

SUSTAINABILITY REPORT 2018

Building a Sustainable Future









HIS MAJESTY SULTAN QABOOS BIN SAID

About This Report



The body of this report is organised according to eight priority areas, which are integrated into the Company's business processes. The Company continues to aim to strike the right balance between successfully delivering oil and gas to its shareholders, whilst respecting the welfare of society and of the natural environment.

This report also integrates the Company's sustainability performance, charting its performance to operate safely, responsibly and efficiently to deliver lasting economic benefits to the whole of Oman. The report covers the economic, environmental and social impact of our performance. It was prepared using the Global Reporting Initiative (GRI) G4 guidelines.

This update is testimony to our commitment to transparency and honesty in our business dealings. We will be using it as our Communication On Progress to the United Nations Global Compact (UNGC), which we formally joined in January 2015. We remain firmly committed to the UNGC's 10 principles on human rights, labour, environment and anti-corruption.

This report can also be viewed on our website www.pdo.co.om and on our internal staff intranet.

Most of our technical functions are certified by the relevant national, regional or international bodies, and the organisation as a whole is annually audited by the State Audit Institution of Oman which is financially and administratively independent of us.

This annual report covers the 2018 calendar year and follows on from our previous Annual Sustainability Report for 2017, which was published in April 2018. It has not been externally assured but has been reviewed by the Ministry of Oil and Gas. It has also undergone the GRI Materiality Disclosures Service. Wherever possible, we endeavour to measure our practices against national and international benchmarks, such as the ISO 14001 certification. Going forward, our intention is to seek full external assurance.

If you have any queries about this report, please contact us at

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Sultanate of Oman

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Chairman's Foreword



In the Name of Allah, the Compassionate, the Merciful.

It is an honour to declare the staunch support and unwavering dedication of all those who work in the Omani oil and gas sector and who share your Majesty's vision for the sustainable growth and development of our great nation.

At a time of significant technological disruption and ongoing geopolitical instability, PDO's strategy has been simple: to stay the course in the face of oil price uncertainty and production restrictions while preparing the business to face a changing energy reality.

This means more sustainable oil and gas, driving energy efficiency in all aspects of the Company's operations, and a new PDO strategy, refreshing the business model to add value to Oman beyond operations in the concession area. This approach becomes increasingly important as the Company takes significant strides in its transition to become a fully fledged energy concern with a greater emphasis on renewables, especially solar.

But while this evolutionary change is happening, PDO remains steadfast in delivering its main mandate of oil and gas exploration and production. In 2018, staff and contractors celebrated the major milestone of 40 years of gas output without interruption. This gas has helped to power the nation, fuel the country's economic progress and provide a valuable source of export revenue.

The Company continues to deliver projects of strategic importance to the nation with ever greater efficiency and consistency. There has been excellent progress on the two

"mega" projects at Rabab Harweel and Yibal Khuff and a new chapter has opened with the signing of an agreement for the landmark 100 megawatt solar photo voltaic Independent Power Producer (IPP) project in Amin. This represents another building block in support of Oman's outstanding potential in solar energy underpinned by the success of the Miraah installation at Amal.

Across the full spectrum of its activities, PDO met or surpassed expectations and targets, bolstering safety, introducing further improvements to its operational practices – often through the deployment of new technology such as automation and artificial intelligence – and adding significant reserve volumes. I am pleased to say that the Company also maintained strong momentum on its In-Country Value journey, creating thousands more employment opportunities for Omanis, both in the oil and gas sector and beyond, and supporting new domestic supply chains.

The Company also continued to share its expertise with Government ministries and a wide range of public, voluntary and private organisations in areas such as Lean continuous improvement, training, and project management in the interest of driving sustainable development. At the same time, it engaged stakeholders on priority issues such as energy efficiency and renewable energy through a new thought leadership PDO Majlis programme while continuing to set an example campaigning in priority areas such as road safety, environmental stewardship, research and development and diversity and inclusion.

PDO will always strive to be a safe, efficient and responsible operator and protect the communities and environment in which it works. This report illustrates transparently the successes and challenges of this approach in 2018 and the concerted efforts made by all employees to support the nation day in, day out.

I renew my pledge to Your Majesty that I will guide the oil and gas industry to the best of my ability through these challenging times to ensure its ongoing contribution to the nation's success.

May Allah protect Your Majesty so that Oman may continue to progress on its path of peace, prosperity and stability under your visionary guidance and wise leadership.

Mohammed bin Hamed bin Said Al Rumhy

Minister of Oil and Gas and Chairman of the Board of Directors

Board of Directors

Representing the Government of Oman



**H. E. Dr. Mohammed bin Hamad
bin Saif Al Rumhy**
Minister of Oil & Gas, Chairman



H.E. Nasser bin Khamis Al Jashmi
Undersecretary of Ministry of Finance,
Deputy Chairman



H.E. Salim bin Nasser Al Aufi
Undersecretary of Ministry of Oil & Gas



Dr. Salman bin Mohammed Al Shidi
Director General for Petroleum
Investment Management
Ministry of Oil and Gas

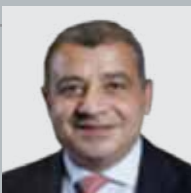


Mr. Nasser bin Sulaiman Al Harthy
Director General of Investment
Ministry of Finance



**Mr. Musaab bin Abdullah
Al Mahrouqi**
Government Board Director

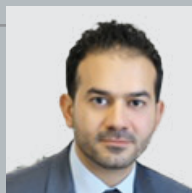
Representing the Private Shareholders



Mr. Sami Iskander
Shell, Netherlands



Mr. Christopher Breeze
Shell Oman



Mr. Walid Hadi
Shell, Netherlands



Mr. Stephen Michel
Total, France



Dr. Antonio C Silva
Partex Corporation

Executive Officer



Mr. Raoul Restucci
Managing Director
PDO

Secretary



Ms. Haifa Al Khaifi
Finance Director
PDO

Who We Are



Petroleum Development Oman (PDO) is the leading exploration and production company in the Sultanate of Oman. We deliver the majority of the country's crude oil production and natural gas supply, but above all we focus on delivering excellence, growth and sustainable value creation within and well beyond our industry.

The Company is owned by the Government of Oman (which has a 60% interest), the Shell Group (34% interest), Total (4% interest) and Partex (2% interest). Gas fields and processing plants are operated by PDO exclusively on behalf of the Government.

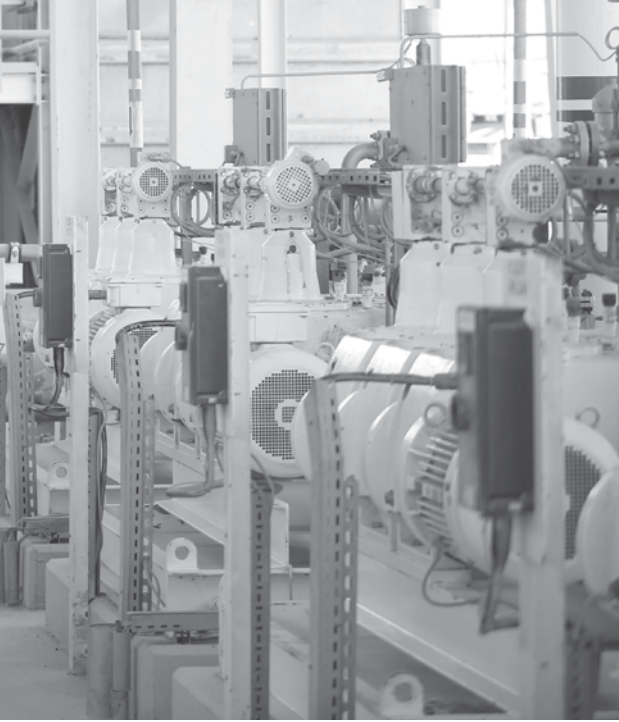
PDO is a limited liability company and operates on a no-profit, no-loss basis and is officially revenue-neutral. In 2018, PDO's capital expenditure (Capex) was US\$5.5 billion and operating expenditure (Opex) was US\$1.9 billion.

On 1 January 1980, PDO was registered by Royal Decree as a limited liability company in the Sultanate.

The Company adopted its name in 1951, first struck oil in Yibal in 1962 and has been exporting oil produced in its 90,874 km² concession area known as Block 6 since 1967. Our headquarters is based at Mina Al Fahal in Muscat.

Our mission is to find, develop and produce oil and gas safely, responsibly and profitably, in order to contribute to the sustainable development of Oman, to the benefit of all our stakeholders. We are the custodians of the major source of national income and one of the largest private sector employers in Oman. We manage a large and diverse portfolio of oilfields in terms of field sizes, reservoir and oil types, development methods and maturity. Our aim is to improve the recovery factor of hydrocarbons through the application of a combination of world-leading well and reservoir management, the deployment of the latest innovative technology, and a comprehensive gamut of recovery mechanisms including:

- **Primary**, such as fields on natural flow and artificial lift
- **Secondary**, such as fields under water floods and pressure maintenance



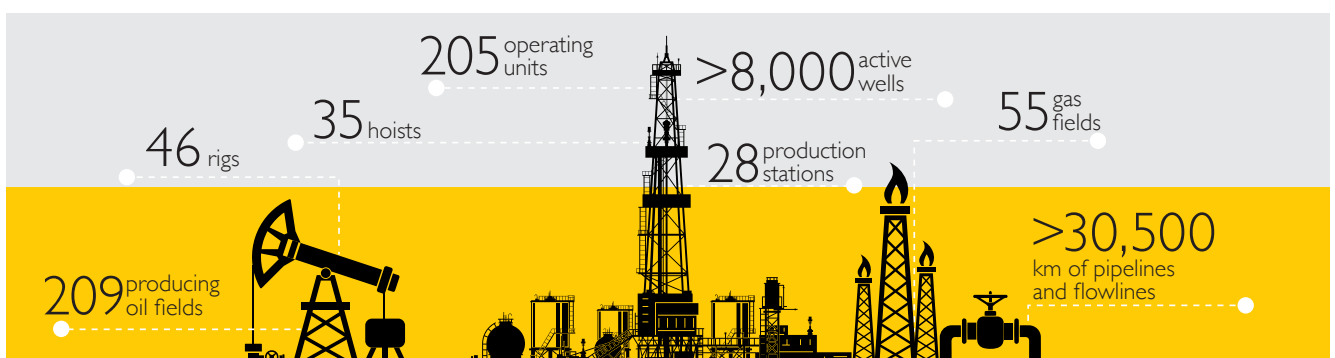
- **Tertiary**, such as enhanced oil recovery (EOR), where we work to modify the physical/chemical properties of in-situ oil.

The Company has become a global pioneer in EOR due to its maturing asset base and the complexity and challenging nature of Oman's geology and the three main methods we currently use are thermal, chemical and miscible high pressure gas injection.

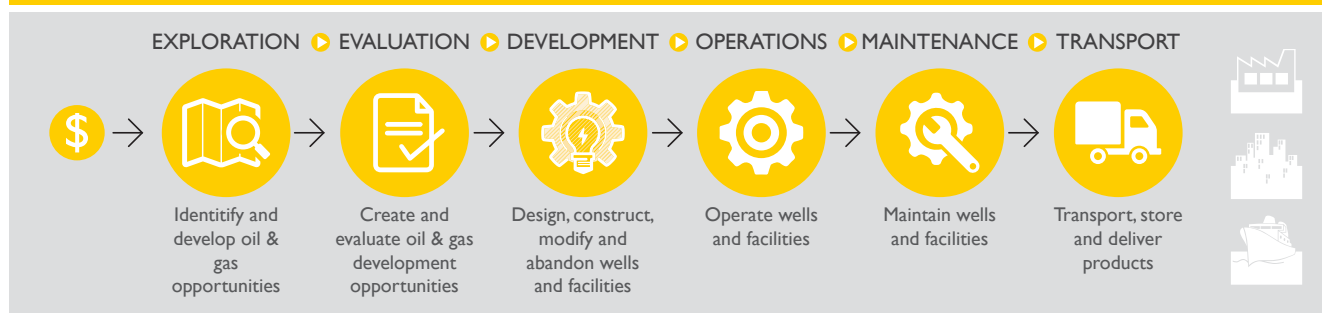
The overall aim of our strategy is to maximise production and minimise the financial costs and environmental and social impact of our operations by following best oilfield practices. This means engaging efficiently, responsibly and above all safely in the exploration, production, development, storage and transportation of hydrocarbons.

PDO endeavours to meet its wider responsibility to society by aiming to secure a social licence by taking economic, social and environmental considerations into account in all decisions, specifically in terms of the provision of oil revenues, domestic employment, staff and contractor training, the support and development of local businesses and community investment.

Underpinning this approach is our corporate vision which is **“to be renowned and respected for the excellence of our people and the value we create for Oman and all our stakeholders.”** This means the continual development and growth of our people, leading performance across our business and adopting a continuous improvement mindset to ensure we protect our reputation, sustain progress, comply



The scope of PDO business from shareholder investment to delivery of oil and gas



with standards and deliver value to all our stakeholders.

At the end of 2018, PDO had 8,596 staff and over 70,000 contracting employees, a combined workforce made up of around 70 nationalities.

To underline our position as champion of workplace diversity and equality of opportunity, in 2018 the 15-strong Managing Director's Committee comprised four women directors - a beacon for both the industry and region.

Managing Director's Committee

The Managing Director's Committee or MDC shares responsibility for the Company's overall performance and business direction.

It is headed by the Managing Director who is assisted by 14 other Directors, who are responsible for setting the technical, operational and financial standards, the allocation of staff and their development.

The MDC is answerable to the Board of Directors which

provides objectives and guidelines to the Managing Director. The Board consists of thirteen members. There are six Government representatives, including the Chairman, who is the Minister of Oil & Gas, His Excellency Dr. Mohammed bin Hamad bin Saif al Rumhy; and five who represent PDO's private shareholders (Royal Dutch Shell, Total and Partex).

General Business Principles and the PDO Code of Conduct

The PDO General Business Principles are the foundation on which our business strategies and activities are based. These lay down an expectation of honesty, integrity and fairness in all aspects of our business, including relationships with contractors and suppliers. PDO is required to conduct its affairs in accordance with those principles. We are judged by how we act and the belief that our reputation will be upheld if each one of us acts in accordance with the law and the ethical standards set out in our Statement of General Business Principles (SGBP).

The objective of the Company is to engage safely, efficiently



The Managing Director's Committee

and responsibly in the exploration, production, development, storage and transportation of hydrocarbons and gradual transition to renewables in the Sultanate. The Company seeks a high standard of performance with the aim of furthering the long-term benefits of its shareholders, employees and Omani society at large.

Our contracting-out policy is on the basis of open and competitive bidding, where possible, with transparent procedures, providing equal opportunities to qualified contractors and suppliers. We will not, directly nor indirectly, offer, solicit, accept or pay bribes, including facilitation payments, in any shape or form, and require our employees, contractors and suppliers and their employees, to act likewise. Employees are expected to exercise the utmost care to avoid putting themselves into a position where they may be called on to repay favours in a manner detrimental to the Company's interests.

Staff must not take advantage, for their own or for the profit of others, of their position in the Company or of information gained in the course of their employment. They have a duty to notify PDO of any outside interest which could, either directly or indirectly, present them with a conflict of interest, or involve them in a commercial relationship with PDO.

The principles are endorsed by our shareholders and apply equally to corporate decision making as well as the individual behaviours expected of employees when conducting business on behalf of PDO.

They are the corporate shield that helps protect our reputation and it is the duty of every employee and contractor to ensure that we adhere to these principles and uphold and protect the reputation of our Company.

Following the core values and SGBP, the Code of Conduct (COC) instructs and advises on how to avoid situations that may damage the employee or PDO. It sets standards and shows how to achieve them and demands honesty, integrity and fairness in all aspects of business. The code does not exempt anyone, and every PDO employee must operate within its boundaries of rules and guidelines. PDO expects the same in its relationship with its contractors and suppliers.

Our reputation and our future success are critically dependent on compliance, not just with the law but with the highest ethical standards. A reputation for integrity is a priceless asset. This code supports PDO in safeguarding that asset. It crystallises the basic rules,

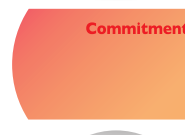
THE PDO CODE OF CONDUCT

Adherence to the conduct is pivotal and a sure way to uphold our integrity and ethical values in everything we do.



Commitment to People and Safety

- Health, Safety & Environment (HSE)
- Equal Opportunity
- Harassment
- Substance Abuse



Commitment to Fight Corrupt Practices

- Anti-Bribery & Corruption
- Conflict of Interest
- Gifts & Hospitality
- Money Laundering



Commitment to Safeguard Information and Assets

- Intellectual Property
- Data Privacy & Protection
- Records Management
- Protection of Corporate Assets



Commitment to Prudent Communication

- Business Communication & the Email Code
- Personal Use of IT & Communications
- Public Disclosure
- Financial Reporting



Commitment to Fair National & International Trade

- Free & Fair Competition
- Import-Export Control & Sanctions

Let's show our commitment. Make PDO proud.

Raoul Restucci

Raoul Restucci
Managing Director



شركة تنمية نفط عمان
Petroleum Development Oman

Link to PDO-COC: <http://www.pdo.shel.com/sites/default.aspx>

standards and behaviours necessary to achieve the core values of the Company. It provides requirements and guidance, expressed as clearly, concisely and consistently as is possible, within a single, company-wide document for all PDO employees on a number of enterprise-wide risk areas.

For this purpose, the code is categorised into five distinct sections addressing compliance in the following areas:

1. People and Safety
2. Fighting Corrupt Practices
3. Safeguarding Information and Assets
4. Communications Management
5. National and International Trade.

Violation of the provisions of the code, or of any policies, procedures, laws or regulations governing our operations, may have severe consequences for the individuals concerned and for PDO.

In January 2015, PDO became the first national oil company in the Gulf to become a member of the United Nations Global Compact – the largest voluntary corporate social responsibility initiative in the world. Under the terms of the



**SUSTAINABLE
DEVELOPMENT
GOALS**

agreement, the Company is committed to supporting the UNGC's 10 universal principles on human rights, labour, environment and anti-corruption. We also produced our first Sustainability Report outlining in detail our commitment to ethical business, the community, environment, economy and our own staff, to back our application.

PDO remains steadfastly committed to further strengthening its already rigorous internal controls and continuing its membership of the UNGC. We are also now committed to the United Nations' Sustainable Development Goals.

Anti-Bribery and Corruption

In 2011, PDO embarked on a comprehensive anti-bribery and corruption (ABC) strategy aimed at creating a culture of zero tolerance towards bribery and corruption. This strategy has proven to be effective in responding to the multiple challenges faced and PDO continues to be a champion of ABC compliance in Oman.

ABC policies and procedures are communicated on an ongoing basis to all staff. A total of 105 staff attended training sessions for Contract Holders, which included a module on ABC awareness. Furthermore, graduate and mature hire induction sessions included a session related to ABC awareness.



A mandatory online training programme for all staff is ongoing across all levels of the business with 10,751 staff and contractor employees with access to the Company's network having completed the online training at the time of writing this report.

All vendors registering with PDO continue to go through the ABC vendor due diligence process implemented in 2014 which asks questions about their ABC compliance and involvement in any fraud, bribery or other ABC-related concerns. This is supported by research conducted on the company concerned and its owners.

PDO also manages a mandatory online Conflict of Interest, Gifts, Hospitality and Travel and Confidentiality confirmation process. This process requires all staff to declare their potential conflicts of interest as well as any gifts, hospitality or travel received or paid and confirm their commitment to confidentiality annually. The Conflict of Interest and Confidentiality process for 2018 resulted in a 1.56% non-compliance rate out of a total of 8,504 active staff (those who joined before 1 October 2018), and 26.34% non-compliance rate of the 3,374 contractor staff with access to our network that were required to complete conflict of interest declarations and confidentiality confirmations. Consequences for non-compliance have been communicated to company and contractor staff and will be applied at the end of 2019.

Although no specific formal awareness or training sessions were extended to the Board and MDC in 2018, all members are fully aware of the ABC policies and procedures in place and the MDC is regularly appraised of ethics and compliance incidents and ongoing investigations. The MD and several Directors are active members of the Defalcation committee that reviews alleged and confirmed incidents of unethical and non-compliant behaviours. Further, the Ethics and Behaviours department reports on a quarterly basis to the Board Audit and Internal Assurance Committees. They include providing committee members with statistics relating to our confidential whistle blowing hotline, investigations, conflicts of interest, ABC vendor due diligence, anonymous ABC contractor survey and information on any other ongoing ABC projects or initiatives.

One allegation of corruption involving a

PDO staff member was reported during the year but was unsubstantiated.

There were no ABC-related legal cases against PDO during the year. Contracts with one business partner were terminated in 2018 due to concerns around a conflict of interest between the business partner and a PDO staff member and indications of irregularities in a tender in which the business partner had participated.

PDO is in the process of reviewing and updating its ABC-related policies and procedures. This exercise is expected to be completed during 2019.

Five grievances were raised through PDO's confidential Blow-The-Whistle hotline in 2018, one of which was "founded" with corrective measures being taken to address the grievance. Two of the matters were "unfounded" while one matter is currently under review. In the case of the last grievance, despite repeated attempts, the whistleblower has been unresponsive to requests for further details on the reported grievance, hence limiting the actions that could be taken to review the matter.

Cost Control

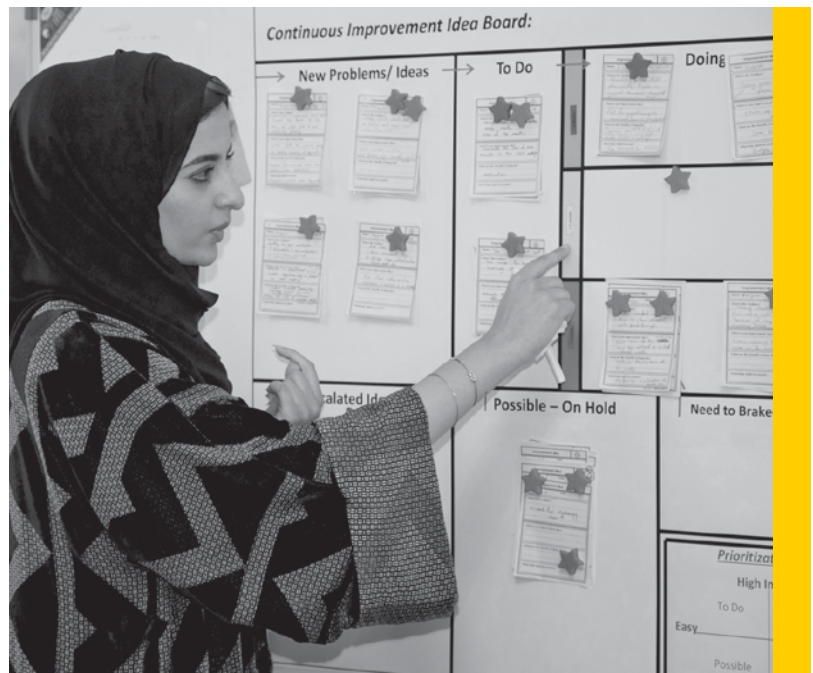
Business efficiency is a strategic aim to ensure PDO's long-term sustainability and deliver value to stakeholders. The Company further enhanced its rigorous cost management regime in the light of the lower oil price environment.

Our 2018 capital expenditure (Capex) was US\$5.5 billion and operating expenditure (Opex) was US\$1.9 billion, which includes more than US\$260 million in total cumulative savings.

There were oil Capex savings of US\$107 million, which came from a mix of drilling efficiencies, well optimisation and various project savings, and gas Capex savings of US\$54 million.

For 2019, the current capital budget is US\$5,448 million, including approximately US\$68 million of expected initial savings in oil Capex.

In 2018, the Company held 25 Cost Optimisation Reviews (CORs), which are focused, multi-day workshops where PDO, together with the relevant contractor,



identified opportunities for efficiency enhancement and waste elimination. These identified a potential cost saving of US\$60 million over a 3-4 year period. In addition, a further sum of approximately US\$240 million was identified through our Low Oil Price Response (LOPR) programme, and other value improvement ideas and cost saving opportunities. Projected savings from both CORs and LOPRs are US\$300 million.

Funding

During 2018, PDO presented a number of proposals to shareholders that would leverage some of PDO's assets, but which were put on hold due to overall medium term fiscal policy and debt strategy of divesture.

The US\$4 billion Pre-export Finance facility PDO secured on behalf of the Government in 2016 was successfully refinanced during 2018 for a further two years. The repayments are scheduled to start from the third quarter of 2020.

Memberships

PDO is a member of the:

- United Nations Global Compact
- Regional Clean Sea Organisation
- Gulf Co-operation Council (GCC) National Oil Company Steering Committee
- GCC Standardisation Organisation
- Oman Society for Petroleum Services (OPAL)
- International Association of Oil and Gas Producers (via Shell)
- International Petroleum Industry Environmental Conservation Association (IPIECA)

PDO is also the first oil company in the Middle East to be ISO 14001-certified for environmental management, and the first company within the Shell network to receive the ISO 55001:2014 certification for the 'Management of Assets to Support Production, Treatment, Storage and Transport of Oil and Gas' by the Lloyds Register Quality Assurance (LRQA).

Managing Director's Foreword



It is an honour to present to Your Majesty Petroleum Development Oman's Annual Sustainability Report for 2018, which charts our performance and activities in a challenging but banner year, in which we celebrated 40 years of uninterrupted gas production.

The report documents our unremitting efforts to continue delivering on our vision of excellence and value creation, while also ensuring we provide full support to Your Majesty's vision of sustainable growth.

It outlines our stakeholder expectations, material areas of concern, how we have addressed them and what more needs to be done going forward. At the same time, it also reflects our determination to pursue a sustainable business model, support economic diversification, invest in our communities and protect our environment. In line with our evolutionary approach to becoming a fully fledged energy company, with a greater focus on renewables.

Against a backdrop of fluctuating trends in the global market, I am pleased to announce that in 2018, PDO exceeded performance expectations across a wide range of asset and functional targets including health and safety, production, exploration, well engineering and job creation.

We have successfully migrated to being the country's swing producer as guided by the Ministry of Oil and Gas, requiring us to operate in a highly dynamic mode, frequently

compensating for (unplanned) third party production variations. At the same time, we also had to cope with the impact on our operations of Cyclones Mekunu and Luban. Despite these demands, we achieved oil production of 610,170 barrels per day (bpd), the highest since 2005.

The average Government gas supply during 2018 was 64.8 million m³/d, consistent with customer demand and our role as gas swing producer. During the year, in which we celebrated four decades of uninterrupted gas supply, PDO was able to exceed gas delivery to Oman LNG for export, contributing to the shipment of seven additional cargoes.

The Exploration Directorate had a very successful year with new oil and gas bookings made across Block 6. It also achieved an outstanding performance in land seismic acquisition by achieving a new record of nearly one million vibrator points in one month. We expect this performance to improve even further with the completion of the first Ultra-High Productivity seismic acquisition survey, a massive operation involving over 700 personnel and the driving of nearly seven million kilometres without any Lost Time Injuries (LTIs). This new technology will continue to support our exploration efforts to sustain PDO's growth agenda. The Geomatics department continued to build on its exceptional safety performance and has now registered a record 37 years without an LTI, despite working in some of the most challenging terrain and conditions in the world.

As ever, safety remains our overarching priority and we achieved a record 0.15 Lost Time Injury Frequency (LTIF) compared with the improved performance of 0.20 in 2017 – a 25% fall. Another record was the 0.71 Total Recordable Case Frequency (TRCF) against 0.72 in the previous year. On the road safety front, we celebrated the achievements of driving more than 750 million kilometres without a work-related motor vehicle fatal incident and an official Guinness World Record for the installation of the highest number of solar reflective lights ever on a road. There was also a slight reduction in the Severe Motor Vehicle Incident Rate of 14% (0.07 to 0.06) compared to 2017.

Furthermore, I am happy to report a 77% fall in the number of Tier 1 process safety incidents and a 50% drop in Tier 2 incidents – both the lowest since 2010.

These improvements highlight the ongoing concerted effort across the Company to enhance safety and operational excellence at the frontline through better supervision, awareness, training, consequence management and the continuous implementation of new systems and technologies with a view to engender an enhanced safety culture. Regrettably, the impressive results were overshadowed by the deaths of two contractor employees at Nimr in April and Yibal in July and 32 LTIs.

This is a stark reminder of the need for constant focus on achieving Goal Zero, of no harm to our people, assets or environment. At all times, we need to remain vigilant in regards to working conditions and make sure we fully comply with our Golden Rules and Life Saving Rules. Our new in-house behaviour-based safety programme Ihtimam (I Care) has already led to improvements in communication, safety leadership and outcomes and so it has been expanded to cover more than 20 facilities. Likewise, more than 1,300 well engineering front line supervisors, including drilling contractors, have now been trained on our Front Line Safety programme for supervisors and we envision it will be rolled out to all PDO staff and contractors in the future.

Another key priority is In-Country Value as we strive to support Your Government's efforts to diversify the economy, provide work for Omani jobseekers and build robust domestic supply chains. Overall, we awarded contracts worth US\$3.7 billion to nationally registered firms, retaining a value in country of 44%.

Our National Objectives team generated more than 17,000 employment opportunities, exceeding the very ambitious target for the year, in both the oil and non-oil sectors. Such was the success, we have decided to increase the target in 2019 from 19,000 to 21,000.

In the fifth year since the unveiling of the ICV Strategy Blueprint for the oil and gas industry, we continue to lead 38 of the 53 opportunities to build local capability and capacity by supporting the opening of plants, workshops and factories supplying vital goods and services to the sector. One such



was last year's inauguration of the Gulf Starch Plant in Sohar, Oman's first and only manufacturer of drilling starch.

Ensuring the Sultanate has a flourishing SME community, we began partnering with PhazeVentures, the first Omani private venture capital company founded to unlock the untapped potential of our young entrepreneurs and develop the local business ecosystem. We are working together to identify and scale companies offering innovative solutions to upcoming energy needs with the aim of creating a global centre of excellence in future energy technologies and efficiencies. So far, five have been selected and the goal is for the start-ups to test their propositions within PDO and provide meaningful ICV proposals to boost the national economy.

This initiative very much reflects our collaborative approach to work with local and expert partners on research and development. PDO and Sultan Qaboos University signed the first four R&D agreements through the Ejaad platform, set up with the Ministry of Oil and Gas and The Research Council to ensure closer alignment between academia and industry and share technical opportunities and challenges.

Some of the areas where we need to develop solutions relate to environmental sustainability and energy management where we must try harder in the face of mounting climate change realities.

We have made tangible progress in our deployment of solar technologies, such as the ongoing work at Miraah and the Mina Al Fahal car park, and the independent power producer project at Amin, the world's first utility-scale solar project to have an oil and gas company as the sole wholesale buyer of electricity.



We improved environmental performance across many aspects, including oil spills and waste management. However, there were increases in greenhouse emissions and gas flaring, partly due to equipment failures. We have developed comprehensive roadmaps to address both, and intend to reach the target of zero routine flaring well before the World Bank's 2030 deadline.



The Managing Director's Committee



Our comprehensive Estidama (Sustainability) programme is being rolled out across the business centralising all our energy management and 'green' campaigns while helping to build a positive environmental culture across Oman. One such aspect was the launch of a drive to ban single-use plastics across our operations.

In this respect, it is important to fully communicate and engage with our stakeholders in the endeavour to reduce our environmental footprint and the new PDO Majlis thought leadership programme has been invaluable. Two of the four expert sessions were on energy management and renewable energy and proposed a number of recommendations as well as raised public awareness of the need for a "greener" economy.

Protecting and promoting PDO's reputation remain key. In total, 2018 saw the publication of more than 70 PDO press releases, the execution of more than 140 media engagements, interviews and activities and almost daily social media updates on a wide variety of activities, topics and campaigns across the Company's five social media platforms.

As well as communicating with our communities through stakeholder engagement programmes, mainstream and new media, we have continued to support them through targeted social investment in the areas of learning and research, community infrastructure development, health, safety and environment (HSE), and youth and female empowerment. The rationale is to create sustainable benefits for Omani society in line with the United Nations' Sustainable Development Goals. Last year, we committed to 36 new social investment



projects, totalling around US\$15.5 million, which will have tangible impacts on the quality of life of thousands of people living in our concession area and beyond,

There was an impressive project delivery performance with, for example, the second phases of the Saih Nihayda and Kauther depletion compression projects coming on stream in June, well ahead of the planned date in 2019. The Tayseer Early Development Facility set a new record after being successfully commissioned in just 23 months, well ahead of the standard project schedule.

There was also good progress on PDO's two mega projects. The Rabab Harweel integrated project (RHIP) represents the largest reserve addition (more than 500 million barrels of oil equivalent) and capital project in PDO history. It integrates sour miscible gas injection in multiple oil reservoirs with production and pressure maintenance of a government gas condensate field which also contributes to Oman's overall gas demand. The pre-start-up audit of utility systems was completed, and the project is on track to come on stream by mid-2019.



Proud PDO scholars celebrate their graduation

We achieved a key milestone at Yibal Khuff with the delivery of an export compressor to the construction site and the project remains on track to be on stream by 2021. Both projects are being built with hundreds of highly skilled Omani welders who learnt their trade on our pioneering 6G welding programme.

PDO continued with our endeavour to improve capital efficiency and deliver competitive projects. An engineering reorganisation, aimed at centralising the execution of all projects, enabling higher productivity, greater consistency and compliance, and faster decision making and project delivery cycles, was completed achieving its “go-live” target of January 2019. This will enable greater value chain integration between assets, well engineering and project delivery as we work to optimally deploy our resources and tools with a One PDO mindset whilst further enhancing the skills development and capabilities of Omanis.

This restructure presaged a broader organisational restructure which was introduced this January along functional and asset lines. This will instil greater rigour in defining and setting standards, processes and tools and deploying new technology, and see us move from a risk- to rule-based approach, ensuring stronger implementation compliance.

This new structure will be underpinned by our ongoing roll-out of Lean processes, procedures and projects which are transforming the way we work to enable us to do more for less. In 2018, this supported the delivery of 142 efficiency improvement projects, securing US\$152 million in cost savings. So far, more than 15,700 ideas have been generated

from across the Company and more than 6,000 have been implemented.

We continue to encourage all staff to challenge costs and discretionary expenditure, and regularly assess and compare their levels of productivity and performance against leading industry benchmarks and continuously improve how they work in PDO. It is the responsibility of everybody to adapt to changing needs and more agile ways of working to create more value in support of Oman’s near and longer-term sustainability.

This also means continuing to make progress beyond our concession mandate, specifically in areas where we are competitively advantaged because of know-how, opportunity and resolve.

To support our external service delivery efforts, and to better leverage internal capabilities for an expanding and more sustainable future, our New Business Development team is now exploring how to commercialise our expertise in areas such as project management, training, Lean, field development and enhanced oil recovery.

There is no doubt that the advent of the Fourth Industrial Revolution paves the way for greater innovation through the deployment of new technologies, including artificial intelligence, Big Data and automation. We have appointed a new Chief Information and Digitalisation Officer to oversee a reorganisation of the Information Management and Technology department so that we are ready to exploit the myriad opportunities.

There are currently more than 220 ongoing digital projects across the organisation, including more than 20 regarded as key future-centric technologies such as machine learning, robotics and predictive analytics. Drone and smart mobility technologies are also gaining greater adoption, reducing HSE exposure in the field and facilitating faster communication between the Coast and Interior.

These technologies are already making a substantive impact on our business in terms of risk mitigation and production optimisation.

For example, on well and reservoir management, the introduction of automated beam lift technology (known as BLADE) across 80 wells at Amal East has resulted in a 31% reduction in breakdowns and millions of dollars of added value with a 35% increase in oil production. This system can be replicated to many beam pump wells across PDO.

PDO intends to carry on leading by example whether it be pioneering such new technology or setting new industry standards or raising public awareness or key issues. We are proud to retain our membership of the UN Global Compact, the world's largest voluntary corporate social responsibility initiative. We remain committed to its 10 principles on human rights, the environment, labour and anti-corruption, and embedding them in our strategy, culture and day-to-day operations. These principles underpin our core values and ethical approach to business and provide the framework in which our staff and contractors are encouraged and expected to operate.

Our people remain our main asset and we have stepped up our efforts to attract, retain and develop the best talent, while extending Omanisation and empowering our female staff. The 2018 People Survey, which had a record 81% response, indicated an ongoing pride among staff about working for the Company.

We are confident that continuing efforts around Diversity and Inclusion (D&I) to address gender balance, fairness and bullying, will enhance our reputation as an employer of choice. For example, our remote working pilot Maktabi was expanded to encompass more staff, D&I training and promotion were stepped up and maternity benefits enhanced. I am pleased to report a record number of women on staff and we hope to increase this percentage from 12% to 20% by 2022.

Going forward, we aim to stay true to our strategic imperatives, while consistently seeking greater efficiency, striving to exceed expectations and leveraging new technology as an enabler to safer, more responsible and productive operations. Your Majesty can be sure that we remain committed to our vision of excellence and value creation in support of Oman's sustainable development and future prosperity.



Raoul Restucci
Managing Director



Our Stakeholders and Priority Areas



PDO is the central engine of Oman's economy and its activities and performance directly impact the fortunes and futures of a rich diversity of stakeholders, including local communities, Government, shareholders, customers, suppliers, regulatory bodies, municipal authorities, academia, non-governmental organisations, the media, and, of course, employees and contractors.

Our determination to be a good corporate citizen, which puts sustainability at the heart of all it does, necessitates that we regularly engage with our stakeholders to understand their needs, opinions and expectations, and any concerns they have about our business and its impacts.

PDO believes it is important to engage with our key stakeholders and honestly and clearly report on our achievements and activities, while at the same time receiving feedback from them as this helps us to respond to any concerns and continuously improve our performance.

Our reporting focuses on the economic, environmental and social challenges that matter most to our key stakeholders and their feedback and information come from a variety of sources, including formal and informal face-to-face and telephone meetings, visits, workshops, surveys and online communication.

Stakeholder engagement continues to play a vital part in building and protecting PDO's reputation and use as pull-out quote in the opposite page and a wave of new ones introduced in 2018.

PDO again hosted a series of local and international VIP delegations in its Mina Al Fahal head office and Interior locations aimed at fostering understanding and engagement. Highlights included an official visit from His Highness Sayyid Shihab bin Tariq Al Said, Personal Adviser to His Majesty and Chairman of The Research Council (TRC). There were also delegations from State Council members, the Ministry

There was a significant drive to enhance stakeholder relations



of Manpower and TRC who were given presentations on technological advancements in oil and gas exploration and production and In-Country Value.

As well as such high-profile engagements, there were also numerous face-to-face and telephone meetings with stakeholders including local communities and their representatives, Government, shareholders, regulatory bodies, non-governmental organisations and academia to discuss opportunities, concerns and challenges.

To strengthen stakeholder partnerships, PDO signed five Memorandums of Understanding (MOUs) with the National Research Centre for Environment Conservation, the Ministry of Endowment and Religious Affairs, the Public Authority for Mining, the Ministry of Tourism and the University of Oman.

The year saw the launch of the PDO Majlis thought leadership programme. Four events on renewable energy, In-Country Value, social investment and energy efficiency were held in Muscat, Salalah and Sohar and attracted more than 500 attendees. There was very positive feedback from primary and secondary stakeholders, underlining PDO's role as a major contributor to Oman's economy and the country's sustainable development, and a number of recommendations were proposed.

Some of those derived from the energy efficiency Majlis,

for example, included the need for a national action plan with clear strategies, policies and projects to boost energy efficiency in the Sultanate; the establishment and strengthening of strategic partnerships with the Ejaad research and development platform and external associations; and the inclusion of energy efficiency as a pillar in Oman's energy resilience strategy.

The Government Relations team also launched the Khebra project, mainly focusing on providing on-the-job training and knowledge sharing sessions for public and private sector stakeholders. The project delivered training to more 190 trainees mainly from government bodies and knowledge sharing sessions to more than 1,000 staff from around 60 organisations.

With a heightened debate around environmental sustainability and climate change, PDO continued its support for, and participation in, the Oman Energy Forum, which in 2018 was staged to discuss challenges and opportunities in implementing the country's energy transition to enable more sustainable economic development. PDO also partnered with the EU-GCC Clean Energy Technology Network to host an Executive Energy Efficiency Workshop focusing on solutions and methodologies for the industrial and building sectors.

PDO was prominently involved in events which attracted global attention. The Company provided logistical, transport, technical, media and stakeholder engagement support to the



The AMADEE-I8 team with PDO staff and other stakeholders

“AMADEE-I8: Mars Simulation Mission in Oman.” Staff and contractors hosted around 20 astronauts from the Austrian Space Forum in Marmul working closely with a number of stakeholders such as the Oman Astronomical Society and Ministry of Defence. Additionally, PDO hosted the 9th World Heavy Oil Congress – the first time the prestigious event had been held in the region – which attracted hundreds of delegates from across the world.

PDO carries out an external reputation survey every three years and the next one is planned for 2020.

In the last one, in 2016, 1,013 face-to-face Interviews were conducted. For 86% of the respondents, PDO has a favourable brand rating and the Company also has the highest awareness among oil and gas exploration and production companies in Oman.

The top challenge which respondents believe that PDO faces is to create more job opportunities for Omanis (23%) and we have continued to ramp up our efforts in this regard going beyond our natural boundaries to create more than 17,000 training and work opportunities during the year in both the oil and non-oil sectors of the economy, exceeding our target.

Other top challenges include the developing renewable energy (18%) and protecting the environment and safety of people (16%), two areas in which PDO has seen great improvements in 2018 with the introduction of a raft of new initiatives (see chapters on General Welfare, Environmental and Safety Performance and Environmental Sustainability and New Technology).

On the area of issues management, there have been constant engagements with the various Government and private

parties to co-ordinate efforts, address the concerns and work in a constructive manner to settle various issues.

Six industrial issues were resolved successfully during the year including the widening of the Muscat Expressway with a potential risk to a pipeline, a water treatment plant at Zukait and two falaj (irrigation channel) problems at Bidbid and Samail. A labour relations matter involving 6G welders and the Consolidated Contractors Company was also successfully managed.

Community Relations

Our Community Relations team is continuously working to enhance the relationship with external stakeholders in our concession area and with the locals residing in areas close to PDO operations. The team actively assesses the different types of impacts on the communities and mitigation plans to deal with these.

Any concerns or questions raised from the community side are assessed and then escalated to the concerned PDO departments for further investigation and an action plan is formulated to address them.

The team also continues to conduct screening reports for new projects to identify potential impacts on the community and formulate action plans, such as possible social investment projects that could improve the quality of residents' lives.

For example, local communities around the Standardised Satellite Fields Development project in Rakid, Shaleem were engaged on potential project impacts and key stakeholders were involved in the discussions.



In 2018, continuous efforts were made by the Community Relations department to mark all the graded roads in PDO's concession and re-assess their maintenance plan, especially for the ones most used.

There was ongoing work to build robust communication channels with villagers and municipal leaders to address any concerns they might have directly. Formal engagements were held with locals about the construction of a solar-powered water well and reverse osmosis plant at Awifiya, Bahla (see Environmental Sustainability and New Technology chapter).

The Community Relations team, along with colleagues from different departments, also addressed a number of concerns raised by communities in the Marmul area about the distribution of electricity.

Communication

Maintaining and enhancing PDO's public profile and reputation continue to be one of the Company's top priorities. In total, 2018 saw the publication of more than 70 PDO press releases, the execution of more than 140 media engagements, interviews and activities and almost daily social media updates on wide variety of activities, topics and campaigns across the Company's five social media platforms.

Social media remains a key focus for PDO to reach a wider audience and increase digital brand visibility. The Company's LinkedIn account is the most followed Omani corporate account in the Sultanate with more than 200,000 followers. In addition, PDO has been able to grow exponentially on other platforms with more than 37,000 followers on Twitter; almost 29,000 followers on Instagram and 13,000 followers on Facebook. Our YouTube channel has almost 2,000 subscribers.



From ongoing engagement and inputs, we have drawn up our Materiality Matrix covering our major aspects, the current potential impact on our business and level of concern to our stakeholders.

Stakeholder	Key Issues Raised	Our Response
Government, shareholders, State and Shura councils (via face-to-face and telephone meetings during the year)	In-Country Value (jobs, training, Omanisation) Renewable Energy Value Creation Funding/ Cost Control/Lean Personal and Process Safety Digital Disruption	See MD's Foreword, and sections on Exploration and Hydrocarbon Maturation, Hydrocarbon Production and Reservoir Management, In-Country Value, General Welfare, Environmental and Safety Performance, Environmental Sustainability and New Technology
Employees (via online People Survey, town hall engagements, face-to-face meetings during the year, PDO Trade Union)	Core Values Diversity and inclusion Remote Working People Development and Training Omanisation Operational Excellence Quality Healthcare	See MD's Foreword, and sections on Operational Excellence, People and Staff Development and General Welfare
Communities, including municipal authorities, governors, and walis (via face-to-face and telephone meetings during the year)	Job and Training Opportunities Infrastructure Development Social Investment Environmental Stewardship	See MD's Foreword, and sections on In-Country Value, General Welfare, Environmental and Safety Performance and Environmental Sustainability and New Technology
NGOs (via face-to-face and telephone meetings during the year)	Need for Ongoing Support (both Financial and Non-Financial)	See MD's Foreword and section on General Welfare
Business partners and suppliers (via face-to-face and telephone meetings during the year)	Cost Control Personal and Process Safety In-Country Value Contracting and Procurement (incl. Contract Optimisation Reviews) Digital Disruption	See MD's Foreword and sections on In-Country Value, General Welfare, Environmental Sustainability and New Technology
SMEs (via face-to-face and telephone meetings during the year and new online Daleeli system)	Working with PDO Technical and Financial Support	See MD's Foreword and section on In-Country Value
Academia (via face-to-face and telephone meetings during the year)	Employment Opportunities for Graduates Closer Collaboration on Research and Development Digital Disruption	See MD's Foreword and sections on In-Country Value and Environmental Sustainability and New Technology
Customers (via face-to-face and telephone meetings during the year)	Reliable, Sustainable Delivery	See MD's Foreword and sections on Exploration and Hydrocarbon Maturation and Hydrocarbon Production and Reservoir Management
Media	Reliable and Regular Flow of Timely, Relevant and Accurate Information	See this chapter and MD's Foreword

Material Aspect (including key topics)	Aspect Boundary (internal and external)
HSE Impact <ul style="list-style-type: none"> • Safe Operation • Environmental Sustainability • Energy Management • Water Management 	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Economic Performance <ul style="list-style-type: none"> • In-Country Value • Omanisation – Jobs, Training • Economic contribution • Lean 	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Sustainable Business Model <ul style="list-style-type: none"> • Funding/Cost Control • Continuous Business Improvement (Lean) • Technical Innovation 	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Operational Performance <ul style="list-style-type: none"> • Exploration and Production 	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Employee Satisfaction <ul style="list-style-type: none"> • Training and Development • Remuneration • Employee Engagement • Recruitment and Retention • Employee Well-being (including Occupational Health and Safety) • Diversity and Inclusion • Remote Working 	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Community Commitment <ul style="list-style-type: none"> • Social Investment • SME Support • R&D Collaboration With Academia 	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Corporate Governance	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Business Ethics	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Supply Chain Management	PDO (as a whole), Government, Community, Customers, Suppliers, Contractors
Customer Satisfaction	PDO (as a whole), Government, Customers

Exploration and Hydrocarbon Maturation



2018 Highlights

- Booked 119 million barrels of contingent oil resources
- Booked significant gas volumes (4.5 Tcf) largely in Mabrouk area
- Significant oil discoveries in Rakid South (Gharif) and Ara (Mowaffaq and Shujairat East)
- Completed first Ultra-High Productivity (UHP) 3D Wide Azimuth (WAZ) seismic data acquisition
- Zero Lost Time Injuries

Exploration and hydrocarbon maturation concentrates on the subsurface aspects of field development plans: finding hydrocarbon-bearing reservoirs; appraising their size, structure and properties; accurately simulating the way in which the hydrocarbons flow through them into the wells; and then deciding – in light of all the data and all the uncertainties – how best to extract the hydrocarbons from them. The task of discovering and appraising new reservoirs is entrusted to the Exploration Directorate. The field simulations and conceptual planning are done in PDO's Field Development Centre. It allows most of the Company's reservoir engineers and production geologists to plan properly for the future without being side-tracked by the exigencies of short-term production.

The Exploration Directorate had a very successful year with oil and gas bookings made across PDO's concession area. A total of 119 million barrels of oil and 4.5 trillion cubic feet (Tcf) of non-associated gas (NAG) were booked as Commercial Contingent Resource (cCR) volumes in 2018. The unit finding cost (UFC) of oil was kept at US\$1.1 per barrel, with an overall UFC of \$0.3/boe – a world-class performance. The unit technical cost of these discoveries was also highly competitive and field development plans are advancing to bring production on stream at the earliest opportunity.

The directorate safely drilled 35 wells and acquired over 8,320 km² of 3D Wide Azimuth (WAZ) seismic data in Block 6. Production from exploration wells was delivered at a daily average rate of 2,600 barrels, with a forecast of increased production from new exploration wells coming on stream in 2019.

Oil Maturation

The 2018 programme focused on opportunities which can support PDO's production target for the coming 10 years and rejuvenate the oil portfolio using the latest seismic data, to mature future drill-worthy segments for sustainability and growth.

Oil bookings for the year were in North Oman in the Shammari reservoir and within the Gharif, Natih and Ara reservoirs in South Oman. Bookings in Rakid South alone exceeded 60 million barrels in 2018, extending the previous success made in Rakid in 2017. Several frontier opportunities were tested without success in 2018, but overall UFCs for oil were highly competitive at approximately \$1.1/b.

Gas Maturation

The focus was on extending success in the Mabrouk area in central Oman and exploring further in the Al Huwaisah area in North Oman, fully utilising the Haima North AB 3D WAZ seismic data acquired and processed by PDO and its contractors.

Contingent resources were booked in the Barik, Miqrat and



Amin reservoirs in Mabrouk North East (NE) and Al Huwaisah South. Gas bookings of 4.5 Tcf, together with 118 million barrels of condensate, were the highest in over 30 years and Mabrouk NE was one of the most globally significant exploration results in 2018. Manal-2 was spudded in December and aims to extend the Miqrat gas potential further west, following on from the play-opening Manal-1 well completed in early 2018.

Geo-solutions Activities

Since February 2016, the Exploration Directorate has operated one 'mega' seismic crew acquiring data for exploration as well as production assets. Extensive 3D WAZ seismic data sets were again acquired during the year in line with the plan. In 2018, the first Ultra-High Productivity (UHP) seismic acquisition survey was completed on time in Greater Nimr, achieving a new record of 38,500 vibration points (VPs) per day. The operation involved over 700 personnel and involved the driving of nearly seven million kilometres without any Lost Time Injuries (LTIs). This innovative technology, developed over three years, will continue to support exploration efforts in the future through better imaging and increased quantities of new data.

The first UHP data set made 2018 a challenging year for seismic data processing. By the end of the year, the team had not only adapted to the UHP technology but has also managed to deliver the first intermediate volume a month ahead of plans. The team also delivered a

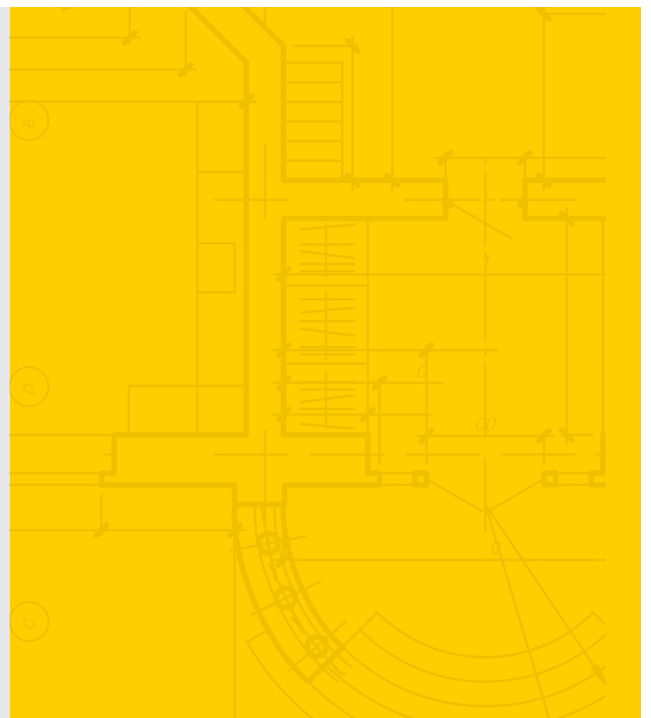




revised processing workflow that is suited for Amplitude Variation with Offset (AVO) inversion in central Oman. This is expected to be a game changer that will enable more AVO inversion projects and enhanced geological predictability.

The Geomatics team maintained its excellent safety performance registering 37 years without an LTI – a record for PDO. In addition, PDO Earth, which enables staff to browse through assets and infrastructure and distil relevant information, has been further developed to support the PDO Journey Management System and to expand spatial data accessibility across the business.

For 2019, the main focus for the Exploration Directorate will be to utilise the new 3D WAz seismic data to strengthen the portfolio of oil opportunities, test new higher risk plays and increase exploration efforts to sustain PDO's growth agenda.



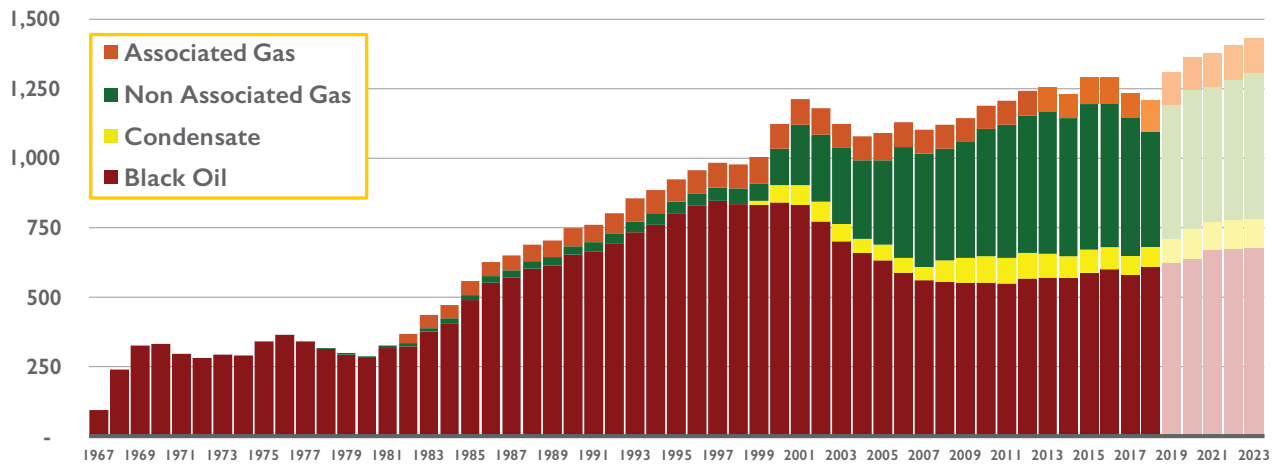
Hydrocarbon Production and Reservoir Management

2018 Highlights

- Combined oil, gas and condensate production of 1.205 million boepd
- Highest oil production since 2005
- Record number of completion and well intervention activities
- Average well costs down by 5% - the lowest in PDO's history
- Gas demand met for all key customers



Production (kboe/d)



Hydrocarbon Production and Reservoir Management aims to optimise production from existing oil and gas fields in such a way that short-term output is maximised without jeopardising production sustainability.

During 2018, PDO successfully continued on its production growth path, despite the current cash-constrained environment. This resulted in a combined daily oil, gas and condensate output of 1.205 million. PDO also celebrated four decades of uninterrupted gas supply, a key enabler to the national development.

The average oil production was 610,170 bpd – the highest since 2005. This was 1,830 bpd lower than planned, mainly due to the impact of Cyclone Mekunu which hit the south of Oman (a 2,300 bpd direct impact). Mekunu's inundation of several production facilities caused latent trips and equipment failures but the impact was minimised by a professional and rapid staff response.

Condensate production (a by-product from gas production) was 65,300 bpd, around 5,000 bpd below target due to a number of challenges including recurring trips and variable performance at Kauther; and delays at Ghafeer and condensate recovery maximisation (CRM) projects.

The average Government daily non-associated gas supply during 2018 was 64.8 million m³/d, lower than the initially targeted level of 67 million m³/d due to lower customer demand, and technical challenges at the Yibal Natih/ Government Gas Plant, variable performance at Kauther, and a Halite scaling issue in Saih Rawl. In 2018, PDO was able

to exceed gas delivery to Oman LNG, contributing to the shipment of seven additional cargoes.

PDO has successfully migrated to being the country's swing producer, requiring us to operate in a highly dynamic mode, frequently compensating for (unplanned) third party production variations.

Well Engineering

Continuing on its cost efficiency journey and despite the increased complexity of the 2018 drilling scope, the Well Engineering Directorate managed to achieve the lowest ever recorded cost per metre drilled in PDO's history (4% lower than 2017). At the same time, it also managed to be more efficient in terms of drilling time per metre with 5% improvement compared to the previous year.

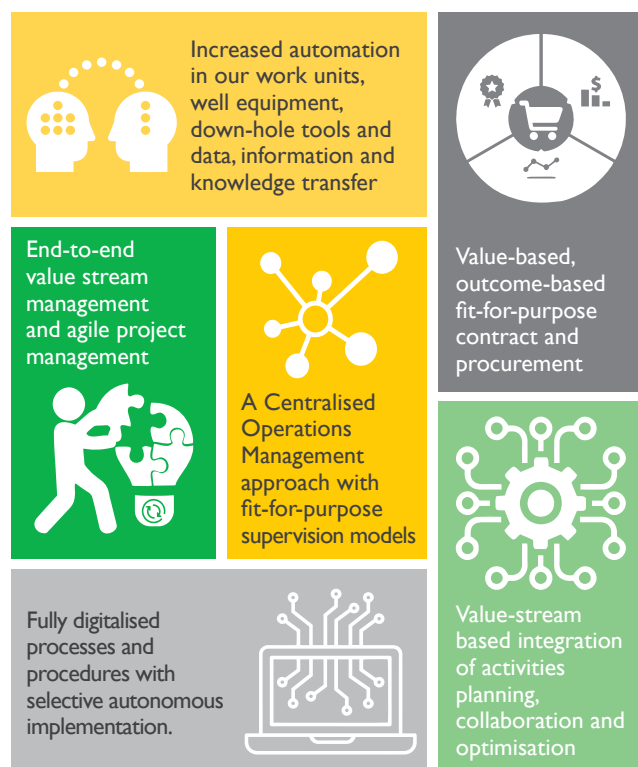
Well delivery was impacted by the Mekunu and Luban cyclones, as the directorate was forced to suspend operations on the majority of its southern units to ensure the safety of people and assets. However, the impact was minimised through collaborative recovery efforts which enabled a smooth restart of operations and the delivery 600 new wells. This was supported by a very efficient operational approach with a new drilling Non-Productive Time (NPT) record of 7.5%, compared to the previous best of 9.5% in 2016.

By the end of 2018, the directorate had completed 22,400 completion and well intervention (CWI) activities – the highest number recorded with the same number of resources. The number of hoist activities was maintained despite allocation of some of the resources to abandonment activities. NPT for well and reservoir management was maintained at 7%, and fell to 2.4% for CWI, a record.

The directorate also completed 97 days without a Lost Time Injury, beating the previous best of 94 days, achieved in 2017. Moreover, 70% of PDO wells are now top quartile, with 46% being best in class.

Another major milestone was the completion of the “Wells in the 20s” strategy with our 2030 aspiration “to safely deliver our wells at half the current end-to-end delivery time and lifecycle cost”, with increased focus on Continuous Improvement, agility and digitalisation. New five-year goals were set and a reference plan was developed for the comprehensive strategy, which covers the operating philosophy that will see us through the next decade.

Key features of the strategy are:



Enhanced Oil Recovery (EOR)

PDO's journey in growing the future EOR contribution to oil production continued in 2018 with the completion of another critical chemical trial in the Marmul asset. It is anticipated that by 2025 more than 23% of PDO's production will come from EOR projects. PDO is currently operating a range of commercial-scale EOR projects including chemical EOR, miscible gas injection (MGI) and thermal applications.

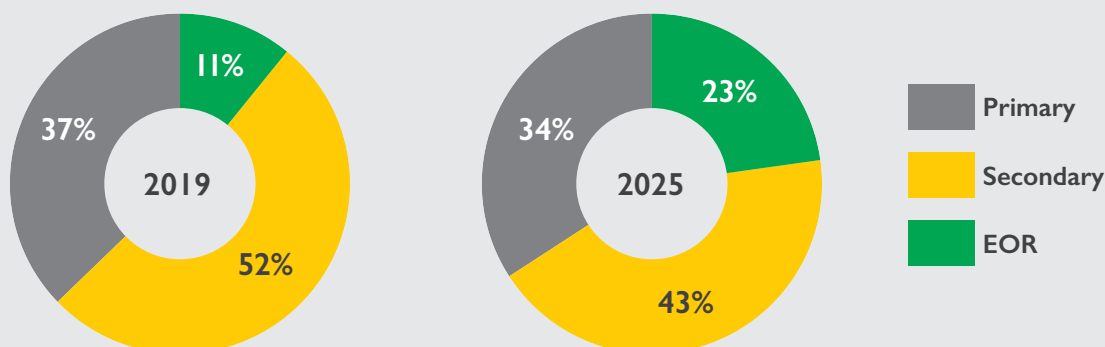
Full Field Developments Under EOR Processes

The Marmul Polymer phase 1 and phase 2 projects were commissioned in 2010 and 2015 respectively with a total oil contribution of 17.7 million barrels of oil to date. The average combined production gain from both phases in 2018 was 6,500 bpd, an increase of 13%. Work is continuing on the third phase to further improve on execution readiness. The project will develop 61 million barrels of incremental oil, with first oil by Q1 2023.

Gas injection in the Birba field has been ongoing for the past 24 years, and has yielded an additional 45.7 million barrels of oil with a total field recovery factor of 21%. To-date, 5.95 billion cubic metres of gas have been injected and we are on target to achieve up to a 50% recovery from infill horizontal drilling and additional gas injection.

The Harweel 2AB project (Zalzala field) started miscible gas injection (MGI) in earnest in April 2014 at a constrained rate of up to 1.7 million cubic metres per day and ramped up to a full-capacity injection rate of up to 4.5 million m³/d since January 2015 after separator replacements. To date, 3.81 billion m³ of gas have been injected. A clear response to the MGI process has been established in terms of incremental oil rates (incremental oil to date of around 14.1 million barrels (2.24 million m³), and target pressures above the minimum miscibility pressure across the field. The expected total recovery with MGI is about 50%.

EOR contribution to PDO oil production by 2025





Injection in Sakhiya field as part of the Sakhiya mini-flood project has continued since mid-2015 with high injectivity of up to 2.1 million m³/d from three injectors. To date, 1.47 billion m³ of gas have been injected and a positive reservoir pressure response has been observed as the depletion rate slows down.

The thermal gas-oil-gravity-drainage (T-GOGD) process in Qarn-Alam has been underway since late 2011. Up to 2018, 266 million tonnes of steam were injected into the Shuaiba oil-bearing formation, producing 83 million barrels of oil and resulting in a steam-to-oil ratio of approximately three. Project record levels of steam injection were achieved with peak rates exceeding 17,000 tonnes per day.

The Amal steam project continues to improve in all areas, and the year-average oil production for 2018 was 10,611 bpd. There was a continued strong steam injection performance with 2018 representing the highest annual average injection rate of around 7,854 tonnes per day.

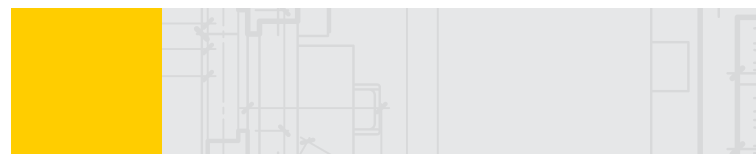
There was improved availability of heat recovery steam generators in Amal West and more once-through steam generators in Amal East, and a thermal response has now been demonstrated in both fields. Reservoir performance continues to improve with good cold and thermal performance. So far, 231 wells have been drilled in the Amal West 3.3 acre infill project.

Field Trials and EOR Research

Concurrently, PDO is continuing to identify novel EOR

technologies that have the potential to unlock difficult hydrocarbon resources and further reduce the technical costs of these developments. This is being done through a series of dedicated laboratory and field testing programmes in collaboration with local and international institutions. Considerable focus has been placed on ensuring that PDO identifies technologies that will unlock the large difficult hydrocarbon resource base within Block 6. As an output from these alliances, technologies such as foam and low tension gas have been tested in the laboratory and have shown positive results.

Other research initiatives target cost optimisation of our current and future EOR developments. Work is ongoing to expand surfactant polymer application for more viscous oil that, if successful, will allow for additional volumes to be matured. Currently, a focused effort on cost optimisation of the next phase of chemical floods is ongoing – polymer and alkaline surfactant polymer – to allow for robust technical and development costs in view of the high price volatility environment. In addition, 2018 ended with the positive conclusion of the Haima West trial where polymer was injected in a lower quality reservoir extending the boundaries of polymer application.



Operations Excellence



2018 Highlights

- A 77% fall in Tier 1 process safety incidents and a 50% drop in Tier 2 incidents – both the lowest since 2010
- Official launch and expansion of Ihtimam in-house, behaviour-based safety system
- US\$152 million cost savings through Lean business efficiency
- Over US\$700 million cost avoidance identified as part of Knowledge Management programme

Operations excellence (OE) essentially refers to the top-class running, maintenance and upkeep of all PDO's surface facilities. Keeping the pumps and compressors working, the processing plants running and the oil and gas flowing safely through pipelines allows the Company to meet its production targets and reduce the cost of its operations.

Process Safety and Asset Integrity

We remain committed to making continuous improvements in Asset Integrity and Process Safety Management (AI-PSM) via the enhanced knowledge of staff and contractors, latest tools, technologies and expertise.

In recent years, we embarked on a number of improvement initiatives which are already yielding tangible results as is testified by significant falls in the number of Tier 1 and Tier 2 process safety incidents. In 2018, there were three Tier 1 incidents (down from 13 last year – a 77% improvement) and 32 Tier 2 incidents (a 50% improvement), both the lowest since 2010.

Non-compliance to established rules and procedures has historically been a major contributing factor to incidents. To address this issue, a step change programme was initiated whereby the Technical Director's Group, using the goal deployment approach, ensured that corporate targets were

clearly conveyed to the Operations, Engineering, and Wells functions and further cascaded to the asset teams. All the teams came up with SMART (specific, measurable, attainable, realistic/relevant and time-bound) strategic action plans in their areas to address issues related to non-compliance. This method also laid the ground for achieving a common purpose, alignment and robust assurance mechanisms between the Operations, Surface Engineering and Wells work streams.

To further improve the compliance culture, the chosen theme for the fifth annual Process Safety Day – where over 4,000 PDO staff and thousands more contractors participated in more than 100 engagement sessions organised by team leads both at Coast and Interior locations – was "We comply because we care. Violations are not an option".

As a part of the management commitment to raise the profile of AI-PSM, the half-yearly Managing Director's Committee (MDC) "Deep Dive" workshops continued, giving MDC members an opportunity to directly hear about the issues from front line staff. This was also augmented by the quarterly Gemba Walks and Letters of Assurance (LOAs) reviewing actions. An AI-PSM steering committee was also formed comprising the three functional directors, relevant managers and focal points and this meets every month to ensure alignment and identify opportunities for collaboration and improvement.





This year, we also launched the 10 Process Safety Fundamentals with the aim of providing renewed focus on existing, good operating practices. These fundamentals are similar to the “Life Saving Rules”, but with a specific focused on process safety, and guide daily actions to prevent incidents.

The third version of the Asset Integrity Portal, which brings together risk indicators from disparate systems to give a clearer view of any integrity issues, went live with 27 key performance indicators (KPIs). Standard operating procedures (SOPs) have been developed and plans for the next release are underway.

Learning From Incidents

To improve learning from incidents, the AI-PSM Incident Databook, which catalogues all incidents and near misses, continued to be populated and is now being increasingly used across the organisation, especially by engineering teams, to incorporate learnings into new projects. Quarterly fishbowl sessions to discuss common reasons for incidents were held at all Interior locations.

Very good progress was achieved on the AI-PSM training front, with more than 8,000 PDO staff and contractors registering for the learning programme through an online training portal. AI-PSM assurance activities this year included an internal Level-2 cross-directorate audits at five assets and hardware barrier assessments (HBAs) at four assets.

With the aim of retaining critical knowledge and providing a platform for knowledge sharing and cross learning within PDO, the AI-PSM Learning Knowledge Base (LKB) system was

developed and populated with learning from 120 Incidents, 40 HBAs and 27 Level - 2 PSM Audits. A new Community of Practice for AI-PSM has also been established, and the online collaborative tool went live. The focus in 2019 will be to mature the LKB and operationalise its use.

Simplification was a key focus area in 2018. A complete review of our AI-PSM and Maintenance Management System documentation was performed to unify and simplify our procedures and processes, facilitating compliance for our staff and contractors. The permit to work (PTW) process was also simplified and is now implemented across all assets with the exception of the Greater Birba cluster, as it is a high sour facility.

In 2019, extensive efforts will be made on asset register verification with a target to fix piping and relief valve issues across all assets.

Maintenance Integrity Execution

We maintained our efforts to sustain the Maintenance Execution (ME) and Integrity Assurance (AI) programme in 2018. All 13 of our assets have retained their calculative status and are now making significant strides towards achieving the “proactive” ME status.

Operations Excellence Dashboard

The Operations Excellence dashboard is a near real-time, single-point operations data information that enables Operations staff to make faster, more informed decisions. In 2018, a total of 11 elements of the dashboard became active. The annual planning and budgeting business processes



were revamped through Lean methods, and the data from the dashboard is being used to better understand, manage and challenge operational expenditure.

Operational Reliability

The Integrated Operations Centre project, which centralises ownership of operational issues and enhances visibility of optimisation opportunities across the PDO network, is a step towards achieving our aspiration to become a High Reliability Organisation (HRO) and to take our equipment reliability and availability to world-class levels.

There was a significant reduction in alarm rates at all assets. Integrity Operating Windows have been established for critical assets and exception-based surveillance has started to review process parameter deviations.

Notwithstanding the significant improvements made, we remain mindful of how far we are from achieving Goal Zero where all our facilities operate with no leaks or incidents causing undesirable consequences and our focus will continue to persistently close the gaps. Staying the course on this journey and continue to improve are key to achieving the Goal Zero target. The AI-PSM improvement action plan has been communicated to all stakeholders. Eventually, the risk should become As Low as Reasonably Practical (ALARP) when AI-PSM has been fully embedded in PDO by 2020.

Operational Safety

Front Line Safety (FLS) Leadership

As we continue to promote safe behaviour in the workplace

and increase the safety leadership skills of front line supervisors through Front Line Safety (FLS), we also have redefined the strategic objectives and plan of the FLS programme to suit growing business needs and continuously improve our safety culture.

Phase I of the programme was translated into Arabic to cater for staff on in-sourcing hoists, particularly drillers and assistant drillers. It was also extended to other drilling contractors, such as Midwesco, Al Baraka, BaOmar, Cactus, and small fields such as Petrogas and Medco. Along with engaging senior leadership teams at these contractors, we have also ensured a commitment that they will monitor and close their personal action plans. Moreover, Phase I was extended to include the Central Project Delivery organisation for the Yibal Khuff project, where over 150 supervisors have been trained and 19 certified as FLS Leaders.

The third phase of the FLS Academy in Well Engineering, called The Front Line Management (FLM), was designed and developed.

It provides well engineers with a standard template and the skills to coach their teams and build their understanding and compliance with safety leadership responsibilities.

“Staying the course on this journey and continue to improve are key to achieving the Goal Zero target.”

More than 1,300 well engineering front line supervisors, including drilling contractors, have now been trained. In the future, we envision FLS to be rolled out to all PDO staff and contractors, and we aspire to get it certified by an external accreditation institution.

Ihtimam

Our in-house, behaviour-based safety system Ihtimam (I care), which is task and risk-specific and allows for a more focused approach to observation and intervention, was expanded to cover 23 rigs and hoists in 14 locations in PDO and some of our contractors.

PDO has already trained more than 3,500 PDO and contractor employees on the programme during trials and some companies have already recorded dramatic improvements in safety performance.

Sustainability reviews conducted for over 700 PDO and contractor staff have yielded promising results with 100% of the participants stating they prefer Ihtimam to other systems, as they have noticed an improvement in communication, safety leadership and their safety culture.

Ihtimam is now our official behaviour-based safety system, with plans to begin implementation at our main office in the Coast and expanding to six more contractors by the end of 2019.

Hazard Hunting

The Corporate Health, Safety and Environmental (HSE) team launched a revitalised Hazard Hunt programme at all PDO worksites, as part of a “back to basics” approach. The Hazard

Hunt was triggered in 2016 after the inability to correctly identify hazards at the workplace was identified as a common key finding from incidents, inspections, and audits.

Through walkabouts, observations and hands-on guidance, HSE specialists accompany workers who are asked to participate and spot hazards, identify risks and unsafe acts or conditions in their own workplace. Each of their findings is then photographed and discussed with the relevant personnel with a focus on potential dangers and the best measures to prevent or mitigate them.

Since 2016, Hazard Hunts have been conducted at more than 50 sites (including yards, workshops, production stations, projects, on/off plots, etc.) and involved 200 HSE advisers/ front line supervisors engaging with more than 1,200 staff.

Due to positive feedback from site personnel and for sustainability purposes, PDO and its contractors are mandated to continue with the Hazard Hunt programme by embedding it in all activities across the business.

Lean Business Efficiency

In 2018, we further expanded our Continuous Improvement (CI) programme with the aim of reinforcing it to develop PDO into a recognised world-class CI organisation. This was enabled by building more in-house capabilities.

A long-term transformation map has been developed detailing the journey for the Company to become a CI leader. As such, one of the priorities for 2018 was to take stock of all the best practices achieved across the Company and work on identifying a



single standard for the rest. More than 12 strategic standardisation projects were executed using in-house capabilities to build a stronger foundation for the next stages of CI transformation, including a world-class assurance system which helps teams plan and progress their CI maturity.

Further focus was devoted to the Lean leadership aspect to respond to anticipated challenges in sustaining improvements. This resulted in upgrading the training and coaching programme for Lean to become state-of-the-art, and more than 80 managers have already undergone the new training. Additionally, and to further embed CI ways of working, all MDC members subscribed to an extensive CI coaching programme fully supported by our in-house coaching capability.

An additional 112 staff completed the extensive Lean Practitioner (LP) training programme raising the total of certified LPs to 400. This supported the delivery of 142 efficiency improvement projects, securing US\$152 million in cost savings. So far, more than 15,700 ideas have been generated from across the Company and more than 6,000 have been implemented.

Additional to the Lean Practitioner programme, PDO also initiated a large-scale training programme to build organisation-wide leadership capability in structured and complex problem solving, as well as team improvement coaching.

We have continued spreading Lean awareness and knowledge as part of our commitment to support the sustainable development of the nation. In 2018, we organised Lean awareness sessions for over 800 representatives from more than 50 public and private organisations in Oman. We also hosted more than 138 leaders from over 12 public bodies including the Ministry of Manpower, The Research Council, and the Oman Gas Company to learn more about the programme.

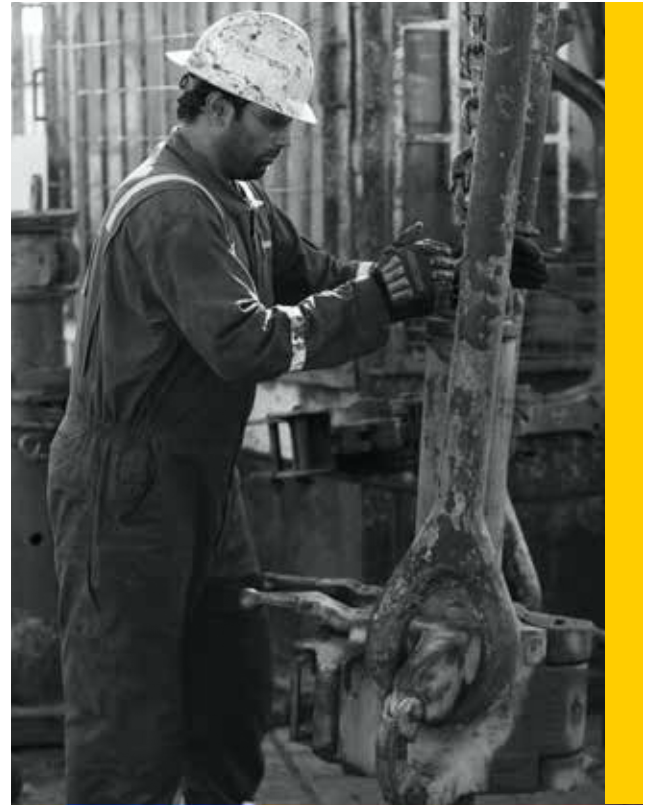
Knowledge Management

Knowledge Management (KM) has grown successfully in PDO to become recognised as a key business enabler.

The PDO Knowledge Management programme began in 2014 to facilitate the better identification, capture, sharing and application of our collective knowledge, learning, insights and expertise to help support projects, operational performance, process and health and safety, alongside continuous improvement.

Following stakeholder endorsement, we adopted a best practice approach to KM and three initial pilots (Lessons Learned, On-boarding and Communities) were launched in Projects Delivery. We then expanded into Well Engineering and AI-PSM where learnings have helped with improvements in wells assurance and operations and process safety incident management. We are in the process of extending KM to another five directorates.

One of our key success factors is the development of a strategic KM Framework, which included the key components of People and Expertise, Collaboration, Learning and Content.



Some of our key achievements to date include:



Project Delivery

2018 Highlights

- SNDC2/KDC2 came on stream well ahead of schedule
- Tayseer EDF, Ghafeer A2C Field Development, and Mabrouk Deep Phase 3 projects were brought on stream
- Continued good progress on both Rabab Harweel and Yibal Khuff “mega” projects
- Re-organisation of Engineering and Project Delivery to centralise the execution of all projects, enabling higher productivity, faster decision making and project delivery cycles.



Successful project delivery – in its widest sense – is simply constructing and commissioning facilities on time, within budget and delivering the products as promised. In the short term, the Company is focused on producing oil and gas in as cost-efficient way as possible from its existing fields, according to existing development plans. But, in the longer term, good project delivery becomes even more important as the Company brings on stream more complex sour and enhanced oil recovery projects, which require steam or chemicals to produce the oil.

PDO continued with its endeavour to improve capital efficiency and deliver competitive projects. An engineering re-organisation, aimed to centralise the execution of all projects, enabling higher productivity, faster decision making and project delivery cycles, was completed achieving its “go-live” target of January 2019. The new central Project Delivery organisation will bring greater consistency and efficiency to a broad sweep of project delivery activities, and will aim to:

- Adopt a standardised approach to engineering projects
- Move towards top quartile project delivery (schedule/cost)
- Create further development opportunities for technical engineering disciplines

- Share best practices and lessons learnt at scale
- Ensure small projects are executed
- Enhance interfaces between Operations and Engineering
- Do more with the same as people efficiency improves.

The Tayseer Early Development Facility (EDF) which set a project delivery record after being successfully commissioned in just 23 months, as opposed to standard project delivery schedules which are 3-5 times longer, was brought on stream in November 2018.

The EDF development will allow for the maturation of 7-8.5 million barrels of condensate and sweet gas export of 2.1-3.2 billion m³ (resulting in volumes of 20 – 30 million barrels of oil equivalent).

The second phases of the Saih Nihayda (SNDC-2) and Kauther (KDC-2) depletion compression projects came on stream safely in June 2018, months ahead of schedule. Their scope involved the installation of two gas compressors each with a capacity of 17 megawatts (MW), and downstream of the existing inlet SNDC-1/KDC-1 separators, with associated inlet coolers, scrubbers and discharge.

They aim to enhance gas production from wells at Saih Nihayda, Kauther and Fakhr fields by reducing the flowing tubing pressure, while maintaining the required inlet pressure to SNDC-1 and KDC-1 compressors.





The projects were finished with minimal pre-start-up audit (PSUA) findings and no Lost Time Injury (LTI) incidents, with around 7.5 million manhours worked and more than 4.3 million kilometres driven without a road traffic accident.

At the same time, Amal Steam Phase 1C came on stream to cater for the needs of the Amal West and East steam developments. The scope comprised the expansion of the steam generation capacity by an additional 6,000 tonnes per day, expansion of the water treatment plant's capacity by an additional 6,850 m³/d and an enhancement of the production station to handle 24,000 m³ of oil per day.

There was good progress on PDO's two mega projects. The Rabab Harweel integrated project (RHIP) represents the largest reserve addition (more than 500 million barrels of oil equivalent) and capital project in PDO history. It integrates sour miscible gas injection (MGI) in multiple oil reservoirs with production and pressure maintenance of a government gas condensate field which also contributes to Oman's overall gas demand. The PSUA of utility systems was completed, and the project is on track to come on stream by mid-2019.

As part of our efforts to increase Omanisation of high-demand positions in the oil and gas sector, graduates from the PDO-funded Omani 6G certified welder programme were assigned to RHIP on- and off-plot contractors and at Yibal Khuff (YK), which achieved a key milestone with the delivery of an export compressor to the construction site and remains on track to be brought on stream by 2021.

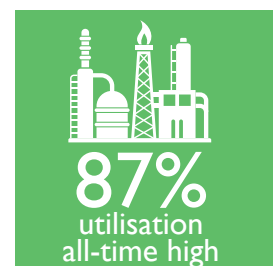
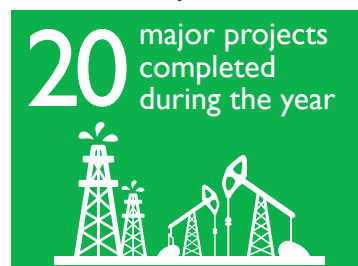
The Ghafeer A2C project was brought on stream in

September 2018, paving the way for the ultimate recovery of 6 billion m³ of non-associated gas and production of approximately 3.9 million m³ of discounted incremental condensate from the Ghafeer fields.

The third phase of Mabrouk Deep also began operating in December 2018. The facility is designed to handle 8 million m³ of gas along with the associated condensate and water, and has the capacity to handle 20 producers.

Our in-house Front End Engineering Design (FEED) Office is making strides in its journey to become an Engineering Design Centre of Excellence.

Some of its key achievements in 2018 were:





Skills continue to be Omanised and more than 200 engineers are receiving accelerated training, coaching and development in all engineering disciplines through the Graduate Development Programme.

PDO's continuing AI-PSM improvement journey has focused on engineering and project delivery and, in 2018, dedicated teams have been working on asset integrity and process safety in the delivery of engineering projects, addressing AI-

PSM competencies elements, rolling out trainings for specific disciplines, enforcing AI-PSM assurance for engineering and construction deliverables and improving incident investigation and learning from incidents.

In the terms of Lean, the Project Delivery value stream has identified more than 30 potential opportunities for improvement in 2019 and beyond.

Further reducing the average charge rate to
US\$69
– a 2% reduction compared to 2017

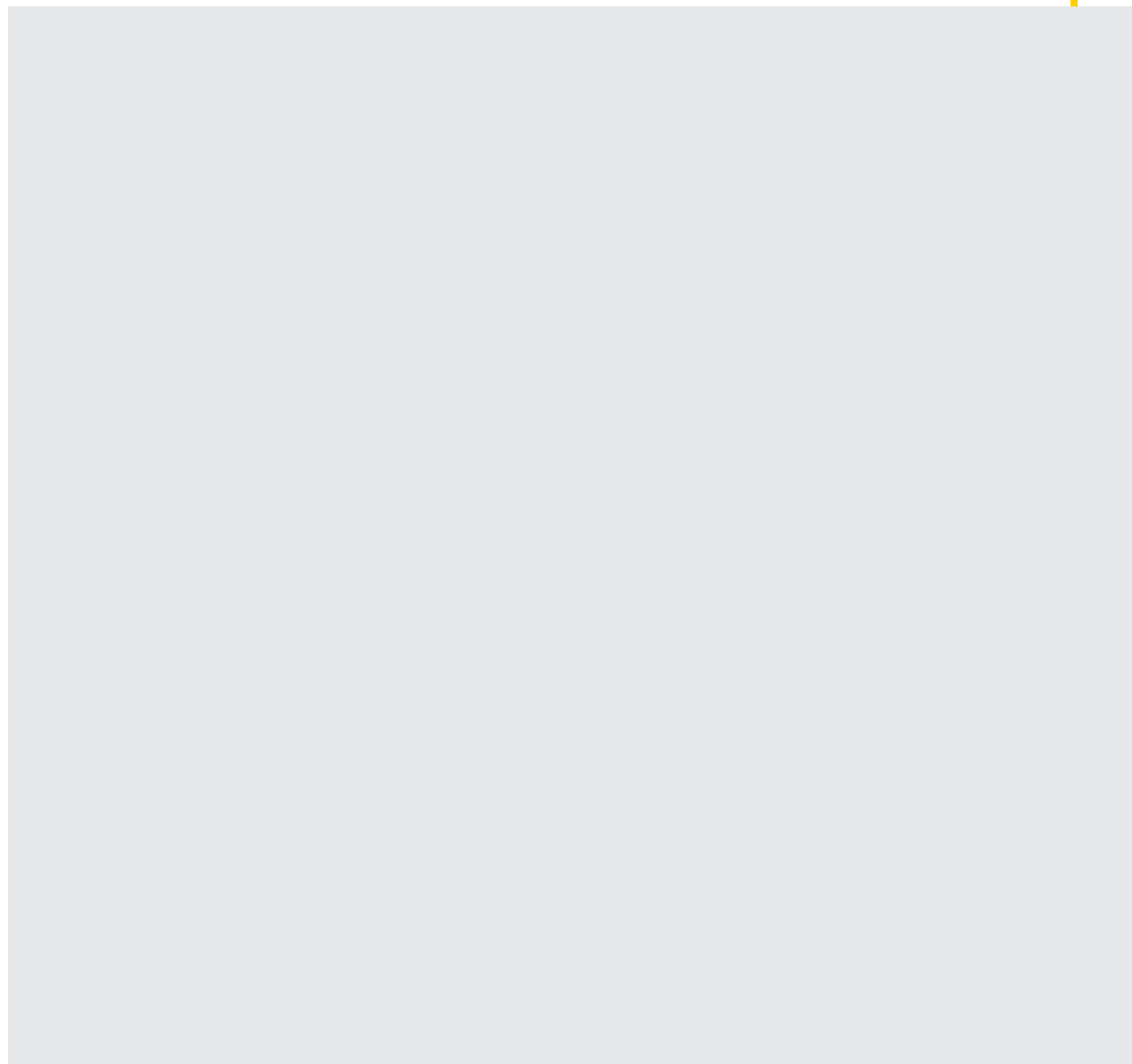


Establishing and developing a procurement department specifically to support PDO projects delivered in the FEED Office



Developing a number of IT systems to improve productivity and reduce manhour requirements

In-Country Value



2018 Highlights

- Created more than 17,000 employment-related opportunities in the oil and gas sector and beyond
- Contracts worth US\$3.7 billion awarded to nationally registered firms
- Sponsored a technical support initiative programme for 300 entrepreneurs in co-operation with Riyada
- Total Value of SLCC and LCC turnover: US\$393 million
- Total spend on SMEs: US\$329 million – a 41.2% increase on 2017

PDO's In-Country Value (ICV) strategy aims at supporting local community companies and small and medium-sized enterprises (SMEs), increasing the procurement of local goods and services, and improving the capacity and capability of Omani people and companies in order to secure long-term sustainable commercial benefits for the Sultanate.

Jobs and Training

PDO continued to support His Majesty's Government call to create jobs for young Omanis. In order to help boost Omani employment and economic diversification, we delivered a record 17,027 job, training, re-deployment, transfer and scholarship opportunities with our contracting community, exceeding our target. This included more than 9,000 direct hires and almost 3,600 students in training-for-employment schemes, and brings the total of opportunities which have been created since 2011 when the National Objectives programme was launched to more than 55,000.

These opportunities are aimed at young Omani jobseekers so they can take up skilled employment in a range of jobs such as electricians, mechanics, pipe fitters, scaffolders, maintenance men, steel fixers, sheet metal workers, fabricators, lifting operators, warehouse staff, cooks, receptionists, waiters, kindergarten teachers, cabin crew and cashiers. We are also

supporting the training of 450 young women to work in the clothing industry.

PDO celebrated the graduation of 2,457 young Omanis from its training for employment programmes including 360 trainees to work in the aviation sector, 600 female kindergarten teachers.

The graduates underwent training lasting up to 6-18 months at a variety of training institutes and will now take up work employment with more than 150 different employers.

A total of 150 more Omanis are undergoing training to work as key commissioning staff in the oil and gas sector. Upon passing the course, the recruits will gain an internationally recognised oil and gas Offshore Petroleum Industry Training Organisation (OPITO) or Edexcel certificate, and take up full-time employment with Kentz (or other oil and gas companies in or outside Oman), which is a wholly owned subsidiary of SNC-Lavalin, one of the world's leading engineering and construction groups.

Goods and Services

PDO has stayed the course with its commitment to retain more of the wealth of the oil and gas industry in Oman and has managed to retain a value in country of 44% in 2018. We awarded contracts worth US\$3.7 billion to nationally registered firms. These agreements included:



- **The provision of liner hanger equipment and associated installation services**

The seven-year agreement was signed with Schlumberger Oman & Co. to supply equipment and associated installation services through its facility in Nizwa, which will reduce both costs and delivery times.

PDO has traditionally imported liner hanger equipment but wanted to boost ICV by increasing the use of local products and services as well as by improving the capability of Omani nationals and companies to manufacture and supply key items. The first made-in-Oman thermal hanger has already been run successfully.

- **A DBOOM contract**

A 10-year Design-Build-Operate-Own-Maintain (DBOOM) contract has been awarded to M/s Enerflex Middle East LLC for the Sadad North Early Development Facility (EDF).

The leased facility will be designed for 24-hour manned operation, and a control room will be provided locally to facilitate the operation and control of the facility. The contract aims to reach an Omanisation rate of 80% for the Operate and Maintain phase, to be achieved within two years of the on-stream date which is set for November 2019.

- **A cementing services contract**

This was awarded to Abraj Energy Services to perform cementing services that include the provision of cement and additive materials in addition to equipment.

The agreement addresses 27% of the pan-PDO cementing

scope including all development wells in the North region except foam cementation in Fahud, Qarn Alam steam and some Qarn Alam fields.

As part of our efforts to maximise ICV, all cementing services have been restricted to local companies.

- **Supply of oil-based and water-based mud**

PDO struck a deal with Halliburton Worldwide LLC for the supply of oil-based and water-based mud for the North for a period of 10 years. The contract includes the construction of mud plants in Qarn Alam on a plot of PDO land and all construction materials will be sourced locally. The plants will create about 50 Omani jobs and provide a number of training and internship opportunities to young Omanis.

Supporting Omani Businesses

PDO has played a critical role in the establishment of Omani factories, workshops and repair facilities offering in-country engineering services, equipment and materials to the oil and gas sector.

PDO continues to lead 38 of the 53 opportunities outlined in the ICV Strategy Blueprint on behalf of the oil and gas sector, two of which were delivered in 2018. We have also stepped up our efforts to develop Omani skills and capabilities with the Omanisation of our entire hoist fleet for the first time in our history, after signing 10-year deals with five local companies worth more than US\$800 million. The agreements mean that PDO has now completed 24 of the 53 ICV opportunities.

The Gulf Starch Plant, Oman's first and only manufacturer of drilling starch, was opened in 2018. The US\$13.5 million facility, which also has a quality-controlled on-site laboratory, will provide the vital chemical for PDO's drilling operations.

It currently employs 20 Omani production technicians who graduated from our National Objectives programme. A further 20 are also expected to join and the long term plan is to be eventually 100% Omanised. The fully automated complex can manufacture 10,000 tonnes of starch a year and has the potential to serve all operating and drilling companies in Oman and the region.

Ahead of the fifth anniversary of the ICV Strategy Blueprint, the country's second artificial lift systems assembly and repair plant (by Baker Hughes GE) was opened in Nizwa. The facility will support PDO's operations and other customers in the region, with the aim of optimising production and saving costs.

We also supported the establishment of a number of workshops which provide and deliver new services in the country including the repair of rotating equipment, valve automation and rigs and hoist maintenance.

Another project where maximising ICV is a priority is the Ras Al Hamra development project (RAHDP) which has seen all contracts being awarded to local contractors and consultants, including SMEs for all minor services. Moreover, the majority of the raw materials used in the project are procured locally and continuous efforts are made to involve more SMEs. In 2018, a contract for the construction of 212 residential units as part of the third phase of the project was awarded to Al Tasnim Enterprises LLC.

The project, which will be completed by 2022, features stunning residential and leisure facilities for employees and their families.

RAHDP In Numbers

Phase I:
272
new residential
units constructed

Phase 2A & 2B:
197
units under
construction

Phase 2C:
80
units under
construction

Phase 3:
212
units to be
constructed



In addition, we have endeavoured to share our ICV experience and are currently collaborating with different ministries to share our best practices and assess the feasibility of replicating our ICV model across Omani industries. These include the Ministry of Commerce and Industry, the Ministry of Tourism, the Ministry of Defence and the Ministry of Health.

Small and Medium Enterprises

PDO increased its spend on small and medium enterprises (SMEs) in 2018 to US\$329 million – a 41.2% increase on 2017.

In support of the Government's quest to encourage SMEs, PDO also supported the allocation of work opportunities for 16 SMEs in areas including HSE, ICV assurance and auditing, the RAHDP, and waste management.

In partnership with SparkLabs and Phaze Ventures, the New Business Development team incubated the first cohort of Omani entrepreneurs working in disruptive technologies at the Knowledge Oasis in Muscat. The programme offers start-ups funding, co-working space and mentorship to help grow their businesses, and develop cutting-edge products and services for the energy sector.

In addition, to further nurture entrepreneurial performance in the Sultanate, PDO launched the second wave of its Ta'zeez (Enhance) training to boost the capabilities of Omani SMEs in key business areas such as HSE, financial management, business ethics, PDO's tendering process and vendor registration. In 2018, it focused on around 20 SMEs specialising in oil and gas engineering, an area where PDO is looking to localise more of its contracts. It also organised workshops for 44 SMEs in well services aimed at empowering and enhancing their capabilities in doing business with PDO and improving their entrepreneurship skills.

PDO sponsored a technical support initiative programme for 300 entrepreneurs in co-operation with Riyada (the Public Authority for Small and Medium Enterprises Development). The programme aims to enhance the competitiveness of existing businesses and the capabilities of entrepreneurs to develop their projects on a sustainable basis.

Community Development

Local Community Contractors (LCCs)

PDO continued to support LCCs in 2018, a year marking the 20th anniversary of our LCC initiative. This support is provided through a ring-fenced scope in our main contracts, which is offered to them via an inter-bidding process. A total of 410 LCCs had registered in the Joint Supplier Registration System (JSRS) up to the end of 2018, with 128 new LCCs registering last year alone.

These LCCs are providing various services in oil and gas operations, such as civil engineering, equipment hiring, mechanical, electrical, manpower supply and logistics. There are also 14 LCCs which have direct contracts with PDO and are considered as matured LCCs.

PDO conducted two LCC business awareness workshops in the concession area, focusing on different topics essential for their business such as HSE, lifting awareness, the inter-bidding process, contract management and the benefits of registering on the JSRS.

Super Local Community Contractors (SLCCs)

PDO has continued to support the development of Super Local Community Contractors (SLCCs). These companies are registered as closed Omani shareholding companies, and are owned by more than 9,700 shareholders who reside in our concession area. SLCCs provide a range of core oil and gas activities, including hoist operations, well intervention, pipeline maintenance, drill water services and flowline replacement.

Throughout 2018, SLCCs delivered shareholder benefits and generated employment and entrepreneurship opportunities for locals. All four SLCCs working under PDO – Al Baraka Oilfield Services, Al Haditha Petroleum Services, Al Sahari Oil Services and Al Shawamikh Oil Services – are progressing well with a strong focus on business growth, diversity and efficiency.

With the aim of encouraging these companies to sustain

their business growth, PDO organised the annual SLCCs Board Members Sustainability Workshop which shed light on corporate governance and investment opportunities in different sectors including oil and gas, tourism, manufacturing, mining and logistics. These opportunities were presented by officials from the National Programme for Enhancing Economic Diversification (Tanfeedh) and other private and governmental organisations.

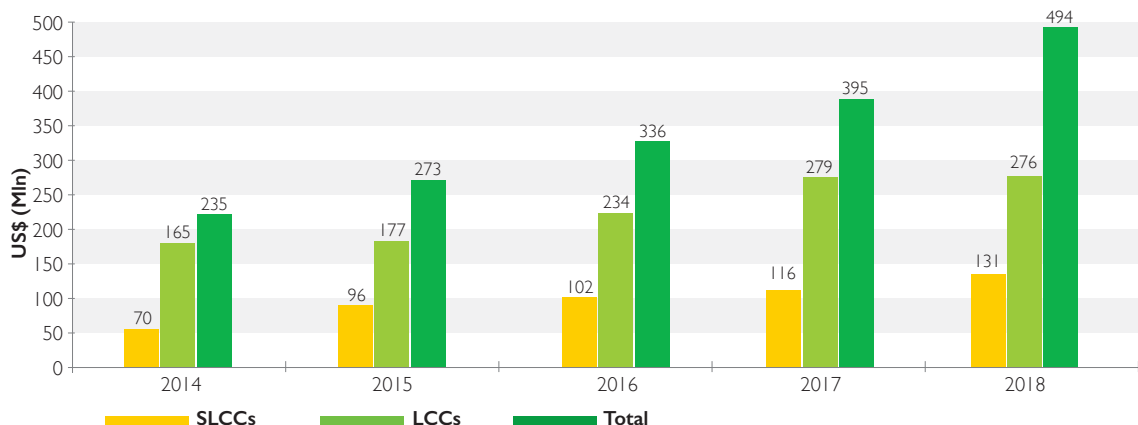
Moreover, PDO organised an awareness workshop for SLCCs shareholders in Nimr and Nizwa with the objective of educating shareholders on their roles, responsibilities and rights including how to elect suitable Board of Directors' members. New board members were then elected in March 2018 to support the growth of their respective SLCCs.

2018 Full Year SLCCs/LCCs Spend (Revenues)

The cumulative total contract value awarded for work to all four SLCCs has exceeded US\$1.1 billion. In 2018, the total cumulative revenue from PDO contracts for SLCCs was more than US\$131 million, the LCC spend (revenues) was around US\$186 million and matured LCC spend was about US\$176 million. The total SLCC/LCC turnover for the year was US\$494 million - a 25% increase on 2017.

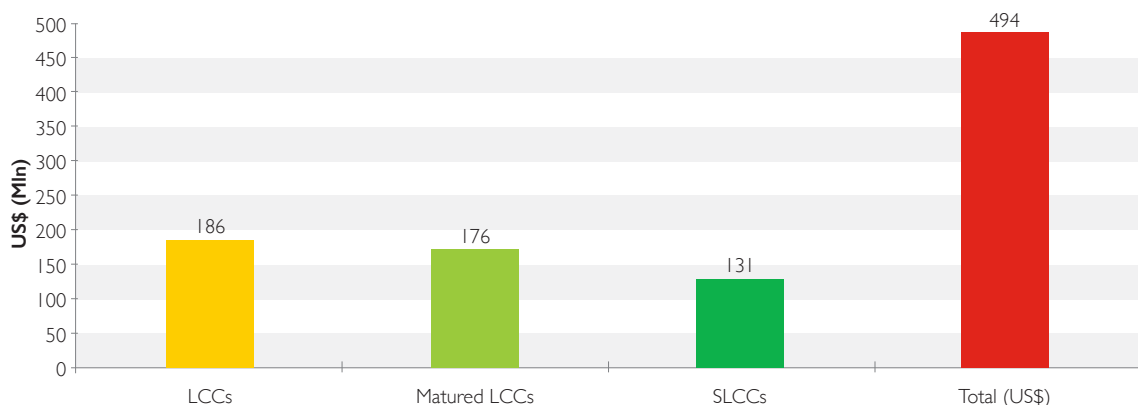
The following chart illustrates the SLCCs/LCCs revenue growth over the last five years:

SLCCS/LCCS SPEND GROWTH



The following chart illustrates the SLCCs, Matured LCCs and LCCs revenues in 2018:

2017 FULL YEAR SPEND



More than 4,400 Omanis are currently working with SLCCs and LCCs in different disciplines.



Community Services

To meet the essential needs of stakeholders in rural areas, PDO continues to deliver water to houses and camel troughs (Izbas) of local communities. The Company delivers more than 400,000 m³ of water annually to more than 1,785 beneficiaries in various locations.

It has also successfully trialled the use of solar energy to operate a community water well at Awifiya, Bahla (see Environmental Sustainability and New Technology chapter) with the intention of expanding the project to include other water wells in the future.

Road safety remains a top priority. As such, the Company grades and re-sheets around 4,000 km of roads annually for safer commuting for contractors and citizens within its concession area.

On the education front, the team has built upon the existing Community Scholarship Programme to sponsor 165 general diploma graduates annually from the concession area to continue their higher education. In addition, the team is sponsoring 50 students annually for the Tawteen programme, run in collaboration with the Ministry of Education and Ministry of Higher Education, so they can work as teachers in their own communities.

Contracting and Procurement

PDO's contracting and procurement vision is to become the partner of choice for delivering our business targets. Our 2019 programme build indicates an annual spend on oil and gas in excess of US\$6 billion, of which more than 80% is through third parties.

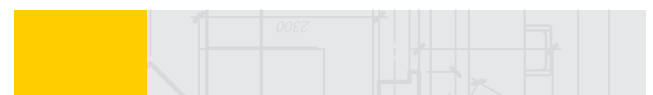
As income from oil revenues has not been stabilised due to the prevailing low oil prices, PDO is still pursuing all possible opportunities to work efficiently and to identify and implement cost savings across all our activities.

At the same time, there has been an onus on maximising production and ensuring timely project delivery so as to accelerate monetisation of our investments whilst staying the course on our ICV journey. With this in mind, our priorities in 2018 remained on improving the sourcing cycle time to ensure faster contract awards, enhancing material management and vendor delivery performance, and working closer with our suppliers to identify and implement cost efficiencies.

Additionally, we embarked on a transformation journey to become a valued business partner and deliver the most competitive supply chain to PDO by 2020. The transformation journey has defined five key outcomes:

1. Increasing the value delivered
2. Reducing sourcing cycle times
3. Improving business partnerships
4. Improving the timely delivery of materials
5. Reducing inventories

The programme has identified several projects/initiatives and a roadmap to drive these key outcomes which have been defined with measures and targets as strategic key performance indicators for contracting and procurement.



People and Staff Development

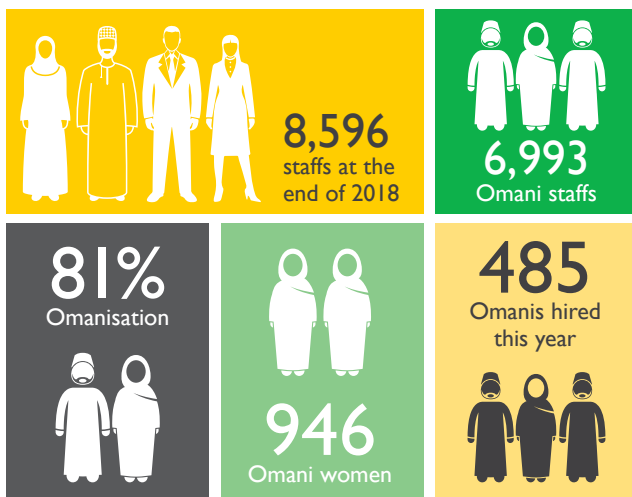
2018 Highlights

- Highest number of women on staff
- Signing of a landmark Terms of Reference (ToR) agreement with the PDO Trade Union
- Expansion of the Maktabi (My Office) remote working pilot
- Increase of maternity leave to 112 calendar days



PDO's people are the Company's greatest asset. They are skilled and they are knowledgeable and the great majority of them are Omanis. It will be the collective commitment, skills and expertise of all PDO's people that helps to sustain the development of the nation.

At the end of 2018, PDO had 8,596 staff, of which 6,993 were Omanis. The Omanisation rate increased from 79% to 81%, and we are expecting this to reach 90% by 2020. There were 1,032 women on staff, including 946 Omanis, the highest number in our history. A total of 485 Omanis were hired in the year and the total number of Omani graduates was 720. There were 1,537 Omani promotions with 310 Omanis in senior positions.



Employee Engagement

There was a record response to our annual People Survey, with a participation rate of 81%, up from 75% in 2017. The survey is an invaluable tool for gauging employee sentiment, identifying areas for improvement and highlighting best practice. From the 6,572 surveys completed, there were improvements on the majority of areas covered where year-on-year comparisons could be made. There was an increase of favourable ratings in six out of the 11 survey dimensions including Collaboration (81%), Diversity and Inclusion (81%) and Responsible Business (80%). The results for Organisational Leadership, Reputation, and Speed of Decision Making were rated top quartile.

PDO employees and contractors again participated in their team's face-to-face follow-up sessions in response to the People Survey. This allows the Company to hear and understand the stories behind the numbers and to initiate solutions and measures that yield positive change and effective improvements.

PDO recognises an independent company trade union affiliated to the Omani General Federation of Trade Unions in line with the Omani Labour Law. Arrangements with the PDO Trade Union extend to "consultative rights." A landmark Terms of Reference (ToR) agreement was signed between PDO and our Trade Union, documenting the rights and obligations of both, with the objective of fostering a positive and constructive relationship between the two parties in their mutual pursuance of a harmonious and constructive employee relations climate.

This recognition covers all directly operated PDO activities but does not extend to contractors and sub-contractors. The right to exercise freedom of association and the consultative





arrangement with the PDO Trade Union are not considered to be at risk of either restriction or withdrawal.

Diversity and Inclusion

We continued to raise the bar on diversity and inclusion (D&I) with new initiatives to tackle the three main pillars of fairness, gender balance and bullying. With a workforce drawn from around 70 countries, PDO is firmly committed to D&I and providing opportunity for all in a supportive working environment.

Each pillar is sponsored by a member of the Managing Director's Committee (MDC), who also sits on the MDC Diversity and Inclusion sub-committee.

PDO defines a fair workplace as one where people are treated equally without bias, favouritism or discrimination, and where the people processes are merit-based and provide opportunities based on ability and skills.

Around 1,500 staff attended the 67 sessions of the new mandatory D&I awareness course that was first introduced in 2017 to boost understanding of D&I concepts and of how to handle issues professionally. This was in addition to department-specific D&I engagement sessions that teams continue to arrange.

More staff in both Coastal and Interior locations volunteered for D&I advisory roles to guide those who need direction on how to handle issues, and HR Business Partners fully participate in all people-related processes, including ranking and progression, to ensure fair opportunities for all.

A dedicated full-time Diversity and Inclusion Officer raises awareness around the issue and investigate complaints and a confidential reporting hotline has established for staff to report concerns. A total of 79 issues relating to D&I were logged, 91% of which were closed by the end of the year.

Communications continue to play an important part in building understanding around D&I. This has included producing videos, enhancing the Company website and intranet pages as well as staff magazine and newsletter articles. D&I branding is prominently displayed around the offices in our headquarters building in Muscat to raise the D&I profile across the organisation.

With a workforce drawn from around 70 countries, PDO is firmly committed to D&I and providing opportunity for all in a supportive working environment.

Progress on gender diversity and work-life balance is another important area. We have provided mentoring, training and facilities to enable women to be based in the Interior in operational roles, providing them with a greater opportunity to develop their skills and realise their full potential.

We have scrapped gender-specific recruitment requirements for all jobs. In the past, PDO's field positions were open to men only but the decision was taken by the Gender Balance team to increase female representation across PDO and specifically in the directorates with the lowest gender balance: Operations and Well Engineering. Currently, women comprise 12% of staff in PDO overall, but the aspiration is to make that one in five people by 2022.

Training

More than 1,620 staff have enrolled in our Graduate Development Programme (GDP), which was launched in 2013 to provide structured, on-the-job training, monitoring and assessment for Omanis who join the Company after graduating from universities or colleges with Bachelor degrees or above. It now covers more than 50 technical and non-technical disciplines, such as mechanical engineering, production operations, petrophysics, geosciences real estate commercial services and finance in business. Last year, the second batch of 275 employees successfully exited the GDP.

PDO currently has 161 scholars and development staff studying at different degree levels in the UK, Australia, Canada, USA, Germany, Oman and the Netherlands, and 93 celebrated their graduation last year – the 30th sponsored batch to successfully qualify from courses in a range of disciplines since we launched our flagship Scholarship Scheme in the 1980s.

The successful scholars studied subjects including exploration geophysics, oil and gas pipeline engineering, petroleum engineering, project management, information technology and translation.

In 2018, PDO continued supporting its staff development by offering six undergraduate scholarships in chemical engineering and electrical engineering. The Distance Learning Scheme annually supports 40 PDO staff to complete their BScs and MScs, allowing staff to continue their academic development while continuing their current work duties. Currently, we have 141 active staff on this scheme.

The PDO Learning and Development Centre continued to maximise in-house delivery of courses as part of the cost efficiency strategy. We delivered more than 464 technical, non-technical, HSE and process safety courses, covering 45,471 mandays.

As part of our efforts to extend training beyond our borders, we delivered 152 learning events with a focus on process safety to 953 candidates from both PDO and local operators, contractors at our state-of-the-art Wells Learning Centre, which is accredited by the International Well Control Forum (IWCF). This has resulted in overall savings of more than US\$1 million.



Remote Working

The scope of the remote working Maktabi pilot (My Office), was expanded and now covers more than 250 staff. The scheme was launched in 2017 to help assess how best to execute a major change in our work arrangements and offer employees the flexibility to either work from home and/or a hub located in Seeb.

It now includes more participants from all functions at the coastal area and there is a plan to increase the hub capacity to cater for a growing number of participants.

The pilot measures the effect of remote working on employee performance and productivity, development, work-life balance, hub utilisation and cost saving and effectiveness. Initial results have been largely positive with slight improvements in the areas of work-life balance and productivity.

We will continue to closely monitor these measures to ascertain the success of the pilot and to explore innovative approaches to support greater flexibility in work locations and opportunities and part-time working patterns to underpin the Company's D&I strategy and employee welfare.

Pay and Conditions

PDO's workforce is predominantly comprised of Omani nationals, with direct hire expatriates and secondees from Shell. The benefits provided to these groups reflect the policies and terms of employment guided by the Omani Labour Law and the established standards in the national and expatriate employment market. Benefits provided to Shell secondees are largely aligned to Shell international mobility policies, with direct hire expatriate packages including benefits and allowances typical of expatriate contracts, such as home travel and educational support for children.

PDO applies a basic 3% minimum annual pay increase subject to "good performance" for all nationals, in line with the Omani Labour Law. Whilst not required by law to non-nationals, PDO implements this standard across the board. All increases above the threshold are linked to performance and the employee's salary relative to the maximum limit on their salary scale. All full-time Omani employees are eligible for the PDO Pension Fund that provides a defined benefit, the final salary pension. This is not available to national locals employed on temporary contracts or non-national staff. A minimum notice period of a month is given for operational changes.

Parental Leave

We enhanced our Maternity Leave and Benefits policy in October 2018 in line with our D&I strategy and our desire to be the employer of choice for females in the country. The maternity leave was increased from 70 to 112 calendar days. The Company also extended the provision of one nursing hour per working day granted to mothers with children up to six months old until the child reaches the age of one year.

A total of 111 female employees embarked on maternity leave in 2018, 44 of whom benefited from the policy update.

General Welfare

2018 Highlights

- Delivered a record road safety performance
- More than 750 million km driven without a work-related motor vehicle fatality
- Committed to 36 new social investment projects totaling US\$15.5 million
- Completed work on five majlises and a fish market





The welfare of people and the natural environment are enshrined in PDO's Business Principles – the document at the top of its Corporate Management Framework. The Company will never be satisfied with the way it carries out its ambitious plans unless it does so in a way that respects people's health and safety, that benefits neighbouring communities and that maintains the environmental richness of the country.

Safety remains PDO's overarching priority with an unrelenting focus on Goal Zero – no harm to people, environment and assets.

PDO concluded 2018 with a record safety performance. The Lost Time Injury Frequency (LTIF) per million manhours worked dropped from 0.20 to 0.15, a 25% fall, while the Total Recordable Case Frequency (TRCF) per million manhours worked also fell from 0.72 to 0.71. Unfortunately, the performance was marred by two work-related fatal incidents involving contractors.

The annual exposure was 214.8 million manhours worked and 314.4 million kilometres driven. There was a slight reduction in the Severe Motor Vehicle Incident Rate of 14% (0.07 to 0.06) compared to 2017. In the process, PDO also celebrated the achievement of driving more than 750 million kilometres without a work-related motor vehicle fatal incident.

Road Safety

PDO is committed to improving road safety both within our own boundaries and beyond.

Our dedicated Journey Management Control Centre (JMCC) is helping to manage road exposure to an even greater degree in the future, along with greater compliance, consequence management and coaching across both our staff and contractor vehicle fleet.

The JMCC, which was established in 2016, to track vehicles and driver behaviour on the road, has led to a 97% drop in the average number of violations per vehicle per month (such as speeding nor not wearing seat belts) to less than 1 and is now monitoring more than 8,250 vehicles in the PDO and contractor fleet across 224 contracts.

The centre's functionalities have been expanded to include e-journey management for PDO with a view to including contractors soon. We are also in the process of expanding these functionalities further to include fatigue management by piloting in-cab cameras, as well as mandating contractors to introduce online monitoring and daily violation reporting.

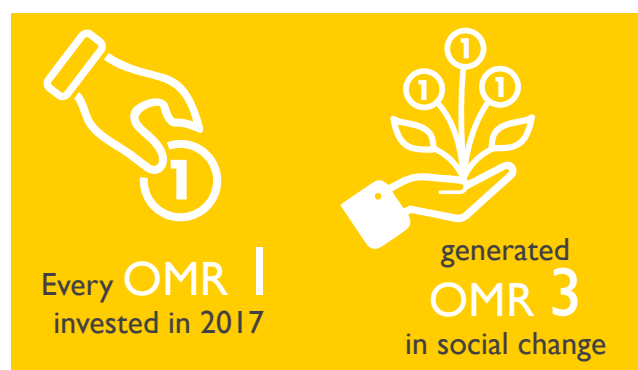
PDO launched a commuter bus scheme in the summer of 2013 to reduce the rate of road accidents by cutting the number of staff and contractors using private vehicles to get to and from work.

The service has expanded steadily and now covers 28 hubs and 65 villages. Since it started, it has carried 436,110 passengers, including 152,556 PDO staff, and an average of 10,539 passengers a month now use it. According to the latest study, 80% of PDO staff are using one of the commuting modes provided by the Company.

PDO's nationwide "Tell A Friend" campaign, which was launched in 2013, continued to spread a culture of road safety targeting areas such as responsible driving, speed management, vehicle maintenance, proper seat belt usage and driving whilst fatigued.

The "Tell A Friend" roadshow, featuring exhibitions, lessons, competitions and plays, visited locations in Saham, Salalah and Sur and a four-day event was organised in Nizwa. It also held the inaugural road safety student conference in Salalah offering a course on road safety and a workshop on critical thinking and problem solving.

An analysis of the social return on investment for the campaign revealed that:



Social Investment

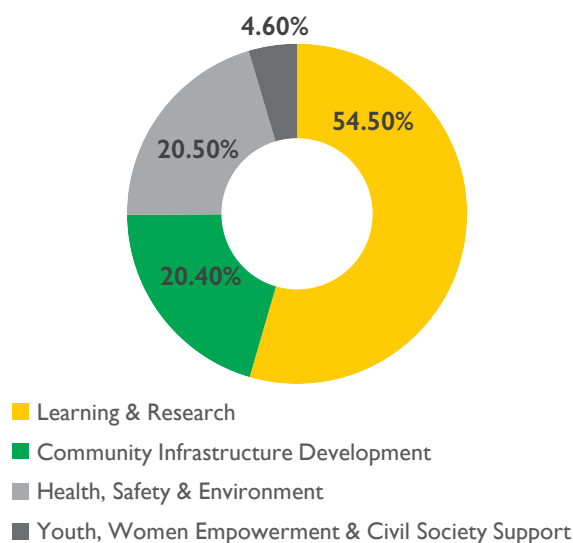
As a responsible corporate citizen, PDO is committed to delivering meaningful social investment programmes that create sustainable benefits for Omani society in line with the United Nations' Sustainable Development Goals (SDGs).



Our focus throughout the year was on four social investment themes: learning and research, community infrastructure development, health, safety and environment (HSE), and youth and female empowerment (the latter supporting grassroots organisations in local initiatives).

We committed to 36 new social investment projects, totalling around US\$15.5 million¹, which will have tangible impacts on the quality of life of thousands of people living in our concession area and beyond, including infrastructure development, training, and the provision of technology and equipment. A further US\$1.2 million was distributed in sponsorships, grants and donations to support impactful initiatives from local organisations.

2018 SOCIAL INVESTMENT SPEND



Learning and Research

In an endeavour to improve access to education for rural populations and support learning for girls, PDO pledged to expand 12 schools in the concession area by adding wings for female students and building five classrooms in Al Khairan School in Muscat to replace the existing damaged caravans.



In addition to constructing a new school in Dhahboon, we inaugurated the Oman Innovation Hall in Sinaw, now equipped with state-of-the-art equipment. We also completed renovation of three school science laboratories to raise the interest of students and the public in the fields of robotics, nanotechnology, 3D printing and virtual reality, and give them hands-on experience in STEM [science, technology, engineering and maths] subjects.

Community Infrastructure

Work on five public majlises in Thumrait and Izki – offering safe spaces for gathering for local community celebrations – was completed in 2018. We further pledged to build five more majlises in Shaleem and Samayel and a camel racetrack in Haima.



The Company also committed to building infrastructure to access safe potable water and food supplies with the renovation of a falaj in Samael, the construction of the Food and Water Control Laboratory in Haima to cater to Al Wusta Governorate, and the maintenance and expansion of a falaj in Izki.

The year also saw the completion of public parks in Manah and Samayel, and a multi-purpose hall and a fish market in Ibri to provide a safe and hygienic environment for the sale of perishable seafood products in remote areas.

¹ This year, the total amount invested includes contributions from capital expenditure (Capex) and operational expenditure (Opex), whereas last year, the total reported amount included the Opex contribution only.

Youth and Female Empowerment

As part of our efforts to empower youth, women and the larger civil society by supporting grassroots organisations in local initiatives, PDO renewed its commitment to its Non-Governmental Organisations (NGOs) Development Programme for the third time with funding and knowledge-sharing provided to 10 new NGOs for a period of two years.

In collaboration with the Omani Women's Association in Salalah, our flagship social enterprise Banat Oman introduced new training for 25 women in bakhour and perfume making to generate a new stream of income.

We further committed to train 30 jobseekers in Bahla to equip them with the necessary skills to enter the job market as part of an employability skills programme.

HSE

PDO pledged to fund the construction a 21-bed in-patient ward for the Neurology Department at Khoula Hospital. It also supplied a range of medical equipment to local hospitals including CT scan equipment for Masirah Hospital to help with the accuracy of diagnosis and speed of treatment; 51 physiotherapy beds for the treatment of elderly and disabled people in 50 clinics; and an ambulance for Al Mashas Health Centre in Maqshan to improve emergency response times. In addition, the Company funded a walking trail with outdoor exercise equipment in Dhank's public park to promote a healthy lifestyle.

The first aid training programme for school students, school nurses and teachers to become certified first aiders, which was launched in 2017, was kicked off with the selection of



300 teachers and nurses to deliver the training and the distribution of medical kits to schools.

Road safety was also enhanced with the installation of the highest number of solar reflective lights ever on a road, achieving an official Guinness World Record. The 43,550 "cat's eye" units were fitted on a 650 kilometre stretch of highway in the south of our concession area. In an effort to reduce child road fatalities and support the Government's mandatory child seat law, PDO teamed up with Shell and the Oman Liquefied Natural Gas Foundation to launch a joint road safety campaign targeting children and parents on the need for proper child seating in vehicles.

In an initiative to boost both the rural economy and animal welfare, PDO financed the provision of nine mobile veterinary clinics for rural areas within our concession.

Contractor Welfare

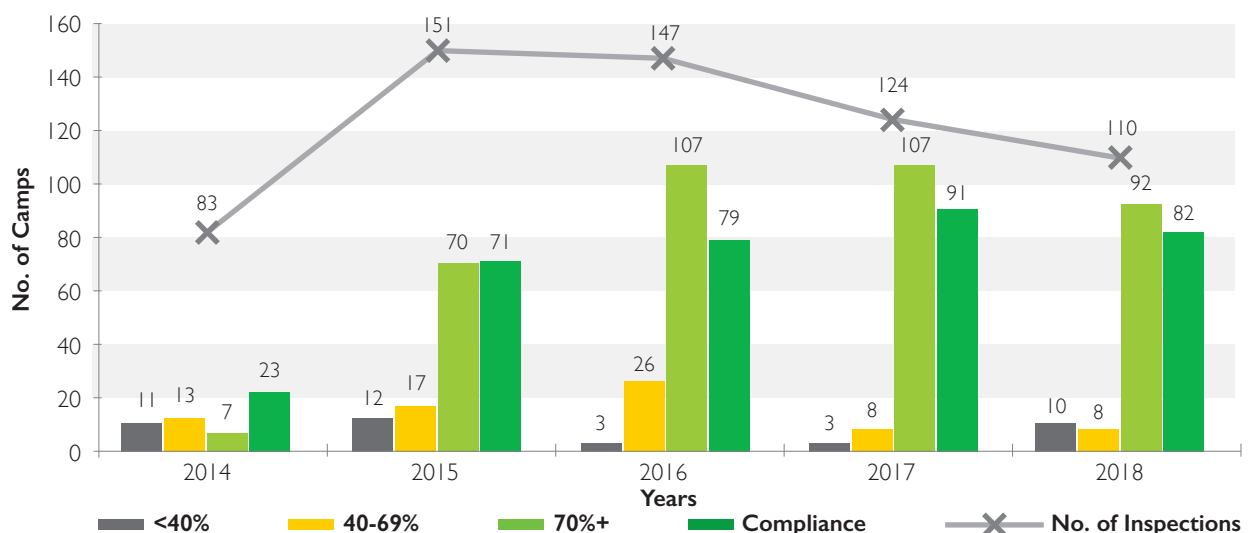
Accommodation Facilities

PDO has continued to improve the standards of its permanent accommodation camps (PACs) and temporary accommodation camps (TACs) in the Interior through internal specifications and inspections.

These inspections are done annually by trained occupational health specialists who visit the camps and verify that our stringent stipulations are effectively implemented. In 2018, PDO adopted the OPAL Camp Standard, further improving the accommodation standards and benchmarks.

Accommodation camps consist of sleeping, kitchen, ablution and recreational facilities. Compliance levels have improved significantly since the initial inspections were done in 2014 when only 23% of TACs were found compliant with the formal public health requirements.

PAC/TAC DEC 2018





The graph below indicates the number of inspections and improvements that have occurred since then.

A total of 110 inspections were carried out in 2018 and 91% of the accommodation facilities were compliant by Q4 in 2018. All deviations are immediately reported and corrective actions are closely monitored. Penalties are imposed if actions are not carried out.

This has impacted positively on the wellbeing of employees and contractors in the Interior, with improvements noted in food quality, laundry, accommodation, ablution and recreational facilities.

Prism

Project Prism, a industry-first three-year initiative to improve contractor welfare standards for those working in the Interior by embedding a duty of care mindset across the wider PDO contractor community, was successfully completed in 2018. A total of 90,000 interviews involving personnel from 200 Interior-based contractors and sub-contractors were conducted, with more than 600 coaching sessions delivered to drive worker welfare improvements.

The next phase of Prism will continue in 2019 with the aim of improving PDO's processes on worker welfare and making them the best in class before launching the standards to the rest of the oil and gas industry.

The project team is also exploring collaboration opportunities with the Shell Welfare team in the area of data analytics to establish productivity/performance indicators from the Prism data.

Disaster Relief

PDO donated RO 5 million to ease the suffering of those affected by the Cyclone Mekunu storms that hit southern Oman and support recovery efforts. A separate staff appeal raised a further RO 166,000 for the cause.

More than 1,400 employees contributed from their salaries to help repair houses damaged in the storms with the money being divided between the southern wilayats in Dhofar and residents' property that has been damaged in the concession area.

Additionally, a further RO 50,000 was donated to help victims of the devastating floods in Kerala, India which displaced more than a million people.

Medical Care

PDO's Medical Centre in Mina Al Fahal, along with eight Interior clinics, has established its commitment to delivering high quality, integrated health care to PDO employees, their dependents and PDO pensioners.

It provides patients with state-of-the-art facilities as well as

a comprehensive range of services to address the needs of every patient. It also ensures support for secondary and tertiary care levels, mostly through external providers. The team includes 15 doctors and 44 well-trained nurses.

Provision includes an occupational health department, a high-tech multi-disciplinary lab, a pharmacy, specialist clinics, and vaccination, dietician and ante-natal services. There is also a medical emergency response with a fleet of 15 ambulances which not only serve PDO but also the community at large. A wellness services and exercise facility for both men and women is run under medical management. The total number of patient visits to PDO clinics in 2018 was 73,355. The Medical department also referred over 17,000 visits to private medical care facilities.

We are also working on the centralisation of medical facilities in the Interior with a new central medical complex in Fahud. The facility, which is expected to be operational in 2020, will serve as a reference clinic providing better health and medical emergency services to PDO staff and contractors.

Health promotion and education remain an integral part of the department's medical responsibilities. PDO's medics were involved in a wide range of training and awareness programmes and activities which attracted hundreds of staff and contractors. Support in 2018 included advice and sessions on stress management, the importance of physical activity, Ramadhan health tips, first aid and CPR, dietary

management in chronic diseases.

We arranged a number of external training sessions covering various medical topics and attracting hundreds of medical professionals from different specialties. We also presented our experience at the 7th GCC Conference and Exhibition on Wellbeing and Occupational Health held in Oman last year.

The Medical department has continued to support Ministry of Health blood donation campaigns in its efforts to maintain a good stock of blood reserves. In 2018, more than 1,200 staff participated in these events maintaining PDO's ranking as the largest corporate blood donor in Oman.

Child Labour, Forced Working and Indigenous Rights

As a responsible employer, PDO does not employ staff below the age of 18 and, to the best of our knowledge, neither do our contractors. We also do not force or make compulsory any employment relationships within our organisation. In all cases, PDO applies, and enforces on its contractors, the complete application of the Omani Labour Law. There has not been any registered case against PDO or any of its contractors related to child labour or the exposure of young workers to hazardous work, neither through the Labour Inspection Department of the Ministry of Manpower, nor from our Corporate Occupational Health department, which conducts frequent visits to the sites of the Company's



Environmental Sustainability and New Technology

2018 Highlights

- Contract agreed for world-first solar power site
- Significant improvement in power generation efficiency
- Over 75 new technologies matured
- Greater collaboration between academia and business through Ejaad



While oil and gas will continue to be fundamental to our energy mix, we are developing innovative renewable solutions to create new growth opportunities for the Company as well as for the nation. This gradual transition to a fully fledged energy company also means leveraging new technology and greater collaboration as well as improving our overall energy efficiency and water management.

Renewable Energy

The transition to renewables will help address growing climate change realities, free up huge quantities of natural gas that can be used for Omani industry or for export and to establish the Sultanate as a hub of "green" energy expertise, creating new jobs and localised supply chains.

We have conducted detailed studies which have identified great business potential in three areas:

- Electricity to replace gas-fired power plants
- Power-to-x to supply areas that have so far been covered by burning of gas or liquids such as steam, heat or hydrogen generation
- Industrial growth that focuses on attracting new demand based on low cost energy.

In 2018, PDO awarded the contract to the Japanese-Omani Marubeni consortium to build and operate the country's first solar photovoltaic (PV) independent power producer (IPP) at Amin field. It will also be the world's first utility-scale solar project to have an oil and gas company as the sole wholesale buyer of electricity.

The desert facility will consist of more than 335,000 solar PV panels, producing enough energy to power 15,000 homes, and span an area equivalent to 480 football pitches. The project will be structured as an IPP under the terms of the power purchase agreement for a period of 23 years from the scheduled commercial operation date, which is planned for May 2020. The consortium will build, own and operate the facility and then transfer it back to PDO.

The plant is expected to introduce an equivalent fuel saving of 70.5 million cubic metres of gas annually, resulting in a total saving of US\$17 million a year through the use of solar power as an alternative to natural gas. It will also reduce overall carbon dioxide emissions by around 137,121 tonnes annually, the equivalent of taking 23,000 large cars off the road. The project includes the design, procurement, construction, commissioning, financing, operation and maintenance of the solar photovoltaic plant with a 100MW capacity and associated infrastructure.

With partners GlassPoint Solar, we also launched the new





SolaRISE technology centre near the giant Miraah project in Amal which it is building and operating to generate solar steam for use in thermal enhanced oil recovery as an alternative to burning gas. The first 100 MWt of Miraah came on stream in 2017 and the installation is meeting all performance targets.

SolaRISE (standing for Solar Research, Innovation and Sustainability in Energy) is a joint initiative formed to develop and test next-generation solar technologies in an oilfield environment. The centre will focus on continuous cost reduction, including new concepts and designs to reduce material costs, ease oilfield integration and automate operations. It will also pilot and evaluate solutions for using solar energy for other industrial processes in Oman and around the world.

Other solar ventures include:

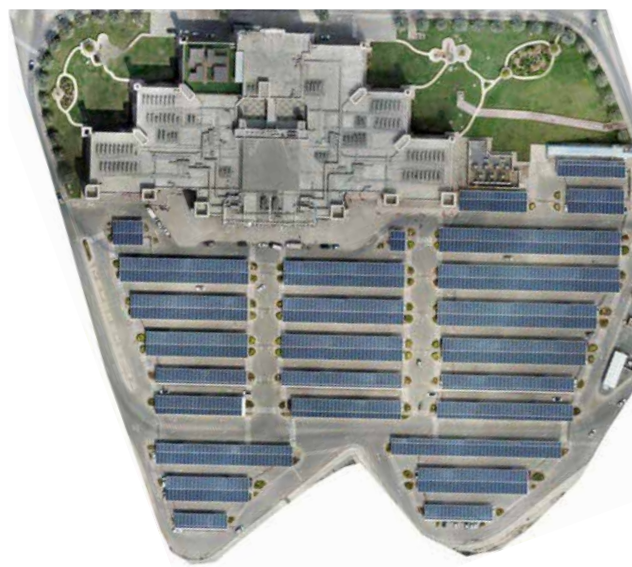
Mina Al Fahal Car Park

PDO has embarked on the second phase of the Mina Al Fahal solar project to cover a wider area and increase renewable energy penetration in the grid. A further 12,500 solar PV modules are being fitted and, once completed, the car park will have a total capacity of 10.3 MWp (megawatt installed peak) and be one of the largest in the world. The generated power will be fed into the local grid, meeting most of PDO's power demand at the Coast.

The second phase is being directly managed by PDO through its established contractors and it is expected that up to half of the project's total contract value for goods and services will be retained in country.

Ministry of Oil and Gas Car Park

PDO is managing a similar installation for solar parking at the Ministry of Oil and Gas to further showcase the ministry's commitment to renewable energy and energy efficiency initiatives. The project consists of converting around 500 car parking lots to generate power and involves a number of Omani SMEs specialising in renewable energy.



Awifiya Water Well

PDO installed a solar system to power a water well serving a rural community of 200 people. The work on the 10 kilowatt (kW) scheme was carried out by an Omani company Nafath Renewable Energy LLC in Awifiya, Bahla.

A total of 42 PV panels were installed and the system has been connected to the grid, meaning the green electricity can be fed into the network or the well can draw on additional power if required.

The project marked another step on our renewable energy journey to extend the concept of eco-friendly power into the community. PDO is now considering whether to expand the scheme to power a reverse osmosis plant.

Ras Al Hamra

PDO also installed a 10 kW capacity for 10 villas in Ras Al Hamra to showcase the residential contribution that can be made to renewable energy.

Energy Efficiency

Improving energy efficiency is a key focus of PDO's Gas Conservation Strategy.

In addition to flare reduction (see Environmental and Safety Performance chapter) a number of initiatives have been implemented, including the use of energy-efficient power generation turbines, the deployment of electric submersible pumps to replace gas lift technology and power station waste heat (co-generation).

Power generation efficiency has improved significantly. In 2010, 320m³ of gas was required to generate 1 MWh, but this has been reduced to 301m³/MWh, with the further aim of cutting it to 275m³/MWh by 2021, once all the planned combined cycle gas turbine units are commissioned.

Energy benchmarking of all PDO facilities has now been completed to improve understanding of their performance and identify gaps in terms of power and fuel gas consumption.

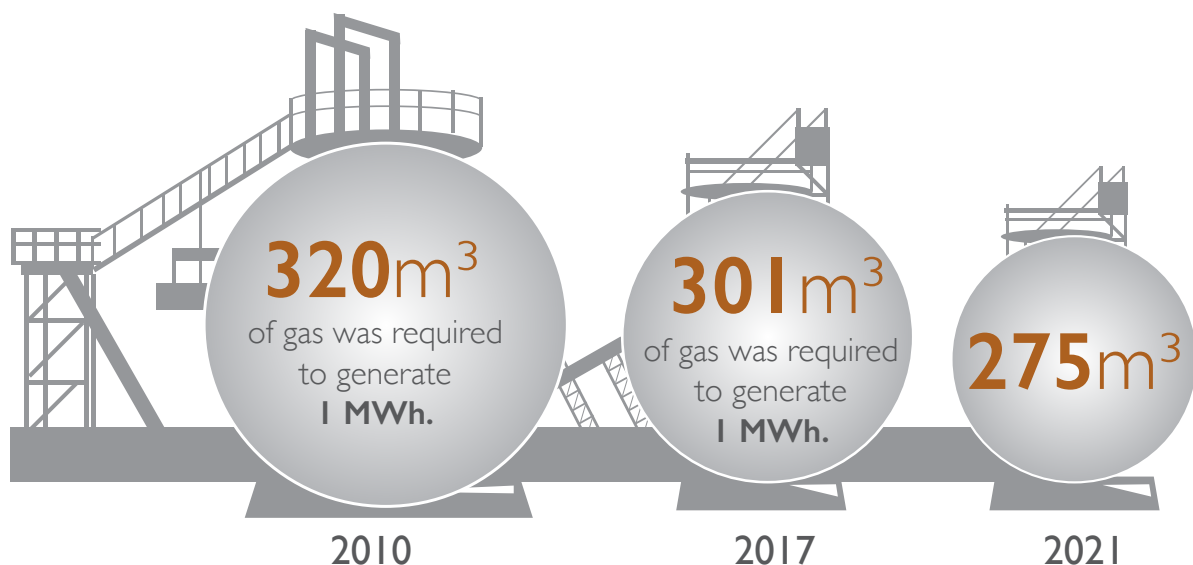
Additionally, an Energy Efficiency Surveillance Tool has been deployed in six assets after a successful trial in Marmul and Lekhwa. The tool indicates any inefficient use of power or fuel gas, which helps operators to take corrective action. PDO has also started energy assessments at Fahud Station, one of the high-energy consumers, to identify improvement opportunities.

Water

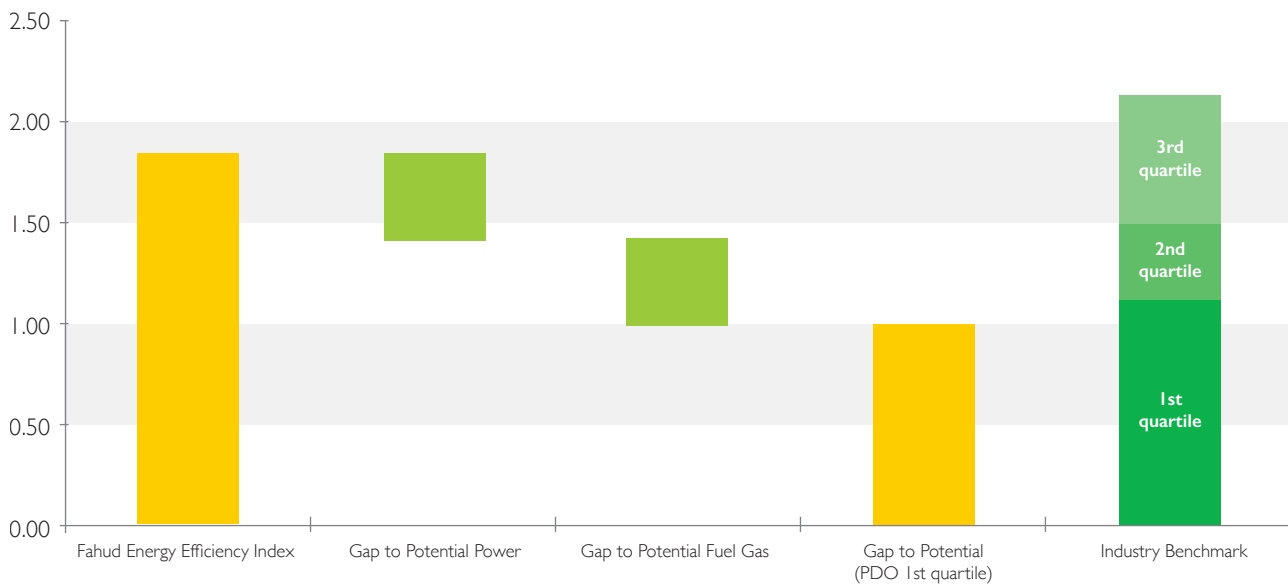
PDO currently produces close to 910,000 m³/d of water which is set to exceed 1,000,000 m³/d from this year onwards. Around 55% of this is used for pressure maintenance and some 300,000 m³/d of the excess is disposed of into deep formations known as deep well disposal (DWD). PDO continues to seek alternative methodologies for the cleaning and reuse, or disposal of, produced water in a manner that consumes less energy and with minimum impact on the environment.

The award-winning Nimr Reed Beds, operated by Bauer Nimr on behalf of PDO, are currently treating approximately 115,000 m³/d of produced water at a fraction of the cost and energy intensity of gas-hungry conventional DWD. In total, by the end of November 2018, the Reed Beds had processed approximately 258 million m³ of produced water and recovered around 2.1 million barrels of oil since operations began in October 2010. This pioneering enterprise has also led to a greening of 10.5 km² of desert and a projected saving of more than 64.5 gigawatts of energy which is equivalent to saving 680 million m³ of gas over 10 years - a 98% reduction in energy requirements.

As part of PDO's effort to further reduce the energy-intensive DWD operation, an additional volume of 60,000



FAHUD ENERGY CONSUMPTION GAP TO POTENTIAL



m³/d of produced water is planned to be exported to the scheme with its expansion in 2019. This will save an additional 15 MW of energy which is equivalent to saving 40 million m³/year of gas. The wetland plant will contribute to a reduction of more than 200,000 tonnes of CO₂ per annum as a result of the removal of DWD pumps.

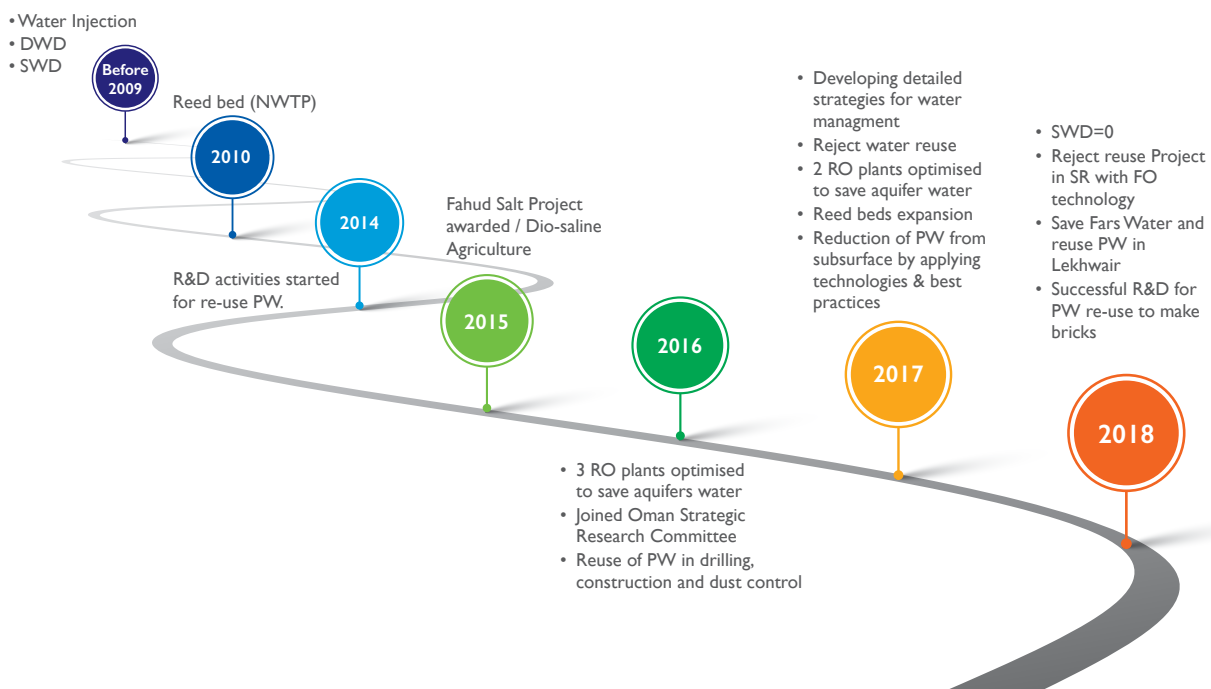
As part of PDO's commitment to ensuring that all of our water management efforts are in accordance with Omani laws and regulations, we continue to seek alternative strategies to reduce, reuse and relocate produced water.

There were a number of key milestones on PDO's water management sustainability journey in 2018:

- The Water Management (WM) team carried out an optimisation study for Amal Water Treatment Plant (WTP)

that resulted in a 4,500 m³/d increase in WTP production capacity by without any capital investment

- The WM team carried out another optimisation study for 31 potable water reverse osmosis (RO) plants across PDO assets with the aim of increasing the permeate recovery and reduce disposal load. This effort culminated in converting 7,000 m³/d of RO reject water into permeate water and reducing additional aquifer abstraction by 14,000 m³/d without incurring a capital cost or deteriorating water quality
- At the Qarn Alam Steam (QAS) WTP, the WM team successfully demonstrated the beneficial use of low pressure steam condensate (that was being disposed of), as an additional source for boiler feed water (BFW). This resulted in an additional 4,000 m³/d of BFW for the asset.



The above green initiatives resulted in a substantial capital expenditure saving, a reduction of 12,000 m³/d of disposal volume and savings of 23,000 m³/d in aquifer water abstraction.

The three-year biosaline agriculture trial at Nimr (which commenced with contractor Bauer in 2015) is coming to its final phase with a number of crops identified as having promise for possible commercial application, and the possibility of producing biomass and oil seeds.

There is ongoing collaboration work with Sultan Qaboos University to use local soil and low-salinity treated produced water to manufacture compressed stabilised soil blocks to reduce building costs. The study is also coming to an end and bricks have been used to build a small room to test the strength and thermal conductivity of the walls. PDO and SQU are collaborating in identifying further work and deployment for this opportunity.

New Technology

PDO continues to innovate and invest in technologies to address the challenges from complex reservoirs, ageing facilities, the need to optimise production and minimise cost and the imperative of enhancing personal and process safety.

In 2018, over 75 new technologies were matured by the New Technology team with a trial success rate of over 94%. Progressing technologies from the pilot phase to full implementation is now taking place seamlessly with the introduction of an interim deployment strategy which has helped realise over US\$12 million to date.

With the advent of the Fourth Industrial Revolution, we are increasingly leveraging digital systems, automation, artificial intelligence and data analytics.

Analytical tools and systems have a vast range of surface subsurface applications, helping to identify anomalies in the functioning of artificial lift pumps, enabling predictive maintenance of equipment, generating automatic interpretations of seismic volumes and offering real-time optimisation of drilling parameters.

PDO collects over 1.2 billion pieces of data per day from its wells and various assets and that number is set to grow. Our systems enable us to spend less time in identifying operational or tactical issues and more on fixing problems.

The deployment of in-house designed automated technology (known as BLADE) across 80 wells at Amal East has seen the development of algorithms which automatically control the variable speed drives on beam pump wells. This has added 1,250 barrels a day, freed up production technologists, reduced breakdowns by 31%, lowered operational expenditure and eliminated HSE exposure. The system can be replicated to over many beam pump wells across PDO.

Other systems include Nibras which employs an exception-based surveillance approach programmed to automatically flag out-of-sync data variables from the millions of data values it collates every two minutes. Another is Al Fikr, a web-based system which significantly improves the management of projects, decreasing project duration time. This automated system liberates the equivalent of up to four full-time staff a year to take on additional work.

However, far from being an engineering-only tool, numerical techniques to interpret the flood of data are being used in many functions all the way up to management to support business decisions.

We are also using drone, smart mobility and video collaboration technologies to boost field staff productivity (with a 25% time saving). These systems also increase assurance compliance, real-time monitoring and data quality while reducing HSE exposure. Our Smart Worker Mobile solution gathered momentum in 2018, with more than 300 staff using HSE-approved mobile or tablet devices to increase efficiency in the field.

The new tools ushered in by the age of the digital oilfield have facilitated collaboration,

and last year we officially opened up our Gas Network Operations Centre (at Saih Rawl which has centralised the Company's gas operations remotely to more efficient communication channels and enhance efficiency. All other operations will be rolled into a new Integrated Operations Centre which will be built at Mina Al Fahal.

In 2018, PDO appointed a Chief Information and Digitalisation Officer, becoming the first government majority-owned entity in the Sultanate to have a coherent data strategy. Each directorate also now has an analytics focal point who is responsible to track ideas that unlock value from data and articulate them at the corporate level.

Over 75 new technologies were matured by the New Technology team with a trial success rate of over 94%.

More than 220 digital projects are ongoing across the organisation, with over 20 of them regarded as key future-centric technologies such as machine learning, software robotic automation and predictive analytics.

We continue to work beyond our boundaries to share knowledge and learn from best practice. Through our New Technology team, we are also leading the way for integrated industry-academia research and development projects. The first four agreements, all for PDO work, were awarded through the online Ejaad platform, which has helped foster collaboration, transfer knowledge and build a new R&D ecosystem in Oman.

PDO also continues to collaborate with international bodies such as the European Union, United Nations, International Energy Agency, World Bank, International Energy Renewable Agency and others to leverage their expertise.

Environmental and Safety Performance

2018 Highlights

- Substantial fall in oil spills
- Significant improvement in waste management
- Launch of campaign to curb single-use plastic
- Adoption of global HSE management system ISO-45001



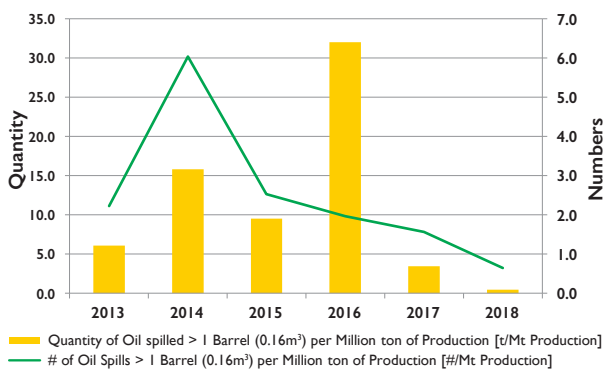
PDO is constantly striving to protect Oman's environment and prevent pollution. In 2018, we improved environmental performance across many aspects, including oil spills and waste management and broke new ground in the field of renewable energy. The achievements are summarised below.

Spills

In continuance of our efforts to improve integrity and reduce the number of spills, PDO completed the replacement of more than 3,300 kilometres of flowlines and pipelines in 2018. Many on-plot lines were also replaced and the work will continue.

There was a significant decrease of 85.6% in the quantity of oil lost per million tonnes of production, from 3.46 tonnes in 2017 to 0.46 tonnes in 2018. The number of oil spills per million tonnes of oil production also showed a 58.6% fall down to 0.65 in 2018 compared with 1.57 in 2017. No major oil spills were recorded in 2018 which helped in achieving this milestone.

OIL SPILLS PERFORMANCE POTENTIAL



Greenhouse Gas (GHG) Emissions

Due to the increase in gas flaring and emissions from combustion sources in 2018 and a change in the calculation methodology, PDO's greenhouse gas (GHG) emissions increased by 25%, reaching 0.20 tonnes (CO₂ equivalent) per tonne of production compared to 0.16 tonnes of CO₂ equivalent in 2017.

GHG emissions remained a focus area in 2018 and a detailed GHG roadmap was developed to support PDO's corporate Energy Management Strategy which addresses GHG reduction by the implementation of three main approaches - reduce, replace and renew.

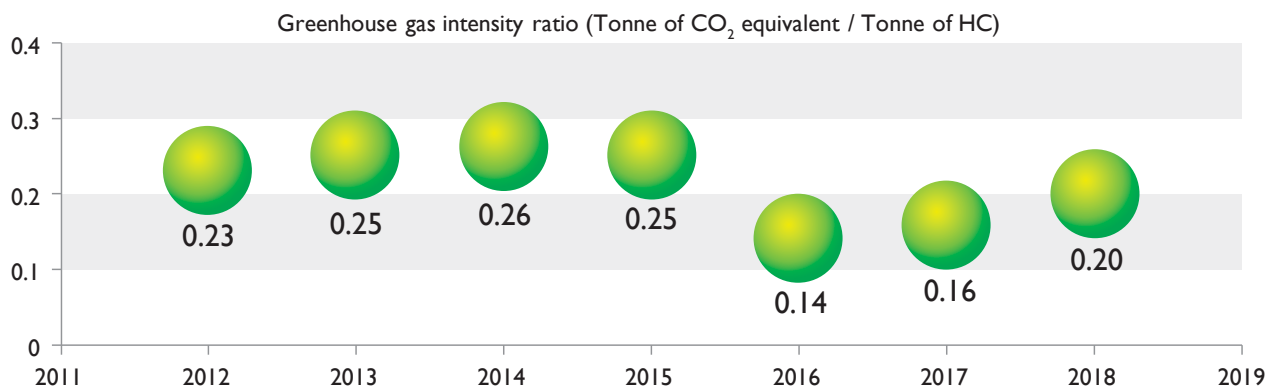
- The "reduce" element focuses on flaring and the consumption of power and fuel gas by improving the efficiency of the facility, identifying improvement projects through the energy assessments and use of an Energy Efficiency Surveillance Tool (EEST)
- The "replace" element aims at replacing non-efficient equipment such as the replacement of old open-cycle power generation plants to more efficient closed-cycle ones and using light emitting diode (LED) bulbs instead of conventional lights
- And the "renew" element continuously looks into possible renewable energy sources such as solar (see Environmental Sustainability and New Technology chapter). Energy such as solar lights, the "Miraah" solar steam project, the Mina Al Fahal solar car park and the recently announced Amin 100 MW solar IPP project.

Gas Flaring

PDO is a signatory of the World Bank initiative to end routine flaring by 2030, and we are working hard to meet the target well before the deadline.

We focus on both routine and non-routine flaring (the latter comprises more than 70% of the overall total) to ensure the

GREENHOUSE GAS INTENSITY RATIO (TONNE OF CO₂ EQUIVALENT/TONNE OF HC)





achievement of flare reduction in line with our aspiration. As a result, on an annual basis, all PDO assets identify flare reduction projects to reduce flaring.

Last year, PDO developed and implemented a detailed gas flaring roadmap to address flaring challenges within the organisation. This roadmap focuses on reduction of non-routine flaring, implementation of flaring reduction projects and deployment of technological solutions. A number of activities have been accomplished as part of its implementation.

These include the establishment of Enhanced Problem Solving teams to study “big hit” flaring events using causal learning methodology, a rotating equipment reliability improvement initiative, proactive technical monitoring and preventive maintenance optimisation studies on “bad actor” equipment. We are currently engaging with third party contractors to propose and implement gas-to-power new technology solutions to reduce or mitigate some or all of the flares.

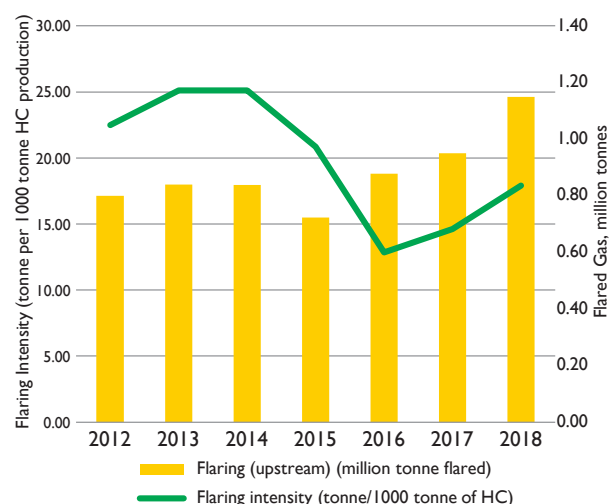
In PDO, all non-routine flaring activities are now managed by a Flaring ALARP (as low as reasonably practicable) and Waiver Tool to evaluate each flaring scenario on an economic and environmental basis.

The successful trial of micro-turbine technology at Anzauz to convert gas into electricity to power facilities could pave the way for the recovery of some 500,000 cubic metres of flare gas a day if fully deployed across Block 6.

Additionally, we are working on a flare monetisation project for all PDO routine flares. In terms of non-routine flare reduction, and as part of operational excellence, the Company has added flare elements in the EEST for eight operational facilities, ensuring appropriate and timely operator action in the case of excessive flaring.

In 2018, PDO flared 17.91 tonnes of gas for every 1,000 tonnes of hydrocarbon produced. This 22% increase on 2017 was mainly due to equipment failures in some fields.

FLARING PERFORMANCE 2018





Waste

We have made a determined effort to reduce our environmental footprint while boosting In-Country Value.

Our local contractor Tradebe began its work in 2016 to deal with five main waste streams: naturally occurring radioactive material (NORM); contaminated soil; oil-based mud (OBM) cuttings; oily sludge and chemical waste.

The firm, which has Omanised all field-operating and semi-skilled jobs, has made great progress. For example, it has exceeded its target for decontaminating NORM, so far managing to treat more than 50,000 tubular items, such as pipes, and around 4,500 well accessories.

There was a significant improvement in waste management in comparison to 2017. In terms of non-hazardous waste, around 1,600 tonnes were recycled this year, including wood, plastic, metal and cartons.

The handling of hazardous waste was also substantially expanded. For instance, average monthly OBM cuttings treatment increased 136% to 4,341 m³ from 1,837 m³ in 2017 and the volume of treated hydrocarbon-contaminated soil increased 204% from 51,721 m³ in 2017 to 157,315 m³ in 2018.

Furthermore, the successful effort to reduce the overall volume of oily sludge through better oil/water separation at source resulted in an overall oily sludge reduction delivered

to the waste yard. In total, 21,603 m³ (136,000 barrels) of crude oil (excluding Nimr) was recovered from oily sludge.

With respect to the reuse and recycling of hazardous waste, around 65,200 tonnes have been recycled by Omani SMEs, such as Arab Lead, which recycles lead batteries.

Collaboration continued with a number of external parties to further improve waste management in PDO including:

- A waste-to-energy feasibility study in co-ordination with Oman Environmental Services Holding Company, Be'ah
- The signing of a Memorandum of Understanding with the United Nations Environment Programme to co-operate on environmental issues
- A waste disposal workshop on NORM in co-ordination with the Ministry of Environment and Climate Affairs (MECA), the Ministry of Foreign Affairs, Be'ah and other oil and gas operators
- A research project with Sultan Qaboos University on waste reuse opportunities.

Environmental Projects In 2018

As part of our five-year Environmental Strategy and Action Plan developed in 2015 (a key enabler to achieve the overall corporate objectives of sustainable growth, operational excellence and meeting sustainability commitments) a number of key projects were launched or accomplished last year:

Single-Use Plastic Campaign

PDO joined the global initiative to eliminate the consumption of single-use plastic as part of our environmental campaign, "Estidama" which aims to:

- Promote sustainable thinking about natural resources
- Increase environmental awareness at all levels
- Encourage waste reduction at source.

A taskforce was established and MECA and the Environment Society of Oman were engaged to identify relevant best practice and options.



Plastic Type*	Plastic Cups (PS)	Plastic Bottles (PET)	Plastic Bags (LDPE)	Single use Cutlery (HDPE)
Recommended option to manage plastic waste at PDO	Eliminate	Recycle	Reduce/Reuse	Eliminate
Main reasons for the selection	Non-reusable due to health impacts and it is economically feasible to be recycled	PDO stopped ordering and bottles brought in from outside will be recycled	Reusable bags are encouraged	The use of reusable cutlery is recommended

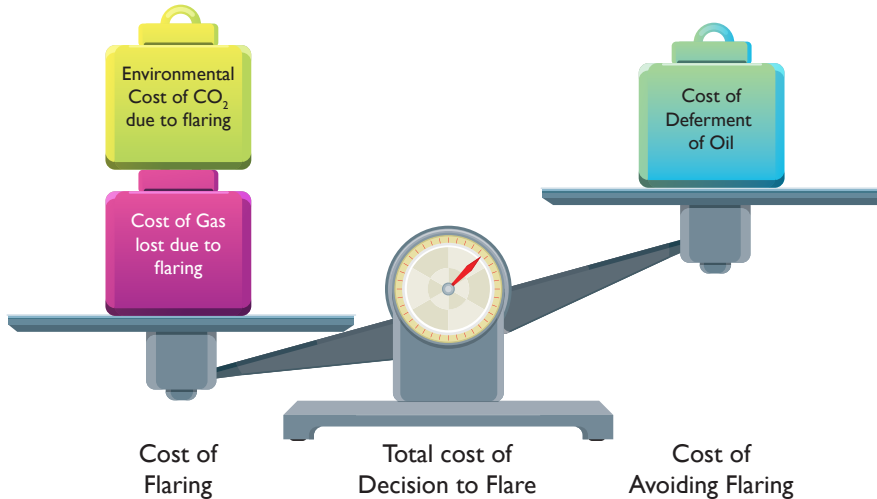
*PS= Polystyrene, PET= Polyethylene Terephthalate, LDPE= Low-Density Polyethylene, HDPE= High-Density Polyethylene

To ensure an effective and sustainable transition, the team agreed on the following:

- Provide reusable water bottles to PDO staff
- Introduce water-filling stations across Interior camps
- Establish PET water bottle recycling plants in co-ordination with an Omani SME
- Conduct single-use plastic awareness sessions across PDO.



Evaluation of the flaring scenarios on an economic and environmental basis



Flaring Waiver and ALARP Demonstration Tool

To help combat operational flaring, PDO has developed an electronic system which enables management to make informed, value-led decisions on whether it is economically and/or environmentally preferable to flare during non-routine events, such as when plant operating conditions are upset or if equipment (e.g. compressors) are temporarily unavailable. The Flaring Waiver and ALARP Demonstration Tool evaluates each flaring scenario on a case-by-case basis to help determine when flaring should be reduced.

HSE In Contracts

HSE remains an integral part of the day-to-day business and PDO continues to promote it through the distinct and simple requirements of different contract phases. We recently adopted the global HSE management system ISO-45001 and have further simplified our HSE documentation to assist the contracting community.

To embed and sustain this HSE front line discipline in the future, PDO began a more exacting HSE competence framework for critical positions, such as Contract Holders, in 2018. This includes a review of the roles and responsibilities for HSE-

critical staff positions, a focus on coaching and mentoring for such roles, and a formal assessment programme to support the individuals.

Environmental Requirements Guide

In line with our strategy of simplifying and streamlining procedures, PDO, in co-operation with MECA, has developed a guide on environmental compliance conditions for our projects and facilities. The booklet contains clear, facility-specific, one-page requirements enabling operators and contractors to fully understand and comply with the environmental rules, regulations and laws for each installation.



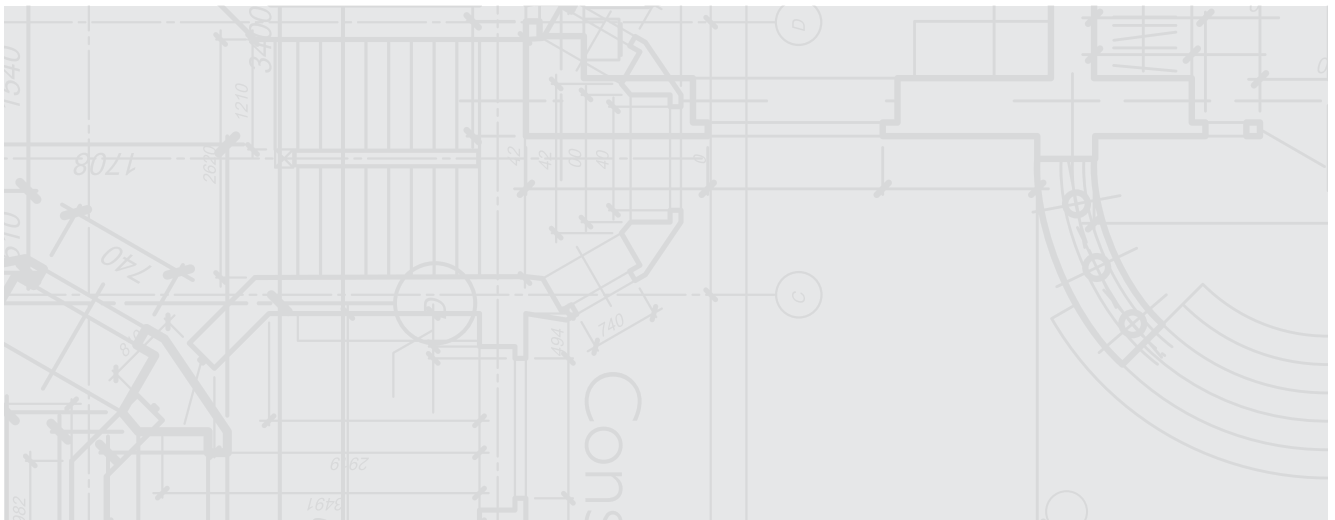
ENVIRONMENTAL DATA-PDO							
	2012	2013	2014	2015	2016*	2017	2018**
Greenhouse Gas (GHG) Emissions							
Direct total GHGs (million tonnes CO ₂ equivalent)	7.7	8.4	8.8	8.6	9.7	10.6	13.0
GHG intensity ratio (tonne of CO ₂ equivalent /tonne of hydrocarbon)	0.23	0.25	0.26	0.25	0.14	0.16	0.20
Flaring							
Flaring (upstream) (million tonnes flared)	0.80	0.84	0.84	0.72	0.88	0.95	1.15
Flaring intensity (tonne/1,000 tonne of hydrocarbon)	22.50	25.10	25.10	20.85	12.86	14.62	17.91
Energy Intensity							
Upstream (gigajoules per tonne production)	1.99	2.22	2.47	2.27	1.46	1.77	1.92
Acid Gas and VOC Emissions per Unit of HC Production							
Sulphur oxides (Sox) (tonnes per thousand tonnes)	2.70	2.97	3.07	2.39	1.03	1.58	1.92
Nitrogen oxides (Nox) (tonnes per thousand tonnes)	0.63	0.63	0.64	0.60	0.31	0.34	0.96
Volatile organic compounds (VOCs) (tonnes per thousand tonnes)	0.39	0.42	0.42	0.40	0.21	0.22	0.37
Spills and Discharges							
# of oil spills > 1 barrel (0.16m ³) per million tonnes of production [No/Mt production]	..	2.22	6.04	2.53	1.97	1.57	0.65
Quantity of oil spilled >1 barrel (0.16m ³) per million tonnes of production [t/Mt production]	..	6.11	15.82	9.54	32.00	3.46	0.46
Oil in effluents to surface environment (OIW to sea) thousand tonnes	0.003	0.017	0.007	0.009	0.010	0.008	0.022
Water							
Water consumed from desalination units (million cubic metres)	5.10	5.30	6.55	7.37	6.88	7.03	7.06
Produced water (1,000 m ³ /day)	619.80	665.30	714.99	769.62	803.97	855.52	908.95
Produced water used for injection activities (1,000 m ³ /day)	313.28	301.62	323.21	359.06	412.84	449.50	484.21
Produced water used for disposal activities (1,000 m ³ /day)	306.47	307.69	348.96	334.33	348.81	336.96	329.22
Waste Generation							
Hazardous (thousand tonnes)	142.4	184.7	230.4	209.7	225.9	222.00	383.69
Non-hazardous (thousand tonnes)	29.0	25.0	27.5	34.6	41.5	62.15	76.47
Total waste (thousand tonnes)	171.4	209.7	257.9	244.3	267.4	284.15	460.15

*From 2016, data includes gas asset performance, while earlier years only presented data from oil assets.

** In 2018, one of the reasons for an increase in GHG emissions was a change in the calculation methodology of fugitive emissions.

SAFETY DATA-PDO

	2012	2013	2014	2015	2016	2017	2018
Fatalities							
Total number	2	2	4	2	3	1	2
Employees	0	0	0	0	0	0	0
Contractors	2	2	4	2	3	1	2
Fatal accident rate (fatalities per 100 million working hours, both employees and contractors)	1.25	1.17	2.17	1.08	1.56	0.44	0.93
Injuries							
Total recordable case frequency (TRCF) (All injuries per million working hours, both employees and contractors)	1.17	0.98	0.97	0.98	0.98	0.72	0.71
Lost Time Injury Frequency (LTIF) (Lost time Injuries per million working hours, both employees and contractors)	0.29	0.26	0.32	0.28	0.22	0.20	0.15
Motor Vehicle Incidents (MVIs)							
Serious MVI Frequency (LTI, MTC, RWC and roll-over MVI incidents per million km driven)	0.16	0.15	0.16	0.11	0.12	0.07	0.06
Process Safety							
Tier-I incidents	11	13	22	11	8	13	3
Exposure							
Million manhours worked	160	170.5	184.0	184.9	196.3	224.9	215.8
Million kilometres driven	252	251.1	262.2	278.2	300.5	314.1	314.4
Illnesses							
Total Recordable Occupational Illness Frequency (TROIF) (Illnesses per million working hours, employee only)	1.7	0.17	0.07	0.13	0.13	0.06	0.57



Global Reporting Initiative Content Index

The report is 'In Accordance' with the GRI Standards – Core Option.

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
Strategy and Analysis				
I02-14	Statement from senior decision-maker Key impacts, risk and opportunities	Statement of continuing support	4, 12	-
I02-15			22, 23	-
Organisational Profile				
I02-1	Organisation's name	No specific COP requirement	6	Ministry of Oil and Gas
I02-2	Activities, brands, products and services	“	6-8	Ministry of Oil and Gas
I02-3	Location of the organisation's HQ	“	About This Report	Ministry of Oil and Gas
I02-4	Countries of major operation	“	6-8	Ministry of Oil and Gas
I02-5	Nature of ownership and legal form	“	6-8	Ministry of Oil and Gas, Ministry of Finance
I02-6	Markets served	“	29	Ministry of Oil and Gas, Ministry of Finance
I02-7	Scale of organisation	“	6-8	Ministry of Finance, Ministry of Oil and Gas
I02-8	Total number of employees	“	9	Ministry of Manpower
I02-41	Percentage of total employees covered by collective bargaining agreements	“	51	Ministry of Manpower
I02-9	Organisation's supply chain	“		-
I02-10	Significant changes during the reporting period	“	4, 12-17	-
I02-11	Implementation of the precautionary approach	Principle 7	53, 55, 65	Ministry of Environment and Climate Affairs
I02-12	Endorsement of external economic, environmental and social charters and initiatives	Principles 1-10	About This Report, 11, 65	ISO 14001:2004 ISO 55001:2014
I02-13	Memberships in national/ international associations	No specific COP requirement	13	-
Identified Material Aspects And Boundaries				
I02-45	Entries included in the organisation's consolidated financial statements	-	6-8	State Audit Institution, Ministry of Finance
I02-46	Process for defining the report content and the aspect boundaries	No specific COP requirement	18-19, 22-23, 81	-
I02-47	Material aspects identified in the process for defining report content	“	22-23	-
I03-1	Aspect boundary within the organisation	“	23	-
I03-2	Aspect boundary within the organisation	“	23	-

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
I02-48	Effect and reasons of any restatements of information provided in previous reports	“	10-11	-
I02-49	Significant changes from previous reporting periods in the scope and aspect boundaries	“	There are no specific changes	-
Stakeholder Engagement				
I02-40	Organisation's stakeholder groups	“	18-19, 22	-
I02-42	Identification and selection of stakeholders	“	18-19, 22	-
I02-43	Approach to stakeholder engagement, and organisational response		18-19, 22	-
I02-44	Key topics/concerns raised through stakeholder engagement, and organisational response		22	-
Report Profile				
I02-50	Reporting period	Sphere of influence	About This Report	-
I02-51	Date of most recent previous report	“	About This Report	-
I02-52	Reporting cycle	“	About This Report	-
I02-53	Contact point for questions regarding the report	“	About This Report	-
I02-54 I02-55	Chosen “in accordance” option including reference to the GRI content index and the external assurance report	“	About This Report, 72	-
I02-56	Organisation's policy and practice with regard to seeking external assurance	“	About This Report	-
Governance				
I02-18	Organisation's governance structure	Principle 10	8	-
Ethics and Integrity				
I02-16	Organisation's codes of conduct and codes of ethics	Principle 10	8-11	-
Disclosures on Management Approach				
I03-1 I03-2 I03-3	Generic Disclosures on Management Approach	Principle 7	6-11, 18-23	ISO 14001:2004 ISO 55001:2014
Indicators by Aspects				
CATEGORY: ECONOMIC				
Economic Performance				
201-1	Direct economic value generated and distributed	No specific COP requirement	43-47	Ministry of Finance

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
201-2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	Principle 7	59-63, 65-69	Ministry of Finance
201-3	Coverage of the organisation's defined benefit plan obligations	No specific COP requirement	51	Ministry of Finance
201-4	Financial assistance received from the government	No specific COP requirement	11	Ministry of Finance
Market Presence				
202-2	Proportion of senior management hired from local community at significant locations of operation	No specific COP requirement	8, 49	Ministry of Manpower
Indirect Economic Impacts				
203-1	Development of impact of infrastructure investments and services supported	No specific COP requirement	17, 20, 43-44, 54	Ministry of Social Development
203-2	Significant indirect economic impacts	No specific COP requirement	54-55	Ministry of Social Development
Procurement Practices				
204-1	Proportion of spending on local suppliers	No specific COP requirement	43-47	Ministry of Oil and Gas, Ministry of Manpower, Ministry of Finance
CATEGORY: ENVIRONMENTAL				
301-1	Materials used by weight or volume	Principles 7,8,9	60-61, 65, 70	Ministry of Environment and Climate Affairs
Energy				
302-1	Energy consumption within the organisation	Principles 8,9	59, 65, 70	-
302-3	Energy intensity	Principles 8,9	59, 65, 70	-
302-4	Reduction of energy consumption	Principles 8,9	14-15, 59-62, 65-66	Ministry of Environment and Climate Affairs
Water				
303-1	Total water withdrawal by source	Principles 8, 9	61, 70	Ministry of Environment and Climate Affairs
303-2	Water sources significantly affected by withdrawal of water	Principles 7, 8,9	61, 70	-
303-3	Percentage and total volume of water recycled and reused	Principles 7, 8, 9		

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
Biodiversity				
304-3	Habitats protected or restored	Principles 7, 8, 9	20, 61, 63	Ministry of Environment and Climate Affairs
Emissions				
305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	Principles 7, 8, 9	65, 70	Ministry of Environment and Climate Affairs
305-2	Energy indirect GHG emissions (Scope 2)	Principles 7, 8, 9	65, 70	-
305-3	Other indirect GHG emissions (Scope 3)	Principles 7, 8, 9	65, 70	-
305-4	GHG emissions intensity	Principles 7, 8, 9	65, 70	-
305-5	Reduction of GHG emissions	Principles 7, 8, 9	65, 70	-
305-6	Emissions of ozone-depleting substances (ODS)	Principles 7, 8, 9	70	-
305-7	NO _x , SO _x and other significant area emissions	Principles 7, 8, 9	70	-
Effluents and waste				
306-1	Total water discharge by quality and destination	Principles 7, 8, 9	70	-
306-3	Total number and volume of significant spills	Principles 7, 8, 9	65, 70	-
Products and Services				
301-3	Percentage of products sold and their packaging materials that are reclaimed by category	No specific COP requirement	Not applicable	-
Compliance				
307-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Principles 7, 8, 9	Not applicable	-
Supplier Environmental Assessment				
308-1	Percentage of new suppliers that were screened using environmental criteria	Principles 7, 8, 9	47	-
Environmental Grievance Mechanism				
103-2	Number of grievances about environmental impacts, addressed and resolved through formal grievance mechanisms	Principles 7, 8, 9	20	Ministry of Environment and Climate Affairs

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
CATEGORY: SOCIAL				
LABOUR PRACTICES AND DECENT WORK				
401-1	Total number of and rates of new employee hires and employee turnover by age group, gender and region	No specific COP requirement	49	Ministry of Manpower
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	"	51	Ministry of Manpower, Ministry of Finance, Ministry of Oil and Gas
401-3	Return to work and retention rates after parental leave, by gender	"	51	-
Labour/Management Relations				
402-1	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	"	51	Ministry of Manpower
Occupational Health and Safety				
403-2	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities	"	13, 71	-
403-3	HSE topics covered in formal agreements with trade unions	"	49	-
Training and Education				
404-1	Average hours of training per year per employee by gender, and by employee category	"	51	-
404-2	Programmes for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	"	51	-
404-3	Percentage of employees receiving regular performance and career development reviews, by gender and employee category	"	51	-
Diversity and Equal Opportunity				
405-1	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership and other diversity indicators	No specific COP requirement	5, 49	-

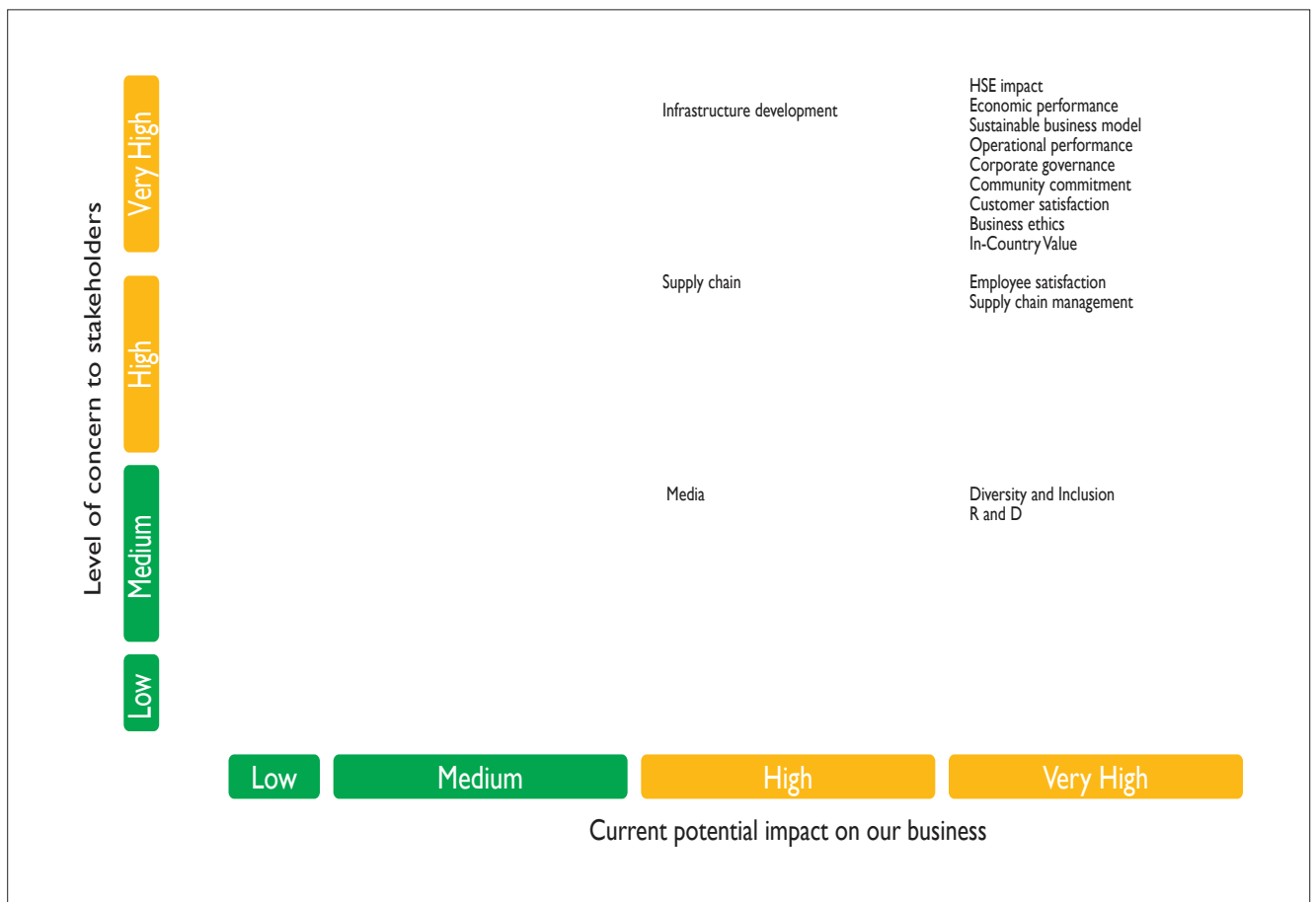
General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
Equal Remuneration for Women and Men				
405-2	Ratio of basic salary and remuneration of women to men by employee category	Principle 6	51	-
Supplier Social Assessment				
414-1	Percentage of new suppliers that were screened using labour practices criteria	Principles 3,4,5,6	47	-
Labour Practices Grievance Mechanisms				
103-2	Number of grievances about labour practices filed, addressed, and resolved through formal grievance mechanisms	3,4,5,6	None reported	-
HUMAN RIGHTS				
412-2	Total hours of employee training on human rights policies and procedures concerning aspects of human rights that are relevant to operations, including percentage of employees trained	No specific COP requirement	50	-
Non-Discrimination				
406-1	Total number of incidents of discrimination and corrective actions taken	Principle 6	50	-
Freedom of Association and Collective Bargaining				
407-1	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	Principles 3,4,5,6	56	-
Child Labour				
408-1	Operations and suppliers identified as having significant risk for incidents of child labour; and measures taken to contribute to the effective abolition of child labour	Principles 3,4,5,6	57	Royal Oman Police, Ministry of Manpower
Forced or Compulsory Labour				
409-1	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour; and measures to contribute to the elimination of all forms of forced or compulsory labour	Principles 3,4,5,6	57	Royal Oman Police, Ministry of Manpower
Security Practices				
410-1	Percentage of security personnel trained in the organisation's human rights policies or procedures that are relevant to operations	Principles 3,4,5,6	Not available will endeavour to include in future reporting cycles as the next phase of Project Prism (p. 56) progresses	-

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
Indigenous Rights				
411-1	Total number of incidents of violations involving rights of indigenous peoples and actions taken	Principles 1-2	Not applicable. There were no such incidents	Royal Oman Police
Human Rights Assessment				
412-1	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	Principles 1-2	56	-
Supplier Social Assessment				
414-1	Percentage of new suppliers that were screened using human rights criteria	Principles 1,2	Not available. Will endeavour to include in future reporting cycles as the next phase of Project Prism (p. 56) progresses	-
Human Rights Grievance Mechanisms				
103-2	Number of grievances filed, addressed and resolved through formal grievance mechanisms	Principles 1,2	Not applicable. There were no such instances	-
SOCIETY				
Local Communities				
413-1	Percentage of operations implemented with local community engagement, impact assessments and development programmes	Principle 1	20	-
413-2	Operations with significant actual and potential negative impacts on local communities	Principle 1	Not applicable. There were no such instances	-
Anti-Corruption				
205-1	Total number and percentage of operations assessed for risks related to corruption and significant risks identified	Principle 10	10,11	-
205-2	Communication and training on anti-corruption policies and procedures	Principle 10	10	-
205-3	Confirmed incidents of corruption and actions taken	Principle 10	10,11	State Audit Institution
Public Policy				
415-1	Total value of political contributions by country and recipient/beneficiary	No specific COP requirement	Not applicable. PDO does not make political donations	-

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
Anti-Competitive Behaviour				
206-1	Total number of legal actions for anti-competitive behaviour; anti-trust, and monopoly practices and their outcomes	Principle 10	Not applicable. PDO is not engaged in anti-competitive behaviour; anti-trust or monopoly practices	-
Compliance				
419-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	Principle 10	Not applicable. There were no such instances	State Audit Institution
Supplier Assessment for Impacts on Society				
414-1	Percentage of new suppliers that were screened using criteria for impacts on society	No specific COP requirement	All PDO suppliers are screened for HSE	-
Grievance Mechanisms for Impacts on Society				
103-2	Number of grievances about impacts on society filed, address and resolved through formal grievance mechanisms	Principles 1-10	Not applicable. There were no such instances	-
PRODUCT RESPONSIBILITY				
Customer Health and Safety				
417-1	Type of product and service information required by the organisation's procedures for product and service information and labelling	No specific COP requirement	Not available. Will endeavour to have this information by next reporting cycle	PDO is subject to Omani law
Marketing Communications				
102-2	Sale of banned or disputed products	No specific COP requirement	Not applicable. PDO does not sell banned or disputed products	PDO is subject to Omani law
417-3	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications	"	Not applicable. There were no such incidents of non-compliance with regulations and voluntary codes concerning marketing communications	-
Customer Privacy				
418-1	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	"	Not applicable. There were no substantiated complaints regarding breaches of customer privacy and losses of customer data	PDO is subject to Omani law

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
Compliance				
419-1	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	“	Not applicable. There were no such instances	PDO is subject to Omani law
CATEGORY: ECONOMIC				
Reserves				
OG1	Volume and type of estimated proved reserves and production	Principles 7, 8, 9	12, 25, 29	Ministry of Oil and Gas
Energy				
OG3	Total amount of renewable energy generated by source	Principles 7, 8, 9	59	-
Ecosystem Services Including Biodiversity				
OG4	Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored	Principles 7, 8, 9	All significant operating sites have been subjected to rigorous environmental impact assessments	PDO fully co-operates with the Ministry of Environment and Climate Affairs
Effluents and Waste				
OG5	Volume and disposal of formation or produced water	Principles 7, 8, 9	61, 70	ISO 14001: 2004
OG6	Volume of flared and vented hydrocarbon	Principles 7, 8, 9	65, 70	ISO 14001: 2004
OG7	Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal	Principles 7,8,9	67, 70	ISO 14001: 2004
Indigenous Rights				
OG9	Operations where indigenous communities are present or affected by activities and where specific engagement strategies are in place	Principle 1	20	Royal Oman Police
Local Communities				
OG10	Number and description of significant disputes with local communities and indigenous peoples	Principle 1	Not applicable. There were no such instances	-

General Standard Disclosures	Definition	UNGC Principle	Page	External Assurance
Involuntary Resettlement				
OG12	Operations where involuntary resettlement took place, the number of households resettled in each and how their livelihoods were affected in the process	Principle 7	Not applicable. There were no such instances	-
Asset Integrity and Process Safety				
OG13	Number of process safety events, by business activity	Principle 7	33, 70	Ministry of Environment and Climate Affairs
PRODUCT RESPONSIBILITY				
Fossil Fuel Substitutes				
OG14	Volume of biofuels produced and purchased meeting sustainability criteria	Principle 7	Not applicable. PDO does not produce biofuels for use in its operations or for third parties	ISO 14001-2004



Visual representation of prioritisation of aspects (G4-I 8)

Awards and Certifications in 2018



Award Organiser	Award Category	Award Title
Shell Upstream International Impact Awards	Safety Leadership and the Environment Category	Pit-Less Drilling System
Shell Upstream International Impact Awards	Effective People Category	PDO Insourcing Project
Shell Upstream International Impact Awards	Safety Leadership and the Environment Category	Ras Al Hamra Development Project HSE Training Centre
Shell Upstream International Impact Awards	Competitive Portfolio Category	Contract Optimisation Reviews
Shell Upstream International Impact Awards	Effective People Category	Diversity and Inclusion Mission in PDO
Shell Upstream International Impact Awards	Fit for the Future Category	Seismic Acquisition: Ultra High Productivity and PreSDM Delivery
Oman Society for Petroleum Services (OPAL) Awards	Best Practice in Health, Safety and Environment Category	6 MWp Solar Power Car Park Project
Oman Society for Petroleum Services (OPAL) Awards	Best Practice in the Small Business Development Category	Banat Oman Programme
Oman Society for Petroleum Services (OPAL) Awards	Best Practice in Health, Safety and Environment Category	Ihtimam Behaviour-based Safety (BBS) System
Al Roya Economic Awards	Best Private Sector Project Award	Miraah Solar Steam Project
Oil and Gas Review's Excellence in Energy Awards	Best Sustainable Energy Project Award	Miraah Solar Steam Project
Gas and LNG Middle East Summit Awards	Gas Executive of the Year Award	Raoul Restucci
Oil and Gas Review's Excellence in Energy Awards	Energy Person of the Year Award	Amran Al Marhubi
Alam al-Iktisaad Wal A'mal (AIWA) Awards	Inspiring Leadership in In-Country Value (ICV) Award	Abdul Amir Al Ajmi
American Association of Petroleum Geologists (AAPG)	Women in Geoscience Award	Intisaar Al Kindy