

WPC explore

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EXPLORE



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Q&A with
Ahmed Ali
Al Sayegh,
CEO of
Dolphin
Energy



INDUSTRY
Q&A with Hamad
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General Manager
of QVC and Board
Member of the Gulf
Petrochemicals and
Chemicals Association



QATAR

Pre and
post Tours,
Social
Tours and
Technical
Tours



AROUND

The
Maldives
– Pearls of
the Indian
Ocean

Online
Registration
now open at
www.20wpc.com

First venue tour scheduled

The much-anticipated first viewing of the 20th WPC venue, the brand new Qatar National Convention Centre, will take place in late October 2011.

Key stakeholders such as 20th WPC Sponsors, Official Partners and Exhibitors, as well as senior local business executives, representatives from the Embassies in Qatar, and the media, will receive a briefing and conducted tour of the venue's facilities arranged by the Qatar Organizing Committee led by Chairman Issa Al Ghanim.

The briefing and tour will provide the latest news and developments from the Congress as well as give most attendees their first glimpse of the finished venue and the chance to see how it will serve the congress and all its attendees.



Qatar Organizing Committee Chairman
Issa Al Ghanim.

About the 20th World Petroleum Congress



Qatar National Convention Centre

Every three years the World Petroleum Council organises the World Petroleum Congress (WPC) hosted by one of its member countries. This triennial five day Congress is often described as the "Olympics" of the petroleum industry and covers all aspects from technological advances in upstream and downstream operations to the role of natural gas, renewable and alternative energy, management of the industry and its social, economic and environmental impact.

International and national oil and gas companies, outside stakeholders such as governments, other industry sectors, NGOs and international institutions will all come together to join in the dialogue. The 20th WPC exhibition, held alongside the Congress in the same venue, will feature more than 500 exhibitors spread over an area of 35,000 sq. m.

20th WPC Attendance (anticipated)

- Total number of delegates: 4,500
- CEOs Registered: 600
- Ministers Registered: 50
- Accredited Press: 600
- Registered Students and Young Professionals: 700
- Speakers and Presenters: 550
- Sponsors and Official Partners: 45
- Exhibitors: 600

EXPLORE INDUSTRY

WIND & SOLAR PROJECTS IN THE MIDDLE EAST



The Middle East is expected to be a significant source of renewable energy and investment is growing sharply. In 2009, the Middle East-North Africa (MENA) region invested US\$1.67 billion in clean energy projects, more than double the US\$745 million invested in 2007. Solar and wind projects are expected to be particularly important.

The region's flagship project is undoubtedly the Desertec Industrial Initiative, a multi-national organization comprising 13 corporations seeking to construct an immense sustainable energy grid throughout the region.

While Desertec's backers claim that a 90,000 square kilometre desert-based concentrated solar power grid could theoretically produce more than 90% of the world's current electricity demand, the initial goal is to supply 15% of all electrical demand to the European Union member states by 2050. Desertec carries a US\$550 billion price tag and initial power delivery by 2020.

Renewable energy is increasingly viewed as the inevitable future source of the world's rising power requirements. Oil majors such as BP have forecast that from 2030, non-fossil fuels will be major sources of supply growth, although they will remain a comparatively small part of total global energy output.

By then, solar, wind, geothermal and bio-fuel energy are expected to increase to 18% of total energy growth from 5% in 2010 according to the company's forecast document, BP Energy Outlook 2030, published in January 2011.

One major obstacle to the growth of renewable energy projects is financing, particularly as the infrastructure, materials and technologies involved in these projects require large initial capitalization. "Access to affordable energy is critical to economic progress, especially in the context of emerging and developing economies," Nasser Saidi, chief economist of the Dubai International Financial Centre Authority told a recent clean energy conference in Dubai.

Another issue is government policy. Governments are promoting renewable energy development through loan guarantee programmes, grants, and tax breaks. Many countries have adopted additional economic measures that incentivize renewable energy projects. However, experts warn that the ad hoc nature of many programmes can frustrate investors.

"The hodgepodge nature of these programs—authorized by different pieces of legislation, administered under an array of regulatory regimes and subject to varying requirements and deadlines—presents a serious challenge to those interested in seeking financial assistance for renewable projects," says Todd Reinstein, a Washington partner with Pepper Hamilton, a law firm with many renewable-energy clients.

Observers praise Desertec as useful disruptive technology, but stress that is too early to predict results. "The basic truth is that while Desertec is a noble effort, it will not succeed unless it can represent a better financial alternative to present power generation," Conor Colwell, an analyst with GaveKal Dragonomics in Hong Kong, noted in a recent assessment.

Wind power

Global wind-power capacity rose 32% to 159 gigawatts (GW) in 2009, according to the Bonn-based World Wind Energy Association, with expansion in China accounting for a third of the growth.

Suzlon Energy, one of the world's largest manufacturers of wind turbines, expects the MENA region to be one of its major markets. The Middle East could generate 10-20GW of wind power in the next 20 years, according to research by Suzlon.

The Pune, India-based company says Egypt, Iran and Morocco—the windiest countries—show the most potential. Last year, Egypt said it would build a 200 megawatt (MW) wind farm near Suez as part of a plan to generate 20% of the country's energy needs from renewable sources by 2020.

Saudi Arabia and Oman have also announced ambitious wind power programmes, in part to offset the use of gas and other fossil fuels, and also to take advantage of the prevailing winds in their countries.

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EXPLORE INDUSTRY

wind & solar projects in the middle east continued...

Solar power

Global solar power output, meanwhile, rose 44% to 20GW in 2009, according to the Brussels-based European Photovoltaic Industry Association.

With its reliable supply of available sunlight, the MENA region is once again poised to take a leading role in the development of integrated solar power.

One major project is 'the Shams', 1 solar power station in the Madinat Zayed area of Abu Dhabi. The UAE emirate has set a target of 7% of electricity to be generated from renewable energy facilities by 2020. Expected to be operational by 2012, the 100MW Shams 1 will be the largest parabolic trough power generation facility in the world.

Solar energy is turning up in surprising places, such as in powering a state-of-the-art brackish water desalination plant being built in the West Bank.

The region is also emerging as an important research and development and manufacturing hub. Last year, Qatar announced a US\$500 million solar energy programme that included the creation of a joint venture company to produce solar-panel-grade polysilicon.

Even Bahrain is making cautious inroads—with a programme of solar-powered street-lighting unconnected to the national grid. Last year, the government announced it hoped to integrate small-scale solar and wind projects into its grid by 2013.

By George Russell

INVESTING PETRODOLLARS IN SUSTAINABLE PROJECTS



Norway has earmarked an unspecified proportion of the US\$400 billion-plus Government Pension Fund (GPF) for investment in environmental projects, including renewable energy. Proponents of clean energy alternatives would like to see more hydrocarbon-based sovereign wealth funds invest in non-fossil fuels.

Investment in renewable energy by sovereign wealth funds is not new. But until recently, most of the investment was by funds in non-oil-producing countries such as Singapore, Israel or New Zealand.

Recently, the Beijing-controlled sovereign-wealth fund China Investment Corporation announced it would invest as much as US\$1.21 billion in two renewable-energy sector companies. Other investments have been made by the Abu Dhabi Investment Authority (ADIA), and sovereign wealth funds in Qatar and Colombia.

However, it's more usual for such funds to invest in oil majors. BP is said to be in talks with ADIA—the world's largest sovereign wealth fund—as well as those of Qatar, Kuwait, Saudi Arabia and Libya to secure investment to help it fend off potential takeover bids.

In 2008, Qatar and the United Kingdom established a £250 million fund to pay for development of technologies that help produce low-carbon-emitting energy. Since then, two other regional sovereign wealth funds—the Kuwait Investment Authority and the Libyan Investment Authority—have invested in renewable energy, such as a stake in the "green energy" unit of Enel, the largest electricity utility in Italy.

Of course, there are many interests competing for petrodollar funds. Former US President Bill Clinton, visiting Riyadh in January, called for sovereign wealth funds to set aside investment in small and medium-sized enterprises. One of the challenges for the region was to allocate its petrodollars to ensure they benefitted the poorest members of society, Clinton said.

Analysts see investments in renewable energy by oil-rich states as inevitable. "The oil industry will have to prepare for the eventual transition out of oil, and ultimately out of fossil fuels, into the more cutting-edge technology of renewable energy," says Fadel Gheit, managing director and senior analyst covering the oil and gas sector for the Oppenheimer & Co investment bank in New York.

The major hurdle to sovereign wealth fund investment in renewable energy is the lack of reliably profitable returns. While green energy may burnish the image of funds largely

soaked in oil and gas revenues, there's no evidence that renewable can outperform other asset classes. "We're not going to do this as a subsidy," Jin Liqun, chairman of the board of supervisors at China Investment Corporation, told a conference in 2010. "We do this only when we see there is a profit to be made."

In addition, some sovereign wealth funds, such as China's and those of several Middle East nations, have encountered resistance in some countries when they seek to invest in sensitive industries such as energy. They are sometimes suspected of having political objectives in making their investments.

On the other hand, critics are concerned that some sovereign wealth funds are poorly managed or not

adequately overseen. Even Norway's widely admired GPF lost billions of US dollars in stock market investments during the worldwide financial crisis that began in 2008. A report by the European Central Bank in 2009 noted that oil exporters mostly spent their oil revenues prior to the start of the crisis. As a consequence, most are not prepared for oil price shocks or leaner budgets.

Some oil-revenue funds have been mismanaged through corruption, such as those of several African oil producers, or lack of competence, such as those of Venezuela and the US state of Texas. The Canadian province of Alberta squandered much of its shale and gas revenues amid volatile pricing through unrealistically low taxes and the lack of a rigorous stabilization fund.

By George Russell

Q&A with Ahmed Ali Al Sayegh, CEO of Dolphin Energy



"We will use WPC as a platform to network with our industry peers and highlight our own achievements in the four years we have been in operation"

Dolphin Energy, based in Abu Dhabi, is a joint venture 51% owned by the United Arab Emirates-owned Mubadala Development Company, with minority stakes held by France's Total SA and the USA-based Occidental Petroleum Corporation.

The US\$3.5 billion company is principally involved with a long-term energy project developing gas fields in Qatar and Oman to supply customers in the UAE. It is the first cross-border gas project in the Arab Gulf region.

Dolphin Energy came onstream in 2006 and began commercial production in July 2007. The company refines and processes the gas and transports it via a subsea pipeline across the Gulf. The entire Dolphin project, including wells, sea lines, the processing plant, export pipelines and the receiving facilities has made it one of the largest energy ventures ever undertaken in the Middle East. The company's most recent large-scale project is the 246-kilometre 'Taweelah-Fujairah' pipeline project, expected to begin operations by end-2011.

Ahmed Ali Al Sayegh is CEO of Dolphin Energy. He holds a bachelor's degree in economics from Lewis & Clark College, Oregon, and started his career at the Abu Dhabi National Oil Corporation where he rose to the post of finance director. He is also on the board of the UAE Offsets Group, deputy chairman of First Gulf Bank and Abu Dhabi Ship Building.

Q Why did Dolphin Energy choose to participate in the World Petroleum Congress?

A By participating in the World Petroleum Congress (WPC), we are afforded the opportunity to demonstrate support both for the Council and Qatar Petroleum who are closely involved with the organization of the Congress. In addition, we will use WPC as a platform to network with our industry peers and highlight our own achievements in the four years we have been in operation.

Q Why is it relevant that the next World Petroleum Congress be held in Doha?

A As one of the world's largest gas producers, Qatar has become a major energy supplier with LNG shipments exported around the globe. In my view, WPC's decision to hold the Congress in Doha reflects the country's emergence.

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EXPLORE INDUSTRY

Q&A with Ahmed Ali Al Sayegh continued...

While it provides another example of Qatar taking its place on the global stage, it also suggests the increasing importance of Qatari gas in helping meet global energy demand.

Q Qatar is an important part of Dolphin Energy's operations. How important is its investment in Qatar?

A It is very important. We are committed to the country for the long term, building relationships that will have a positive impact. For example, we continue to work very closely with Qatar Petroleum, which continues to be extremely supportive. Their guidance is critical to our continued success and we are keen to build on this relationship.

Q How do you see Dolphin Energy's place in Qatar society evolving?

A We continue to explore more opportunities to support the wider community and are in the process of finalizing a number of initiatives that will have a positive impact. In addition, we will continue to provide career opportunities to young, talented Qataris. We are actively engaging with them to bring them into the company where they can build meaningful careers with us.

Q Does Dolphin have a role to play in the Middle East as a region?

A As one of the largest ever energy-related initiatives in the Middle East, Dolphin is already meeting 30% of the UAE's energy requirements. We would like to supply more to the UAE and Oman. In turn this will help build our role in creating sustainable wealth, economic growth and employment opportunities for the citizens of the region.

Q What is the future for natural gas in the region?

A Natural gas is set to play a key role in this developing energy cluster and with 25-year long term gas sales agreements in place, Dolphin will play a crucial role in meeting the demand for natural gas in the long term and will be integral in driving the country's energy security.

Q What can Dolphin do to promote low-carbon fuel sources?

A I see Dolphin acting as a bridge between traditional sources of energy to a time when we will see the prevalence of new, sustainable sources of energy. By providing 2 billion standard cubic feet of natural gas per day, Dolphin is making a significant contribution to the development of a low-carbon economy in the UAE.

Q How do you see the global energy mix developing over the next decade?

A We will see a rise in the use of natural gas, particularly as it helps to minimize carbon emissions. The demand for natural gas can also be seen in the development of major pipeline initiatives such as Nabucco [the gas link from Georgia and Iraq to European consumer markets scheduled to begin construction in 2013] and the South Stream [the Black Sea pipeline] as well as the deepening venture into shale.

Q Can you explain Dolphin's recruitment policies?

A We are very active in our recruitment efforts, particularly in those that target young Emiratis and Qataris. We have specialist nationalization teams that are actively engaged, encouraging citizens to consider a career with Dolphin. We are also building relationships with key educational institutions, targeting young engineers and providing vocational opportunities that blend practical experience with their studies. This is working very well for us.

Q How safe are Dolphin's operations?

A I can only speak about our own safety record. Since we began our operations we have reached many important milestones. In 2010, our UAE operations registered more than 7 million man-hours without a lost time incident while our Qatar operations division registered more than 7.7 million man-hours without a lost time incident. Safety underscores every facet of our operation and our goals are simply stated – no accidents, no harm to people and no damage to the natural and social environment.

Q What is the company's environmental record?

A From a Dolphin Energy perspective, we have a proud environmental record, both in terms of ensuring we minimize environmental impacts offshore and onshore and by the environmental programs we have initiated and supported. Environmental sustainability is critical to our future success, which is why we have embedded this commitment into the business.

Q&A with Hamad Rashed Al Nuaimi,

General Manager of QVC and Board Member of the Gulf Petrochemicals and Chemicals Association



The Qatar Vinyl Company (QVC), established in 1997, is among a portfolio of value-added downstream industries that has flourished in Qatar over the past decade or so that includes Qatar Petrochemical Co., Qatar Chemical Co., Qatar Fertiliser Co., Qatar Steel Co. and Qatar National Cement Co.

QVC is based in Mesaieed Industrial City, about 40 kilometres south of Doha. The location means that QVC has access to port infrastructure with sufficient capacity to accommodate vessels up to 55,000 tonnes for the import of salt and the export of caustic soda, 1,2-Dichloroethane (ethylene dichloride, or EDC) and vinyl chloride monomer.

Hamad Rashed Al Nuaimi is the General Manager of QVC and a Board Member of the Gulf Petrochemicals and Chemicals Association.

Q What does the World Petroleum Congress mean to Qatar Vinyl Company in terms of opportunities?

A The World Petroleum Congress is the largest international gathering in the oil and gas industry. Representatives for governments, international companies in the hydrocarbon industry and suppliers of goods and services worldwide will come together to discuss the future of the industry. Both the conference and the exhibition will be an excellent opportunity for technological and supply / demand understanding and networking with companies and people for mutual benefit.

Q Why is it relevant that the next World Petroleum Congress will be held in Doha?

A Being the first country in the Middle East to host the World Petroleum Congress is an honour for Qatar. The Middle East has for several decades been a major exporter of oil and gas. Qatar's gas reserves are surpassed only by those of Russia and Iran and, in that respect, it gives Qatar a unique opportunity to present and discuss the current status and the future opportunities of the oil and gas development in the country.

“Being the first country in the Middle East to host the World Petroleum Congress is an honour for Qatar”

Q How would you like to build on Qatar Vinyl Company's present role in Qatar and the Middle East in general?

A QVC is the first and only vinyl company in Qatar. Production started 10 years ago based on environmentally friendly best available technology. By expanding QVC to become among the top 20 vinyl producers worldwide QVC will further contribute to growth in Qatar. QVC was one of the founding members when the Gulf Petrochemicals and Chemicals Association (GPCA) was established in 2006. The organization was formed to identify and promote the common interests of its members, via cooperation in, and sponsoring of projects and activities in, the petrochemical and chemical industry in the Gulf region.

Among the important areas on which it focused on are sustainable development practices and encouraging programmes aimed at human resources development and improved health, safety and environment performance through initiatives such as Responsible Care, or RC. From the early start, the GPCA has developed to be recognized worldwide, and last year's annual conference was able to attract more than 1,000 participants.

Q How will energy supply and demand evolve over the coming decade and how is Qatar Vinyl Company positioning itself?

A The production of vinyl and caustic soda requires a lot of energy and having the production unit in Qatar means that we are well-positioned to meet the demand in areas where demand for such products have the fastest growth rate. QVC is in the commodity petrochemicals industry sector and in that sector it is not about size or technology: it is about the costs. Globally 70% of integrated cash costs are hydrocarbon based.

India is an important market for QVC and, due to its proximity, has huge potential. We are producing chlorine, EDC and VCM, which are intermediates and raw materials for the PVC industry and the Indian per capita consumption is 1.25kg. Figures for Europe and US are 14 and 17kg respectively. We expect big PVC growth in India, especially for irrigation and construction. We also produce caustic soda, of which India has per capita usage of 1.85kg and China has per capita usage of 9.5kg. Due to the high energy costs, India will have to import a significant

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EXPLORE INDUSTRY

Q&A with Hamad Rashed Al Nuaimi continued...

portion of their demand growth of chlorine for PVC and caustic soda.

QVC is in a good position to take part in the growth of India and the rest of Asia due to low energy costs.

Q What is Qatar Vinyl Company's role in the future development of technologies to maximize production?

A We are not a technology holder, but we have devised our own methodologies by which we have removed the bottlenecks from our operations and maximized production. We keep in close contact with our technology suppliers to look at opportunities to improve on our production and participate in technology development.

Q What can Qatar Vinyl Company do to promote local engineering and other talent and alleviate any employment shortage in the industry?

- A** There are a number of steps we can take. They include:
- Working with QP and local universities to make sure the areas and quality of programs meet the requirements of the industry.
 - Promoting internships for engineering students to prepare them for the market and/or industry.
 - Promoting and sponsoring students to pursue engineering careers.
 - Developing engineers through the best work opportunities and development programmes to take on future managerial positions in the company or elsewhere in the industry.

Q What can the company do to attract young people into its ranks?

A At the organizational level, our systems and strategies are working together to create an environment in which the development and career progress of young people can be facilitated. These strategies are tightly aligned and linked to the overall corporate plan and strategic priorities of QVC.

We help young people to progress through their career by providing them with the training and development needed to reach their professional and own personal goals, from on-the-job training and training for recognized professional qualifications to personal development programmes, on-the-job monitoring and regular assessments.

At QVC, we'll give them every opportunity to stretch themselves and to take on increasing responsibility. The petrochemical industry is highly competitive so they can expect constant challenges in their work. In summary, most young people want the same things in their first career related jobs: interesting work, good benefits, job security and the chance for promotion.

These job characteristics describe a long-term relationship for young adults to develop satisfying careers within an organization. In consideration to that we make every effort to provide them with the rewards and benefits that will satisfy their professional and personal aspirations and needs.

Q How does Qatar Vinyl Company view the industry's overall environmental record and what can be done to improve that record?

A In striving to be among globally leading operators of vinyl facilities, the study of environmental aspects and subsequent control of environmental impacts is one of our top priorities. We believe in continual improvement and development of sustainable society. QVC has adopted ISO 14001 international standards as its guideline for its environmental management. As a result, today I am very pleased to inform you that QVC has an excellent environmental record throughout.

Quality and quantity of all emissions and effluents is regulated and monitored via renewable consent to operate and local regulations issued by the Ministry of the Environment (MoE) and reported on quarterly basis. QVC is also subject to frequent compliance audits and inspection by the MoE. The statistics from the last 10 years of operation show a high degree of compliance achieved without any major incident.

QVC has invested considerable efforts to develop an effective environmental management system in accordance with national and internationally recognized standards. In a recent fugitive emission study conducted by using specialized, top-notch vendors, QVC was rated best for emission rates and sources when benchmarked against other industries, including other vinyl facilities. QVC was reported to be the first industrial company in Qatar to have successfully completed this exercise.

While QVC has clearly accomplished a great deal over the past few years, we recognize that there is a cost associated with growth. The petrochemical industry has contributed significantly to the development of nations the world over, and as the demand for chemicals continues to rise, it has also led to increased amounts of waste, air emissions and water discharges. In addition, the global use of resources generates much in the way of greenhouse gas emissions.

At our end, we are consistently motivated to improve the environmental measures by taking into account the impact of our business beyond our fences. Hence, QVC, together with other GPCA members have recently committed towards the implementation of our Responsible Care (RC) programme. Through RC, we communicate and cooperate with others in ethical ways that increasingly benefit society, the economy and the environment. QVC has now been granted use of the RC logo with the GPCA's approval.

While seeking to protect, support and enhance human and natural resources QVC also understands the value of corporate social responsibility (CSR) to demonstrate its transparency and liability ahead of the customary domain of economic performance. CSR leads to sustainability, it encompasses tactics, policies and practices that aim to meet the business needs as well as facilitating solutions for current social and ecological challenges arising out of the advent of new petrochemical industries and expansions worldwide.

CONGRESS PROGRAMME

20th WPC Theme

Energy Solutions for All: Promoting Cooperation, Innovation and Investment

Over 600 expert speakers and industry leaders are already confirmed and will be sharing their knowledge and experience during the plenaries and the technical programme over the four days of the Congress.

The Congress is held under the patronage of HH Sheik Hamad bin Khalifa Al Thani, the Emir of the State of Qatar, who will be giving the Inaugural Address.

Ministers:

HE Dr. Mohamed Saleh Al-Sada, Qatar's Minister of Energy & Industry and HE Abdulla bin Hamad Al-Attiyah, Qatar's Deputy Prime Minister, will be joined by ministers from the following countries:

Algeria - Angola - Bahrain - Canada - Cuba - India - Iraq - Iran - Kazakhstan - Kuwait - Netherlands - Nigeria - Norway - Oman - Peru - Serbia - Russia - United Arab Emirates - United Kingdom - Uruguay - Venezuela

Keynote Speakers – include

- Nasser Al Jaidah, CEO, Qatar Petroleum International, Qatar
- Fu Chengyu, Chairman of China Petrochemical Corporation, China
- Noredine Cherouati, CEO, Sonatrach, Algeria
- David Constable, Chief Executive, Sasol, South Africa
- Robert Dudley, Group Chief Executive, BP, UK
- Abdulla Salem El-Badri, Secretary General, OPEC
- Andrew Gould, Chairman, Schlumberger, France
- Maria van der Hoeven, Executive Director, IEA
- Zhou Jiping, Vice Chairman and President, PetroChina, China
- Sam Laidlaw, CEO, Centrica, UK
- Helge Lund, CEO, Statoil, Norway
- Christophe de Margerie, CEO, Total, France
- James Mulva, CEO, Conoco Phillips, USA
- Gerhard Roiss, CEO, OMV, Austria
- Marvin Romanow, President and CEO, Nexen, Canada
- Peter Sands, Group CEO, Standard Chartered (SMBC), UK
- Klaus Schäfer, CEO, EON/Ruhrgas, Germany
- Jakob Thomasen, CEO, Maersk Oil, Denmark
- Rex Tillerson, CEO, ExxonMobil, USA
- Peter Voser, CEO, Royal Dutch Shell, Netherlands

Dewhurst Award Recipient

Guilherme de Oliveira Estrella, Director for Exploration & Production, Petrobras, Brazil.

Technical Programme Sessions

The technical programme of the 20th WPC is organized in 5 thematic blocks:

Block 1: Natural Gas: The Energy That Makes a Difference

Block 2: New Exploration and Production Frontiers and Technologies

Block 3: From the Well to the Consumer: Innovations in Refining, Transportation, Fuel Technology and Petrochemistry

Block 4: Complementary Energy Sources

Block 5: Sustainability Commitment: Environment, Social, Economy, Education and Governance

Following each morning's Plenary Sessions, participants can take part in the high-level Special Sessions, topical CEO-Level Round Table (RT) discussions, leading edge Best Practice Keynotes (BPK), or the technical Forums (F).

Special Sessions

The programme of the 20th World Petroleum Congress includes a number of high-level Special Sessions addressing topical subjects in the industry and providing a broad spectrum of perspectives on some of the key issues affecting the global oil and gas sector. Topics include:

- Business and Community: Partners for Shared Prosperity
- Technology and Innovations in Upstream
- Transparency and Anti-Corruption Initiatives in the Oil and Gas Industry
- Safety of E&P Operations in Deep Water
- Promoting Human Development through Innovative Social Responsibility Programmes
- WPC/IGU Gas Forum: Global Gas Supply and Demand
- Information Revolution: Software, Data Dissemination and Security
- Cooperation between IOCs, NOCs and Service Providers
- Technology and Innovations in Downstream
- Female Leadership in the Petroleum Industry
- Managing Operational Risk – A Senior Executive's Challenge.
- Youth in the Energy Future

Digital Poster Plaza

Forum posters can be viewed at the dedicated 20th WPC Digital Poster Plaza in the centre of the World Petroleum Exhibition, the largest showcase for the global oil and gas sector. The modern, high-tech format of the Poster Plaza will make it one of the most exciting stands in the exhibition area. The Technical Posters can be viewed at leisure on the dynamic, interactive information panels in one of the five sections on the stand corresponding to the five blocks of the technical programme.

EXPLORE QATAR

Pre and Post Tours with Qatar Airways Holidays

Delegates and their spouses already benefit from a 15% discount on their Qatar Airways international flights to Doha, and Qatar Airways is now also offering a variety of short holiday breaks that have been especially packaged and priced for congress and exhibition participants.

Qatar Airways understands how special your holiday is, so when it comes to planning, the airline is committed to making sure that every part of your well-earned break is organized to your satisfaction. Whether you want to relax at a luxury resort or go on an adventure holiday, Qatar Airways Holidays has packages to suit every taste and budget.



All packages are within four-and-a-half hours flying time from Doha and include The Maldives, The Seychelles, Istanbul, Sri Lanka, Jordan, Beirut, Kerala, Mumbai, Delhi, Bangalore, Dubai, Muscat and Abu Dhabi.

Visit the 20th World Petroleum Congress website www.20wpc.com for more details and information.

Social Tours

A choice of two leisure tours will be offered to registered delegates and their spouses during their visit to Qatar for the 20th World Petroleum Congress.

Arabian Beach and Desert Safari

Guests will depart in the morning for a journey to the coastline and desert dunes of Qatar.

On arrival you will be hosted in Bedouin style tents with all the comforts of a majlis and served an array of food and refreshments from the region. Activities and entertainment will introduce you to Arabian hospitality and culture. For the adventurous there will be water-sport facilities and activities.

This will also be your chance to ride a camel and meet with interesting Qatari people who can explain traditions from the past and those that are still observed today.

Endless desert and sea views are your constant reminder of the day away from the city which you will round-off with some dune-bashing in four-wheel-drive vehicles, before returning to Doha.



Doha Corniche and Museum of Islamic Art

Guests will meet at the Doha Corniche with the spectacular views of the bay and city skyline.

Sail across the bay in a traditional dhow with grand style hospitality and refreshments provided.

On arrival at the exclusive private quay for the Museum of Islamic Art you will be met and guided by the curators of the world's leading collection of Islamic art. The museum collection includes artworks dating from the 7th to the 19th century, representing the full scope of Islamic art from three continents. The building is an architectural masterpiece, designed by the internationally famous I M Pei.

You can end this visit by strolling along the Corniche to Souq Waqif, a centuries-old traditional market place, for authentic shopping, restaurants and coffee shops.



Reservations for Social Tours will open in October 2011 and the size of tours will be limited. All delegates and spouses who have registered at the time the tour reservations are opened will receive notification to reserve their tour of choice. Space is limited on the tours and will be confirmed on a first come, first served basis.

Technical Tours

20th World Petroleum Congress registered delegates will be able to visit Qatar's leading petrochemical, oil and gas facilities or enjoy a field trip to study the surface geology of Qatar.

Tour to Mesaieed Industrial City

Mesaieed Industrial City (MIC) is the gateway to southern Qatar and a major economic centre and contributor to the economy of Qatar. It is located approximately 40 km south of Doha and is the leading integrated industrial city in the country and the base of Qatar's petrochemicals sector.

MIC is the focus for the development of industrial projects in the fields of petrochemicals, chemical fertilizers, oil refining, natural gas derivatives and metallurgical industries (steel and aluminum), all serviced by a large hydrocarbon and commercial port. MIC is also home to Qatar's building and

construction materials industry and has recently established a new light industries area accommodating small and medium-sized support industries. MIC is also home to approximately 10,000 permanent residents who are provided with a safe and secure environment, a well maintained infrastructure, and full range of services such as modern housing, schools, social clubs, shopping facilities and a state-of-the-art medical centre making MIC a popular attraction for residents and investors. Please note that photography and videography are prohibited within the Mesaieed City limits.

Tour to Ras Laffan Industrial City and the world's largest LNG exporting facility

Ras Laffan Industrial City (RLC), a directorate of Qatar Petroleum, is a major success story for the State of Qatar and this massive industrial city hosts some of the world's leading suppliers of Liquefied Natural Gas (LNG), Gas to Liquids (GTL) and associated derivatives industries. The city is home to the world's largest LNG exporting facility. Strategically located at the centre of the Arabian Gulf and an ideal rendezvous point between the Far East and Europe on the international

maritime shipping route, energy products from RLC can reach markets all over the world in a timely fashion. RLC covers 295 sq km and is located about 80 km from Qatar's giant North Field, the world's largest single non-associated gas field with approximately 900 trillion cubic feet of proven reserves.

This technical tour offers an opportunity to witness these world-scale industries and the magnitude of operations at the port.

Field Excursion to modern sabkha carbonate evaporite environments along the southeastern coast of Qatar

The Holocene sabkhas of Qatar are one of the most famous analogues for arid climate carbonate-evaporite depositional systems and their diagenesis. This field trip offers an opportunity to examine coastal depositional systems and how they are modified by evaporitic groundwaters. The field areas are some of the best known sabkhas in Qatar. The trip will examine the depositional profile of a sabkha system, illustrate facies types, and demonstrate the sea-level history of Qatar during the Holocene. This trip is perfect for sedimentologists, geophysicists, geological/diagenesis modelers, reservoir engineers, and those interested in a beautiful day out, studying the surface geology of Qatar.

Tour to Dukhan Operations

Onshore Dukhan is a large oil and gas field extending over an area of approximately 80 km by 8 km and is located about 80 km to the west of Doha. It produces crude oil, associated gas, condensate and non-associated gas. Dukhan Field is comprised of three sectors from North to South - Khatiyah, Fahahil and Jaleha/ Diyab. Oil and gas are separated in four main degassing stations - Khatiyah North, Khatiyah Main, Fahahil Main and Jaleha. Satellite stations are Fahahil North and Fahahil South and Khatiyah South. The Diyab satellite station at the south end of the field has no process facilities and the total oil production is sent to Jaleha station for processing. Stabilized crude oil is transported through pipeline to Mesaieed port about 100 km east of Dukhan. This technical tour offers an opportunity to witness these world-scale industries and the magnitude of operations at the port.

Reservations for Technical Tours will open in October 2011 and the size of tours will be limited. All delegates who have already registered to attend 20th WPC when tour reservations are opened will receive notification to reserve their one free tour of choice. Space is limited on the tours and will be confirmed on a first-come-first-served basis.

Media Partners



ABOUT QATAR

Qatar is the leading LNG producer in the world and also one of the fastest growing nations. By diversifying its economy to complement its natural resources, Qatar has become a leading centre of excellence in the MENA region in areas such as education, sport, real estate and financial services.

Strategically located between the new economic powerhouses of the east and the consumer markets of the west, Qatar is a modern Arab state that seamlessly blends traditional hospitality with international standards.

Must Sees

Oryx Park in Shahaniya

See the majestic Arabian Oryx in its natural surroundings at Shahaniya Wildlife Preserve. Adjacent is Al Shaqab Stud Farm where you can see pure-bred Arab show and race horses. At the Qatar Equestrian Club, visitors can, if they are lucky, catch a traditional horse or camel race.



Museums

Qatar has two of the most striking and modern museums in the region: the Museum of Islamic Art which opened in 2010, and the under-construction National Museum of Qatar which will be complete in 2014 and will rival the Guggenheim in Bilbao as a freestanding architectural marvel. Much of the national art collection is housed at the Museum of Islamic Art in the Heart of Doha.

Forts and Archaeological sites

Qatar has many forts, each with their own story. Some are in ruins, while some are still very much intact and renovated to welcome visitors. The country also has archaeological sites such as Zubara where historians have found remnants of thriving civilizations that conducted trade with the rest of the world.



Souq Waqif & the Gold Souq

Now completely restored, Souq Waqif in the heart of Doha is the oldest commercial trading area in the city and continues to maintain its period influences, with numerous small stores selling collectibles and souvenirs to passers-by. Souq Waqif is also a popular place for dining with its numerous restaurants and coffee shops offering delicacies from around the world.

Just a stone's throw away from Souq Waqif is Doha's Gold Souq, which offers bargain prices on everything you see. From the most intricate gold jewellery to other fare, this thoroughfare is a perennial favourite among visitors.

Shopping

From the world's biggest fashion brands to things uniquely Arabian, there is something for everyone. Shop at your leisure in large themed malls or quaint boulevards scattered across the city of Doha.



The Pearl-Qatar



The Pearl-Qatar is an impressive man-made island designed to evoke the Italian Riviera. Paved pathways lead up to a large marina and contain upscale fashion and retail outlets, quaint cafes and restaurants.

Rest & Relaxation

Almost every large hotel has an enviable range of food and beverage options, as well as delectable spa treatments for those looking for the rejuvenation of body, mind and soul. All modern treatments and services are available.



Sea trips

Chartered vessels are available to take you out into the Arabian sea where you can do everything from open fishing to explore a handful of islands just off the coast of Qatar. Halul Island, on the way to nearby Bahrain, is a fisherman's paradise, whilst also being a great destination for shallow water diving.

Katara

Katara has been built to reflect a Qatari village of days gone by. Impressive buildings such as an amphitheatre, opera house, cinema and theatre, and museum exhibition are open for visitors. There are numerous restaurants and cafes offering a variety of cuisines such as Indian, Armenian and Egyptian to name just a few. Katara has something for everyone and will also be the venue for the 20th WPC Arabian Night on 6th December.



EXPLORE AROUND

Sponsored by: **QATAR AIRWAYS** القطرية

Maldives

Scattered across the equator in the middle of the Indian Ocean, the gem-like islands of the Maldives depict the rare vision of a tropical paradise. The palm fringed islands with sparkling white beaches, turquoise lagoons, clear warm waters and coral reefs teeming with abundant varieties of marine flora and fauna, continue to fascinate visitors with some of the most breathtaking views of underwater life in the world. Of the 1,190 coral islands that make up this paradise destination, 202 are inhabited and 87 are exclusive resorts.



Seychelles

The Seychelles, one of the world's very last frontiers, promises adventure and breathtaking natural beauty in pristine surrounds still untouched by man. Thousands of miles of unspoiled beaches, warm waters, friendly people and sumptuous cuisine, all go to make the Seychelles an ideal destination for every kind of holidaymaker.

Amman

Discover your inner peace in Jordan's land of contrast. A city built in 199 hills, Amman attractively blends the desert and the fertile, and the historical and the modern. It has named its towns according to the hills and mountains on which they lie. Modern Amman is regarded to be one of the most liberal westernised cities in Eurasia and the Middle East. It is one of the best cities to enjoy a vacation or even settle down.



Beirut

Once tasted, never forgotten, Arabian nights on the Mediterranean coast – this image just about sums up the contrasts and pleasure of Lebanon and its man city of Beirut. Rich in culture and history, Beirut is a destination that at once surprises and pleases. One visit will never be enough. Once tasted, Beirut is never forgotten and never truly left.

Muscat

Its glory is in its rich diversity. For a true taste of Arabia, Oman is your place. A diverse landscape of mountains, deserts, seascapes and rich heritage displayed through its forts and architecture both new and old, Oman offers it all to the modern traveller. Explore the breathtaking marine depths of its waters, climb its rugged hills and be mesmerized by its deep canyons. Ride cantankerous camels and welcome sea turtles back to shore to nest – the activities are as diverse as the landscape itself.

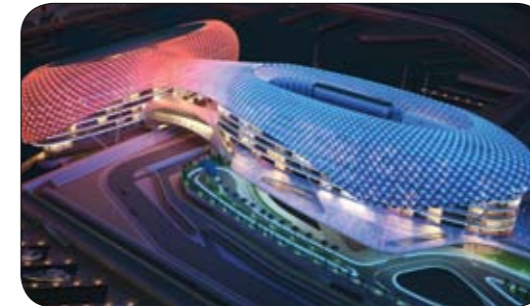


Dubai

Experience clean living at its peak. Dubai is all about oil, gas and glamour. One of the world's fastest growing cities, what was once a small trading centre has emerged as a major tourist destination. Because Dubai lies at the crossroads of three continents it is a destination that combined the simplicity of the east and the comfort of the west. In addition it has attracted tourists who are looking for something new and exciting as well as clean and safe.



Once tasted, never forgotten.



Abu Dhabi

No city can match up to your fantasies like Abu Dhabi. With its awesome glass skyscrapers, magnificent buildings, lively souqs, excellent international restaurants and long stretches of white beaches, Abu Dhabi has been laid out to postcard perfection. The City can trace its history back to the Bronze Age and has a long tradition of profitable trading. But it wasn't until the 1950s, when oil was found, that Abu Dhabi was transformed into the fabulous city it is today.

Istanbul

Be captivated by Europe's largest and wealthiest city of the middle Ages. Constantine's Legacy takes you to the crossroads of Europe and Asia. Although the city breathes a thousand years of the Byzantine Empire, modern Istanbul throbs with the life of the modern world. The two sides of Istanbul – the busy European and serene Asian – perfectly complement each other.



QATAR AIRWAYS FLIGHT SCHEDULE TO LEISURE DESTINATION FOR WPC DELEGATES

CITY	NO. OF FLIGHTS/week	DAYS OF OPERATION	DEPARTURE	ARRIVAL	FLYING HOURS
Maldives	14	Daily	01:10	07:50	4:40Hrs
Seychelles	7	Daily	00:30	06:20	4:50Hrs
Istanbul	10	Daily	07:50	12:05	4:20Hrs
Colombo	21	Daily	00:50	08:15	4:55:Hrs
Amman	7	Daily	13:00	15:45	2:45Hrs
Beirut	21	Daily	07:40	10:45	3:05:Hrs
Dubai	77	Daily	Multiple		1:05Hrs
Abu Dhabi	35	Daily	Multiple		1:05Hrs
Muscat	24	Daily	Multiple		1:20Hrs

Enjoy the Benefits of Early Delegate Registration!

With an excess of 5,000 delegates expected at the 20th World Petroleum Congress (WPC) in Doha, Qatar from 4-8 December 2011, early registration is encouraged to secure your place and enjoy the incredible benefits.

Registering now for the 20th WPC will ensure you secure your necessary accommodation bookings and receive a 15% discount on airfares to Doha. Your registration benefits further include access to all plenary and technical sessions, free transport between venues and hotels, free tours and access to all social functions.

To book your place and view full details on the detailed technical programme, exhibition, social events and travel arrangements, please visit www.20wpc.com



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