. It separates planned projects from ones that are under execution. This gives us a better overview of where in the planning stage the project is, and provides us with a better indication of the likelihood that a given project will be executed. We only capture projects that have been announced; and not projects or investments that are needed in the sector, particularly for power. We also include projects in our estimates even if they will not come on line in the medium term, as investments and work will be made during our outlook period.

But there are a few limitations. First, it is not possible to capture all projects in a given country, particularly outside the GCC as some of these countries also suffer from weak institutions, security concerns, and poor business environments. It is also difficult to capture investments that are not project-based, particularly in the upstream oil and gas sector.

**Planned investments**

Planned MENA investments in the energy sector are estimated at $611bn for the five-year period. The power sector accounts for the largest share of investments, at $194bn. The oil and gas sector will represent $190bn and $149bn respectively, with the remaining investments in petrochemicals. Projects under study represent by far the largest portion of planned investments, at $262bn. Given the current investment climate and uncertain outlook, we do not anticipate that all projects under this phase will move to the execution phase. In our view, contracts under design and contract-bidding phases are more likely to materialise in the medium term. Projects under contract bid amount to $117bn, while those under design reach $66bn.

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**Planned MENA energy investment 2016-20 ($bn)**

Saudi Arabia and Iran represent nearly 30% of planned investments, with $102bn and $71bn, respectively, over the outlook period, as both countries look to boost their upstream oil and gas programmes. Saudi Arabia has concrete plans to increase gas production and the role of gas in its energy mix – currently diverted entirely for domestic use in power generation and industry. Major gas upstream plans include the Hassah sour gas field expansion, which is currently waiting to be awarded and is expected to be complete by 2019. In the power sector, the Taiba integrated-solar combined-cycle plant in Madinah will bring total capacity of 3.6GW by 2020 at an expected cost of $4bn. The project is also awaiting the awarding of contracts.

For Iran, total planned investments are $71bn, of which the majority will go towards oil and gas projects. This highlights the country’s desire to boost its oil and gas sectors. Major projects include the $4.5bn Kish gas development and the $3.5bn Iran Gas Trunkline – currently at the design phase – that plans to connect Iranian gas to Europe via pipeline to Turkey. Given the removal of sanctions earlier this year, the government has pushed efforts to attract much needed foreign investments, unveiling the Iran Petroleum Contract and announcing ambitious plans to revitalise its energy sector with more than $100bn investment in the next five years. But there are obstacles to attracting foreign investment. New entrants will have to tolerate headwinds around regulation and dispute arbitration, both of which suffer from a lack of transparency, if they want to succeed. Iran will need to maintain its commitments to the letter under the nuclear agreement to avoid the “snap-back” of sanctions. Iran’s internal political rivalries will need to be kept in check if the oil sector is to flourish. Nevertheless, there has been registered interest as foreign companies such as Eni’s Saiepm, which signed a memorandum of understanding (MoU) envisaging potential cooperation in revamping and upgrading the Pars, Shiraz and Tabriz refineries. Iran’s planned investments can exceed the $71bn and can, by our estimates, reach over $100bn over our horizon.

For Egypt, the main concern is the acute gas shortage and rising power demand. Planned investments in the country are $60bn, with the power sector representing 75% of the total. Gas development projects underway will potentially place Egypt as a net energy exporter, but not in our medium-term outlook. ENI’s recently discovered Al-Zohr field in the Mediterranean will be Egypt’s main focus in the medium term. Estimated investment in the giant gas field is around $12bn, but a final investment decision has not been made. However, we expect this to be fast-tracked given the importance of the field to Egypt’s energy security.

Planned investment in the UAE is $49bn, of which $20bn is at the contract-bidding phase. The ADCCO consortium—which accounts for more than half of the UAE’s oil output—will drive up upstream investment in our outlook. France’s Total, Japan’s Inpex and South Korea’s GS have won 18% of the concession with the remaining 22% still unallocated because of foreign companies’ reluctance to commit in the current market conditions. In the downstream, the Fujairah refinery—which has not been awarded yet—will be the major addition in the medium term.

In Kuwait, planned projects over the period stand at $38bn, with over 30% in the oil sector. However, the Kuwait Petroleum Company announced plans to invest significant sums in the next five years. MoUs have been signed with K-Sure and KEOXIM for $11bn to help finance projects. Kuwait National Petroleum Corporation (KNPC) is also studying other financing options including bonds and sukuk to fund their programmes. As a result, we estimate that Kuwait’s planned investments can reach $70bn.

In Algeria, a sharp fall in export revenues is threatening fiscal balance and investment programmes. Planned projects stand at $33bn with the Hassi Messaoud Peripheral Field Development accounting for nearly all the investment in upstream oil. A series of downstream projects totalling $11bn are at the study phase including the Hassi Messaoud and Ghadaria refineries. Still, Sonatrach has committed to investing large sums of money into its upstream sector by the end of this outlook. Thus, planned
projects could rise to as much as $75bn should their plans follow through.

Total planned projects in Morocco and Jordan amount to $16bn and are heavily skewed towards power generation. Both countries have been leading on their renewable initiatives, but the majority are still at the study stage, including subsequent phases of the giant Masen solar park in Morocco.

**Committed investments**

Investments in the energy projects currently under execution are estimated at $289bn for the five-year period. The oil sector accounts for the largest share of investments at $110bn, with the majority in upstream projects. Total committed power and gas investments are relatively equal at $81bn and $76bn, respectively, followed by chemicals at $22bn.

<table>
<thead>
<tr>
<th>Project</th>
<th>Country</th>
<th>Sector</th>
<th>Budget ($m)</th>
<th>Completion year</th>
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<tr>
<td>IGAT Gas Trunkline</td>
<td>Iran</td>
<td>Gas</td>
<td>17,863</td>
<td>2019</td>
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<td>South Gas Utilisation Project</td>
<td>Iraq</td>
<td>Gas upstream</td>
<td>17,200</td>
<td>2018</td>
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<td>Clean Fuels Project 2020</td>
<td>Kuwait</td>
<td>Oil</td>
<td>16,285</td>
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<td>Upper Zakum Full Field Development</td>
<td>UAE</td>
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<td>16,180</td>
<td>2016</td>
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<td>Khazzan &amp; Makarem Fields Development</td>
<td>Oman</td>
<td>Gas</td>
<td>16,000</td>
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<td>Jizan Refinery and Power Project</td>
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<td>Oil / Power</td>
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<td>2017</td>
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<td>Al-Zour Refinery Project</td>
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<td>15,500</td>
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<td>Saudi</td>
<td>Chemicals</td>
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</tr>
<tr>
<td>Halfaya Project Surface Facility (HPSF)</td>
<td>Iraq</td>
<td>Oil upstream</td>
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<td>South Pars Gas Field Development: Phases 20 &amp; 21</td>
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<td>Gas</td>
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<td>Moroccan Solar Plan</td>
<td>Morocco</td>
<td>Power generation</td>
<td>9,000</td>
<td>2017</td>
</tr>
</tbody>
</table>

Source: MEED Projects

Iraq is playing catch up at very challenging times when global energy investments are declining. Its planned projects currently stand at $26bn; a figure weighed down heavily by above-ground difficulties that continue to threaten existing investments. Up to $7bn worth of awarded contracts have been put on hold and a further $2bn cancelled since 2014. Meanwhile, low oil prices are damaging the government’s budget, despite oil production reaching a record of above 4m b/d in 2015. To maintain these high levels of production, the country and IOCs will need to continue investing in upstream development. In the downstream, $3bn is allocated for projects including the greenfield Maysan refinery and upgrading the existing Basra refinery. Together they will add 180k b/d to existing capacity and reduce the country’s costly import burden. The government is also committing substantial sums to the failing power sector — arguably the country’s priority — over the next five years and could take total planned investments up to $44bn.

Planned projects for the remaining GCC countries will reach $46bn. Oman’s liquids production broke the 1m b/d mark last year, with the majority of its exports going to China. However, the largest share of its planned projects are in downstream and petrochemicals. The Duqm refinery is expected to see a large portion of it $5bn budget invested over the next five years; and the $4.5bn Liwa petrochemical plant planned for 2019 is among the largest of planned projects in the country.

The majority of Qatar’s investments have come into fruition, and with the moratorium still in effect, no major projects are in the pipeline — with the exception of a few downstream projects such as the RasGas processing plant currently under study. A joint venture between ExxonMobil and RasGas valued at over $1.7bn for phase I is currently under execution, with a capacity of 1.7bn cf/d. Phases II and III are under study and would bring capacity up to 6.2bn cf/d.

Most of Bahrain’s committed investments are also in downstream. The kingdom plans to invest $15bn between 2016 and 2020, with the BAPCO modernisation programme accounting for a third of this. The aim is to increase refining capacity by 100k b/d to 367k b/d.

The GCC represents $170bn in committed investments, nearly 60% of the MENA total. Saudi Arabia leads the region with an estimated $53bn for the outlook period, of which $22bn will be in the power sector. The 2.4GW Jazan integrated gasification combined-cycle power plant will alone cost $4.5bn. The remaining investments are spread evenly across oil, gas and petrochemicals, with the $4.7bn Fadhili gas plant one of the largest investments due on line towards the end of our outlook period.

Iraq comes second, at $47bn. Oil investments account for $25bn with the ENI-led Zubair and the PetroChina-led Halfaya two of the largest upstream development projects in the country. Third is the UAE, at around $43bn, with upstream investments in Upper Zakum and power projects like the Barakah nuclear power plant.
Kuwait and Oman have committed $37bn and $29bn, respectively. In Kuwait, downstream projects represent more than half of investments under execution. The recently awarded Al-Zour refinery will alone account for $15.5bn over the next five years. KNPC will invest $11bn as part of the Clean Fuels Project aimed at upgrading and expanding Mina Abdullah and Mina Al-Ahmadi refineries. As for Oman, the government is prioritising investments in upstream gas. The BP-led Khazzan and Makarem project is the largest gas development in the country, with estimated total spending of $16bn.

In Iran, committed investment is around $28bn and mostly focused on the oil and gas sector. The country has prioritised development of the South Pars gas field, where at least $4.5bn will be invested over the outlook period. In upstream oil, the focus will be on the West Karun oil fields, particularly Yadavaran and Aradegan, expected to be the source of most of Iran’s short-term output-capacity growth. In the downstream, the Siraf refinery project, with a budget of $2.4bn, will bring capacity up by over 450k b/d.

North Africa represents the majority of remaining investments. Egypt and Algeria have together committed $32bn. In Egypt, power-generation projects are necessary and account for $9bn, with the Siemens-led 4.8GW combined-cycle power plants in Beni Suef among the largest projects. The BP-led West Nile Delta represents the majority of investment in gas under execution. Algeria will invest $8bn on gas as it focuses on developing its midstream sector as part of the country’s plan to expand total pipeline-network capacity by 30%. In Morocco, investments are focused in power generation with renewable-energy projects, such as the Moroccan Solar Plan, at the forefront of its plans.

Overall, according to our estimates, $611bn could be invested over the next five years over and above what has already been committed, bringing total committed and planned investments up to $900bn. This is an increase from last year’s $755bn estimate that excluded projects at the study level.

Challenges and constraints

While MENA is pushing ahead with its investment plans, we believe several challenges and constraints will prove pivotal in the medium term.

First, global investments in the oil and gas sector are closely interlinked with oil prices. Although some countries in the MENA region, including Saudi Arabia, Iran, the UAE and Kuwait, announced that they would go ahead with investment plans despite low prices, other countries with low fiscal buffers and competing pressures on its revenues – particularly Iraq – will have to reconsider their ambitious capacity-expansion programmes.

Second, financing projects has become more challenging. Ratings agency Standard & Poor’s has indicated that credit worthiness in MENA has deteriorated over the past six months, with average sovereign ratings of ‘BBB’. Although recent efforts to attract foreign investment have seen some success, political and economic concerns mean investors will be cautious. However, this environment also creates opportunities, as regional players would be forced to seek external finance. For instance, Saudi Aramco is seeking loans from capital markets as it looks to borrow $4.7bn to free capital from the Yasref project. Early reports also suggest that the state giant is in talks to issue Islamic bonds, while plans to sell shares in downstream assets are being studied. Likewise, Kuwait is also considering issuing bonds to help finance its ambitious upstream plans.

Finally, the region is in turmoil. Persistent conflicts in Syria, Iraq and Libya, and the emergence of a new coalition in Yemen, is reshaping the region’s geopolitical landscape. Conflicts and instability in these countries will keep investments at bay in the near term. Regional instability is unlikely to recede in the immediate future, and investors will be wary of spill-over effects in neighbouring countries.

Year 2015 was particularly unsettling for the region at a time of slower global economic growth and low oil prices. GCC governments have announced that budget deficits and government expenditures will be tightened in response. But governments will prioritise critical investments in their energy sectors. Saudi Arabia has the largest committed and planned investments in the medium term. The GCC will use investments to keep its status quo as the key supplier of energy to the rest of the world. The UAE and Kuwait have ambitious programmes throughout the value chain. Iran and Iraq will also play catch-up as investments in Iran start flowing back after years of sanctions. Investments in Iraq will continue, but security concerns, political uncertainty and a deteriorating business environment will dictate the number of new projects to come. Egypt will prioritise upstream gas and power sector investments to meet rising demand. Elsewhere in North Africa, Algeria will be interesting to observe, as large investments are needed to boost oil and gas output.
APPENDIX

The database separates planned projects from those under execution (committed investments). Projects will be included in our estimates even if they will not come on line in the medium term, as investments and work will be made during our outlook period.

**Planned investment**

Planned investment represents a country’s investment target to develop its energy sector. Pre-execution-level projects include:

- Those at the first phase and classified as “under study”;
- Those that have progressed from under study but await the Front End Engineering and Design (FEED) contract; and
- Those at the last level waiting for main contracts to be awarded.

Additionally, we capture non-project-associated estimates based on announcements from various sources that we believe will materialise within the outlook. These include, but are not limited to, IOC/NOC investment plans, ministerial announcements on specific sectoral spending, and government plans within five-year budgets.

Planned projects are by no means an estimate of what is required in each sector, especially in the power sector. In some instances, the perceived investment outlook for each country may fall below or exceed these levels.

**Committed investment**

This includes investments in energy projects currently under execution; that is, contracts for these projects have been signed. Total committed investment is the sum of the estimated cost over the five-year period based on the contract value.

**Exclusions**

There are some data limitations and these depend on region. It is often not possible to capture all projects in a given country, particularly outside the GCC, as some of these countries also suffer from weak institutions, security concerns, and poor business environments.

Our estimates do not capture investments that are not project-based, particularly in the upstream oil and gas sector, unless specifically announced (as per above).

**Sources**

A wide range of sources were used and included:

- MEED Articles
- MEED Projects
- MEES
- IEA
- OPEC
- EIA
- APICORP
- IMF
- Bloomberg
- IOC websites
- NOC websites
- Utility websites