Bilateral Energy Diplomacy in a Time of Energy Transition

Dr Steven Griffiths

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Executive Summary

◊ The world is in the early stages of a transition away from dependence on fossil fuels and toward a greater reliance on renewable energy sources. This transition will fundamentally alter the relationship between energy producers and consumers. Bilateral energy diplomacy can ensure a country’s long-term energy security and economic well-being through the fostering of foreign relationships with energy suppliers and customers.

◊ This EDA Insight provides an overview and analysis of bilateral energy diplomacy as a foreign policy tool. The strategic objectives of bilateral energy diplomacy for Gulf Cooperation Council (GCC) countries are analysed and then considered specifically within the context of the United Arab Emirates (UAE). The UAE case study yields foreign policy conclusions and recommendations that serve as useful guidance for all hydrocarbon-exporting countries.

◊ The GCC analysis suggests that bilateral energy diplomacy efforts should be focused on monetising the country’s hydrocarbon resources over the long-term and ensuring economic diversification that lessens economic dependence on oil export revenues. Bilateral relations with Asian countries that will serve as long-term markets for hydrocarbons and hydrocarbon-based products are critical to achieving these objectives.

◊ The UAE has established and fostered strong bilateral diplomatic relations with countries that share mutual interests concerning the energy transition. These countries include not only energy importing countries in Asia, but also countries such as Saudi Arabia and Russia that share a common interest in the long-term economic viability of hydrocarbons. Diplomatic engagement with the support of multiple governments and non-state actors have been important in advancing these UAE energy diplomacy efforts.

◊ Although the UAE’s key bilateral partnerships have strong energy and investment foundations, they can be further developed to include more emphasis on science and technology collaboration, which will serve the UAE’s interest in building a diversified, knowledge-based economy. The key topic for the UAE to pursue in bilateral science and technology partnerships is artificial intelligence (AI), which is revolutionising all sectors, including energy. The UAE can build on strong bilateral partnerships already established with some of the world’s leaders in AI, such as China.

◊ Based on the UAE case study, the following foreign policy recommendations are made to guide the bilateral energy diplomacy efforts of hydrocarbon-exporting countries:

- Develop special bilateral relationships, which involve regular bilateral consultations with a broad set of government and industry stakeholders, with countries that can provide strategic benefit during the energy transition;
- Engage key national stakeholders beyond the ministry or department overseeing foreign affairs for the fostering of special bilateral relationships;
- Develop and leverage soft power in bilateral energy relationships through humanitarian, scientific and academic, cultural and economic means;
- Pursue bilateral collaborations to advance national science and technology capabilities; and
- Engage in multilateral energy diplomacy via key regional and international organisations to complement bilateral efforts.
The Issue

The world is in the early stages of a transition away from dependence on fossil fuels that have been at the centre of our energy system since the start of the first industrial revolution. Although the ultimate extent of the transition and the timeframe for it to occur are not certain, it is undeniable that in the coming decades the role of fossil-based energy will diminish as the role of renewable energy sources increases significantly. This rise of renewable energy will be accompanied by increased electrification and digitalisation across all energy sectors as well as decentralisation of energy supply.

This multifaceted energy transition will fundamentally alter the geopolitics of energy in a number of ways, including a changing of power relations among and between energy producers and consumers. Hydrocarbon-exporting countries face the potential for negative economic and political impacts from reduced energy exports while energy importing countries can benefit from greater energy self-reliance and, in some cases, the export of clean energy technologies.

As such challenges and opportunities evolve, diplomacy will become an increasingly important instrument of foreign policy as countries strive for strategic positioning in the future energy landscape. While various forms of multilateral diplomacy are important in concurrently aligning the energy transition interests of multiple stakeholders, bilateral diplomacy is the most direct, if not the most effective, means of pursuing national interests.

The Gulf Cooperation Council (GCC) countries – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates, UAE – have distinct socioeconomic contexts based on their differing natural resource endowments and demographics but all rely significantly on oil export revenues to meet their budgetary needs. These countries therefore face a potentially challenging future should the energy transition result in a significant reduction in global demand for oil. This EDA Insight will argue that, in order to counter this challenge, GCC countries need to forge strong bilateral relationships that will support long-term monetisation of their hydrocarbon resources as well as new economic opportunities that arise from the energy transition.

The UAE is a GCC country that has been developing strategic bilateral relationships regionally and globally in an effort to effectively position for the energy transition. The country’s bilateral energy diplomacy directions collectively serve as a general case study for the foreign policy design of hydrocarbon-exporting countries facing an uncertain future energy landscape.

The Global Energy Transition and Energy Diplomacy

The Energy Transition and Its Geopolitical Impacts

The global energy mix has been dominated by fossil fuels for decades with relatively little change. The share of fossil fuels in total final energy consumption fell from about 85% in the early 1970s to about 80% by the early 1980s but has stagnated at this level since that time. However, this situation is beginning to change due largely to the rapidly falling costs of renewable energy technologies and growing awareness of the negative environmental impacts of carbon dioxide emissions from fossil fuel combustion. Consistent with the various definitions of ‘energy transition’, changes in our energy and economic system through the remainder of this century will be characterised by a shift from reliance almost entirely on fossil fuel-based energy to a much greater reliance on renewable energy.

Although the ultimate extent of renewable energy adoption across all energy sectors is not certain, current trends point toward a significant increase of renewable energy in the power sector by the middle of this century coupled with major advances in transportation electrification. As evidence of the trend, renewable energy, excluding large hydropower, was responsible for 61% of new power generation capacity worldwide in 2017, and the annual growth in electric passenger car sales has remained at nearly 60% every year since 2015.

Because of this trend in vehicle electrification, coupled with shared mobility and improved vehicle efficiency, oil demand for petrochemical production will begin to outpace oil demand for transportation. Petrochemicals are expected to account for more than one-third of the growth in oil demand between now and 2030, and nearly half of the growth in oil demand to 2050.

Although current trends have led to consensus that an ‘energy transition’ is underway, social and political dynamics will be a key determinant of the extent to which clean energy technologies are adopted. Among the many published global energy outlooks, those published by the Institute of Energy Economics, Japan (IEEJ) and Equinor are two that provide insight into how...
the energy transition may unfold differently based on uncertain social, economic and political conditions that may develop globally in the coming years.\(^6\)

As shown in Table 1, rapid and significant proliferation of clean energy requires a world with strong global energy governance that prioritises sustainability. Weak global energy governance, on the other hand, is more likely to hinder the deployment of clean energy technologies, particularly when accompanied by international political strife. Hence, foreign relations are at the core of the energy transition.

Just as geopolitics are foundational to the energy transition, the widespread diffusion of clean energy into the global energy system will significantly impact geopolitics. Power relations between energy producers and consumers will be altered as energy markets become increasingly defined by the combination of resource abundance, energy self-reliance and interconnectivity of electrical grids. This will replace the historical combination of energy resource scarcity and geographical concentration that requires transportation of energy over long distances to reach end markets.\(^7\)

Given the expected geopolitical impacts of the energy transition and the impacts of the transition on the broader state of international affairs, countries must be prepared to adapt their foreign relations for the protection of their national interests.

### Energy Diplomacy

Although there is no exact definition for energy diplomacy, for the purposes of this paper it pertains to foreign relations that aim to ensure a country’s energy security while also promoting business opportunities related to the energy sector. Among the set of foreign policy tools that can be leveraged to support a country’s energy interests during the energy transition, diplomacy is one of the most important and can be either bilateral or multilateral in scope.\(^8\)

A large-scale transformation of the energy system to one predominantly based on clean energy will certainly require aligning the interests of multiple parties through multilateral diplomacy. Global energy governance is perhaps the most important form of multilateral diplomacy for a large-scale energy system.

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**Table 1. Summary of Selected Global Energy Transition Scenarios**

<table>
<thead>
<tr>
<th>Study</th>
<th>Scenario</th>
<th>Summary</th>
<th>Electricity Demand (TWhr)</th>
<th>Total Final Energy from Electricity (%)</th>
<th>Electricity Generation from Renewables (%)</th>
<th>Electricity Generation from Solar PV and Wind (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reform</td>
<td>International Setting: Market-oriented international interactions with modest global energy governance Policy Direction: NDCs from the 21st Conference of the Parties in Paris in 2015 Technology Evolution: continuation of recent trends at the pace observed in recent years with no breakthroughs expected</td>
<td>24,656</td>
<td>36,053</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>Equinor</td>
<td>Renewal</td>
<td>International Setting: Strong global energy governance toward a shared vision of the energy future Policy Direction: Strong policy interventions globally with the intent of achieving energy sector GHG emissions consistent with limiting global warming below 2 degrees relative to pre-industrial levels Technology Evolution: substantial evolution of low carbon technologies due to strong policies with carbon capture, energy storage playing a key role along with major deployment of zero emissions passenger vehicles</td>
<td>24,656</td>
<td>34,890</td>
<td>19%</td>
<td>33%</td>
</tr>
<tr>
<td>Equinor</td>
<td>Rivalry</td>
<td>International Setting: Weak global energy governance framed by geopolitical tension Policy Direction: Weak environmental regulation with concern shifted to short-term interests Technology Evolution: emphasis on exploitation of Indigenous resources at lowest cost as opposed to deployment of low carbon technologies</td>
<td>24,656</td>
<td>34,890</td>
<td>19%</td>
<td>25%</td>
</tr>
<tr>
<td>IEEJ</td>
<td>Reference</td>
<td>Overview: Energy, environment and related policies follow current trends with no significant deviations expected.</td>
<td>24,656</td>
<td>38,658</td>
<td>19%</td>
<td>24%</td>
</tr>
<tr>
<td>IEEJ</td>
<td>Advanced Technologies</td>
<td>Overview: The use of energy conservation and low-carbon technologies is maximized in all countries to ensure stable energy supply while meeting aggressive climate change objectives.</td>
<td>24,656</td>
<td>35,030</td>
<td>19%</td>
<td>25%</td>
</tr>
<tr>
<td>IEEJ</td>
<td>Peak Oil Demand</td>
<td>Overview: Strong policies are enacted for the rapid development and deployment of zero emission vehicles, particularly for passenger transportation.</td>
<td>24,656</td>
<td>45,450</td>
<td>19%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Bilateral Energy Diplomacy

transformation, as it seeks to ensure on a global scale security of energy supply and demand, economic development, international security, environmental sustainability and domestic good governance.9

Although global energy governance is being pursued by a variety of intergovernmental organisations, clubs, forums, networks, partnerships, multilateral institutions and United Nations entities,10 the potential for strong governance remains unrealised due to fragmentation of the actors involved and their genuinely different interests.

Therefore, while it is imperative that countries engage in the pursuit of global energy governance via prominent organisations such as the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA) and the Organisation of the Petroleum Exporting Countries (OPEC), other means of diplomacy will be more effective in the directed pursuit of national interests.

Bilateral diplomacy, which involves direct diplomatic engagement between two countries, is both efficient and flexible because, with fewer parties involved, coordination costs are lower and common interests related to culture, politics and economy are easier to align. The depth of bilateral diplomatic relations that one country establishes with another can be described as special, normal or peripheral.11 While normal engagement between countries involves regular engagement via embassies, consulates and other diplomatic channels, special relations typically involve a broader number of actors, employ diverse modes of engagement and serve a distinct strategic purpose. Such special bilateral relations typically arise between countries with strong political, security or economic links. The geopolitical ramifications of the energy transition are one of the key reasons why the establishment of special bilateral diplomatic relations are increasingly important.

Once bilateral diplomatic relations are established, the effectiveness of these relations in supporting a country’s energy interests depends on the power or influence that a country is able to establish with its counterparts. ‘Soft power’ is a very important concept in this regard because soft power is defined as the means by which one country gets another country to do what it wants via perceived legitimacy, attractiveness of ideology and cultural and societal norms.12 In essence, soft power is about affecting behaviour without commanding it.

Although countries with sufficient resources may succeed in the energy transition by exercising ‘hard power’ tactics of coercion and/or payment,13 most countries lack the physical and/or financial resources to implement a hard power approach to achieving their foreign energy policy objectives. Rather, they will need to develop trust and collaborative partnerships with the countries that they will rely on as either energy suppliers or energy consumers. This further supports the notation that bilateral diplomacy, which is a key means for exercising soft power, is essential for countries when they seek to position themselves favourably in the energy transition.

Box 1: Power in Energy Relations

Hard power is about coercion and inducement to achieve one’s objectives while soft power is about attraction or co-option to achieve the same outcomes. Pascual has outlined how hard power tactics can work in energy markets via his ‘Rules of Six’ framework. This framework proposes six tactical interventions that can be used by nations to intervene in energy markets and six market and institutional factors that ultimately determine the success of these interventions in achieving desired outcomes. Application of the framework to a selected set of countries and regions shows that such tactics are not likely to be successful during the energy transition for all but a small number of countries that possess substantial natural, military and/or economic resources, such as China. Even China, however, is pursuing soft power as a key means of achieving its energy interests.


GCC Bilateral Energy Diplomacy

Strategic Objectives

As with all forms of foreign policy, foreign energy policy is designed to protect and support national interests. National energy interests are concerned with energy-related societal goals, including universal access to reliable and affordable energy that supports economic development. Energy security, including energy availability, is perhaps the defining feature of national
Bilateral Energy Diplomacy

energy policy, although other essential elements are energy affordability, energy efficiency, environmental preservation, energy sector regulation and energy sector governance.14

For GCC countries, security of domestic energy supply and economic efficiency in the power sector are key energy policy concerns. Hence, renewable energy, electricity trade, natural gas supply and nuclear energy need to play an important role in the foreign energy policies and bilateral energy diplomacy efforts of GCC countries.15

However, despite the importance of these issues, the even more pressing foreign energy policy concern for GCC countries arising specifically from the energy transition is security of external energy demand for the monetisation of hydrocarbon resources. With the exception of Qatar, which is a major global exporter of liquefied natural gas (LNG), GCC countries are currently primarily concerned with securing markets for their crude oil exports and hydrocarbon products.

As shown in Figure 1, global demand for crude oil is expected to remain significant in the coming decades but the extent of demand is highly uncertain. If demand for oil falls significantly as some scenarios suggest, so will the price of oil. This means that even if GCC countries remain major oil exporters because they are low cost producers, resulting government revenues could be very negatively affected. For example, in IEEJ’s Peak Oil Demand scenario (Table 1), a large-scale shift to electric vehicles reduces global oil demand to 88.7 million barrels per day (mbpd) by 2050, which is a 33 mbpd reduction relative to the reference scenario (Figure 1). The projected impact on Middle Eastern countries in this scenario is US$1.6 trillion in foregone oil export revenues in 2050, which would be equivalent to 13% of nominal GDP for these countries and is based primarily on reduced oil prices rather than reduced demand for Middle Eastern oil.

Substantially reduced oil export revenues would have a major impact on GCC countries under their current economic structures. Across the GCC countries, fiscal revenues are more than 50% derived from hydrocarbon exports and any significant diversification in GDP is largely based on investments and expenditures made using hydrocarbon export revenues.16 It is therefore critical for GCC countries to diversify their economies to reduce this dependence.17 Diversification efforts will include a greatly increased focus on petrochemicals for monetisation of oil and gas resources as well as the development of new economic sectors that are not directly tied to hydrocarbons.

Given the context of GCC countries in the energy transition, their priority efforts in energy diplomacy should support long-term monetisation of hydrocarbon resources and development of diversified economic sectors. For both priorities, relations with Asia are particularly important.18 Growing energy

Figure 1. Projected Global Oil Demand (Equinor and IEEJ Scenarios)
interdependence between GCC and Asian economies has supported a pivot in GCC trade relations towards Asia in recent years, with China, Japan, India and South Korea serving as vital regional partners given their current levels of hydrocarbon energy imports from the GCC (Figure 2).

China is perhaps the most important Asian country for strategic consideration given the expectation that its Belt and Road Initiative can create economic benefits for GCC countries that extend far beyond energy trade. However, GCC countries should maintain diversified energy relationships across Asia because of the strategic importance of maintaining a balance of relational power with China.

A strategic framework for development of special bilateral diplomatic relations between GCC and Asian countries would position energy at the core. Infrastructure and investment would form the next level of engagement, and finally joint development of advanced technologies would be the ultimate ambition. This framework, presented in Figure 3, which is consistent with China’s articulated approach to engaging Arab countries, builds on current bilateral energy relations and has the aim to further support GCC countries in their economic diversification efforts.

**UAE Implementation**

The UAE has been very effective in its foreign affairs having established diplomatic relations with 189 countries and formalising these through the establishment of 82 embassies abroad, and hosting of 110 foreign embassies and 15 regional and international organisations in the country. Furthering the country’s diplomatic efforts, in 2017 the UAE launched its Soft Power Strategy, which aims to increase the UAE’s global reputation abroad by highlighting to the world its identity, heritage, culture and global contributions.

The pillars of this strategy are diplomacy in its many forms, including humanitarian, scientific and academic, cultural and economic.

Given the UAE’s strategic emphasis on diplomacy in foreign affairs, the country presents an excellent case study for the bilateral energy diplomacy of a major hydrocarbon-exporting country proactively engaging
in the foreign relations of the global energy transition. Here it is important to note that the UAE consists of seven different emirates and each emirate has the constitutional right to pursue its own policies regarding the development of its oil and gas resources. The emirate of Abu Dhabi, however, possesses approximately 94% of the UAE’s proven oil and gas resources and so is the emirate of key concern in this paper and within the international energy industry more broadly.

In Abu Dhabi, the Supreme Petroleum Council, which has as its Chairman the President of the UAE, has overall policy-making responsibility for the petroleum industry and management control over the Abu Dhabi National Oil Company (ADNOC). ADNOC is responsible for managing the day-to-day operations of Abu Dhabi’s petroleum industry and carrying out the directives of the Supreme Petroleum Council. ADNOC is well-positioned to engage in the UAE’s energy diplomacy because its current CEO, Dr. Sultan Al Jaber, is also UAE Minister of State. This strong link between ADNOC and the UAE Ministry of Foreign Affairs and International Cooperation (MoFAIC) demonstrates the UAE’s foresight with regard to energy diplomacy.

Based on hydrocarbon trade data, the UAE’s core energy relationships are currently with China, India, Japan, South Korea, Singapore and Thailand (see Figure 2). Each of these countries factors strongly into the UAE’s foreign policy not only as a market for oil exports, but also for broader energy and economic relations.

Referring to the classification of bilateral diplomatic relations as special, normal and peripheral, each of the UAE’s key Asian energy trade partners has a special relationship with the UAE (see Table 2). However, the special partnerships with Northeast Asian countries and India have each been upgraded since the start of 2017 to a ‘strategic’ level, which can be considered an enhanced level of special partnership. Furthermore, the major bilateral diplomatic meetings that launched these enhanced relations have resulted in expanded energy partnerships.

This strengthening of bilateral relations between the UAE and its Asian partners during this early phase of the energy transition is logical. Falling oil demand and reduced oil prices would push high cost producers out of the market, making oil importing countries more reliant on low cost producers in the Middle East. For this reason, Asian economies that will continue to be significant energy importers should seek long-term partnerships for energy supply with stable countries that are expected to be long-term hydrocarbon exporters. The UAE is well-positioned to fill this role given its sound political environment and ongoing economic diversification aimed at building strong economic foundations.

Having established special diplomatic relations with key Asian countries, the UAE’s core energy relations with these countries have continued to progress well with ADNOC awarding recent onshore and offshore oil concessions to national oil companies from China, Japan, South Korea and India (see Figure 4). Further, the launch of ADNOC’s first ever exploration licensing round

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**Box 2: UAE and China Bilateral Energy Relations**

Through the China National Petroleum Company (CNPC), China has already become a major player in Abu Dhabi’s oil and gas sector. Not only has CNPC been awarded stakes in ADNOC’s onshore and offshore concessions, ADNOC awarded in July 2018 a US$1.6 billion contract to CNPC subsidiary BGP for onshore and offshore 3D seismic surveying, which will be completed by 2024.

This relationship development follows the 40% stake awarded to CNPC in 2014 in the Al-Yasat joint venture with ADNOC. CNPC is also positioned to engage in the development of Abu Dhabi’s abundant sour gas fields as the UAE works to increase its natural gas production.

China Petroleum Engineering and Construction (CPECC) has also represented China in the UAE via its work in constructing the 1.5 mbpd Habshan–Fujairah pipeline, which allows UAE crude oil to be loaded on ships that do not need to pass through the Strait of Hormuz.

## Table 2. Key UAE Bilateral Relationships with Asian Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>UAE Foreign Embassy</th>
<th>Type of Bilateral Relationship</th>
<th>Key Diplomatic Events since 2016</th>
<th>Energy Aspects</th>
</tr>
</thead>
</table>
| China    | Northeast Asia | Beijing, established in 1987   | Special (Comprehensive Strategic Partnership) | 21 July 2018                                                                                     | • Visit of Chinese President Xi Jinping to the UAE  
  • Agreement to elevate the strategic partnership between the UAE and China established in 2012 into a ‘comprehensive strategic partnership’  
  • Partnership between ADNOC and CNPC for strategic oil and gas sector projects  
  • Advanced energy cooperation agreement between the UAE Ministry of Energy and Industry and China’s National Energy Commission  
  • Partnership and investment agreement in the world’s largest solar energy project in Dubai |
| Japan    | Northeast Asia | Tokyo, established in 1973   | Special (Comprehensive Strategic Partnership) | 30 April 2018                                                                                     | • Visit of Prime Minister Shinzo Abe to the UAE  
  • Agreement to deepen and strengthen the existing strategic partnership between the UAE and Japan through a ‘comprehensive strategic partnership’  
  • Reaffirmed determination to further expand joint projects in the energy sector with inclusion of clean and renewable energy, upstream and downstream oil and gas and platform technologies and capabilities such as cyber security, robotics, internet-of-things, big data analysis, artificial intelligence, and nanotechnology |
| South Korea | Northeast Asia | Seoul, established in 1987 | Special (Special Strategic Partnership) | 25 March 2018                                                                                     | • Visit of President Moon Jae-in to the UAE  
  • Agreement to upgrade the strategic partnership between the UAE and Japan established in 2009 into a ‘special strategic partnership’  
  • Celebration marking the completion of the construction of the first nuclear reactor as part of the Barakah Nuclear Energy Plant project (UAE and Korea strategic partnership is significantly based on the use of Korean technology in the UAE’s nuclear program)  
  • Agreements in science and renewable energy |
| Singapore | Southeast Asia | Singapore, established in 1985 | Special                             | 11 May 2018                                                                                       | • Visit of His Highness Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation, to Singapore  
  • Discussion on ways to enhance bilateral relations and strengthen cooperation in trade, investment, tourism and food security |
| Thailand | Southeast Asia | Bangkok, established in 1998 | Special                             | 13 May 2016                                                                                       | • Visit of His Highness Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation, to Thailand for the first UAE-Thai joint committee meeting  
  • Discussion on Thailand’s readiness to support UAE in food security and the UAE’s readiness to support Thailand in energy security |
| India    | South Asia   | New Delhi, established in 1972   | Special (Strategic Partnership)       | 26 January 2017                                                                                   | • Visit of His Highness Sheikh Mohamed Bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, to India  
  • Agreement to implement comprehensive bilateral strategic partnership  
  • Agreement on strategic crude oil storage in India signed between ADNOC and Indian Strategic Petroleum Reserves Ltd (ISPRL) |
in 2018 is likely to attract additional Asian investment in the UAE’s oil and gas sector, particularly China.\textsuperscript{36}

Notably, the depth of the UAE’s relations with China extend beyond those established by ADNOC. Mubadala Investment Company, Abu Dhabi’s global multi-sector investment company whose board Chairman is Abu Dhabi’s Crown Prince His Highness Sheikh Mohamed bin Zayed Al Nahyan, established in 2018 the UAE-China Joint Investment Fund as a partnership between Mubadala, China Development Bank Capital and China’s State Administration of Foreign Exchange.\textsuperscript{37} The fund will invest in assets in the UAE and China, and demonstrates the second layer of strategic engagement between GCC and Asian economies, which is joint investment and infrastructure development (Figure 3).

Given the extremely important energy and economic relationship between the UAE and China, a ‘UAE-China Week’ has been established, which will be held annually in both countries to promote mutual cultural appreciation.\textsuperscript{38} Such cultural diplomacy is a visible application of the UAE’s soft power strategy.

The UAE has also strengthened energy relations with Japan, which is currently its largest oil export market (Figure 2). Japan has secured stakes in Abu Dhabi’s onshore oil concession as well as multiple ADNOC offshore concessions. Through these concessions, Japan is expected to remain an oil partner with the UAE at least until 2058 (Figure 4). Similar to its engagement with China, the UAE is building strong investment links with Japan as part of the comprehensive strategic partnership between Japan and the UAE.\textsuperscript{39}

While the UAE has clearly developed strategic alignment with Asia for its upstream development plans and broader investments, the UAE’s more recent ambition for its hydrocarbon sector is to aggressively move into petrochemicals. This sector is the fastest growing source of global oil demand\textsuperscript{40} and is therefore important to the long-term monetisation of the country’s abundant oil and gas resources. ADNOC is investing US$45 billion by 2025 to develop Abu Dhabi into what it expects will be the world’s largest integrated refining and petrochemicals complex and is also taking equity in overseas downstream projects to secure end markets for its products.\textsuperscript{41}

The UAE also aims to partner with countries in the development of their refining and petrochemicals capacity overseas rather than seeing these countries develop capacity independently. ADNOC’s strategic commitment to overseas engagement is demonstrated

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### Figure 4. ADNOC Onshore and Offshore Concession Partners

<table>
<thead>
<tr>
<th>Partners</th>
<th>Country</th>
<th>Concession</th>
<th>Stake</th>
<th>Expiry</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>UK</td>
<td>Onshore (ADCO)</td>
<td>10%</td>
<td>2055</td>
</tr>
<tr>
<td>Total</td>
<td>France</td>
<td>Onshore (ADCO)</td>
<td>10%</td>
<td>2055</td>
</tr>
<tr>
<td>CNPC</td>
<td>China</td>
<td>Onshore (ADCO)</td>
<td>8%</td>
<td>2055</td>
</tr>
<tr>
<td>CEFC</td>
<td>China</td>
<td>Onshore (ADCO)</td>
<td>4%</td>
<td>2055</td>
</tr>
<tr>
<td>JODCO (Impex)</td>
<td>Japan</td>
<td>Onshore (ADCO)</td>
<td>5%</td>
<td>2055</td>
</tr>
<tr>
<td>GS Energy</td>
<td>S. Korea</td>
<td>Onshore (ADCO)</td>
<td>3%</td>
<td>2055</td>
</tr>
<tr>
<td>ExxonMobile</td>
<td>US</td>
<td>Offshore - Upper Zakum (ZADCO)</td>
<td>28%</td>
<td>2051</td>
</tr>
<tr>
<td>JODCO (Impex)</td>
<td>Japan</td>
<td>Offshore - Upper Zakum (ZADCO)</td>
<td>12%</td>
<td>2051</td>
</tr>
<tr>
<td>JODCO (Impex)</td>
<td>Japan</td>
<td>Offshore - Umm Al-Dalkh (ZADCO)</td>
<td>40%</td>
<td>2043</td>
</tr>
<tr>
<td>JODCO (Impex)</td>
<td>Japan</td>
<td>Offshore - Satah (ZADCO)</td>
<td>40%</td>
<td>2043</td>
</tr>
<tr>
<td>ONGC Consortium</td>
<td>India</td>
<td>Offshore - Lower Zakum</td>
<td>10%</td>
<td>2058</td>
</tr>
<tr>
<td>Inpex</td>
<td>Japan</td>
<td>Offshore - Lower Zakum</td>
<td>10%</td>
<td>2058</td>
</tr>
<tr>
<td>CNPC</td>
<td>China</td>
<td>Offshore - Lower Zakum</td>
<td>10%</td>
<td>2058</td>
</tr>
<tr>
<td>Eni</td>
<td>Italy</td>
<td>Offshore - Lower Zakum</td>
<td>5%</td>
<td>2058</td>
</tr>
<tr>
<td>Total</td>
<td>France</td>
<td>Offshore - Lower Zakum</td>
<td>5%</td>
<td>2058</td>
</tr>
<tr>
<td>Total</td>
<td>France</td>
<td>Offshore - Umm Shaif &amp; Nasr</td>
<td>20%</td>
<td>2058</td>
</tr>
<tr>
<td>Eni</td>
<td>Italy</td>
<td>Offshore - Umm Shaif &amp; Nasr</td>
<td>10%</td>
<td>2058</td>
</tr>
<tr>
<td>CNPC</td>
<td>China</td>
<td>Offshore - Umm Shaif &amp; Nasr</td>
<td>10%</td>
<td>2058</td>
</tr>
<tr>
<td>Cepsa</td>
<td>Spain</td>
<td>Offshore - Sarb &amp; Umm Lulu</td>
<td>20%</td>
<td>2058</td>
</tr>
<tr>
<td>OMV</td>
<td>Austria</td>
<td>Offshore - Sarb &amp; Umm Lulu</td>
<td>20%</td>
<td>2058</td>
</tr>
</tbody>
</table>

Sources: author; maps: Total 2018; JODCO 2018
by the 25% equity stake the company has taken in India’s proposed Ratnagiri refining and petrochemicals complex. This is ADNOC’s first overseas downstream investment and follows the establishment of the comprehensive bilateral strategic partnership with India in 2017 (see Table 2).

In addition to ADNOC, Mubadala is supporting the UAE in its push for downstream activity via investments abroad. The CEO of Mubadala Petroleum and Petrochemicals has stated that petrochemicals are ‘an enabler for the new industrial revolution’ and Mubadala’s recent investments abroad reflect this sentiment.

Common interests in Gulf geopolitical stability and hydrocarbon energy also underpin the UAE’s recently strengthened strategic partnership with Saudi Arabia. The UAE and Saudi Arabia have formed a Joint Cooperation Council (JCC) to cover ‘all military, political, economic, trade and cultural fields’ between the countries. The JCC is the implementing body of the UAE-Saudi ‘Strategy of Resolve’ and establishes a new mode of bilateral cooperation following the current fragmentation of the GCC.

Although Asia is clearly a key target for the UAE’s bilateral energy diplomacy, it should not be overlooked that regional and European countries will play an important role in the country’s energy future. The UAE’s strong diplomatic relations with the United Kingdom and France are reflected in the significant engagement of BP and Total in Abu Dhabi’s onshore and offshore oil development (Figure 4).

The UAE’s strategic bilateral partnership with Russia, which includes energy and regional security as foundational elements, was established in June 2018 to promote common interests in oil, gas and nuclear energy. It builds on the 2013 establishment of Mubadala’s US$2 billion Russian Direct Investment Fund (RDIF). The UAE’s bilateral partnership with Russia is in part important because the UAE and Russia have a common interest in prolonging the economic viability of hydrocarbon energy. Russia has additionally been suggested as an ally for the UAE in establishing geopolitical stability in the Gulf.

Such broad benefits would be achieved through machine learning and other AI techniques that support the UAE in advancing automation, augmentation of human capabilities and stimulation of the country’s fundamental innovation potential. Furthermore, AI is central to energy sector digitalisation and can support the UAE in integrating renewable energy technologies into the country’s power sector, creating an intelligent transportation system and reducing the cost of UAE oil production to improve the long-term profitability of oil exports.

Because AI is expected to have such major economic impacts for the UAE, exploiting strong bilateral ties with countries that are extremely advanced in AI is an important and recommended energy transition strategy for the country. Like the UAE, China, Japan, South Korea, Singapore and India have each launched AI strategies since 2017 that provide foundations for international AI collaboration. So far, however, only India has formally engaged the UAE for bilateral cooperation on AI. The UAE therefore needs to expand its international engagements in AI, and China is particularly important in this regard given the country’s ambitious scheme to become a world leader in AI technology by 2030.
Foreign Policy Recommendations

Bilateral energy diplomacy aims to ensure a country’s long-term energy security and economic well-being through the fostering of foreign relationships with energy suppliers and customers. Similar to other GCC countries, the dual energy diplomacy interests for the UAE that arise from the energy transition are development of business opportunities for monetising the country’s hydrocarbon resources and ensuring economic diversification that lessens dependence on oil export revenues.

Based on these considerations and the analysis provided in this paper, the following foreign policy directions are recommended for bilateral energy diplomacy and elaborated with regard to the UAE’s implementation:

• **Develop special bilateral relationships with countries that can provide strategic benefit during the energy transition.** The UAE has already established special strategic bilateral relationships with a number of countries that are important partners for energy and economic reasons. Additional special relationships may be formed with countries that have strong capabilities in key growth areas such as petrochemicals.

• **Engage key national stakeholders beyond the ministry or department overseeing foreign affairs in the fostering of special bilateral relationships.** Special bilateral relationships require regular consultations between partner countries and the UAE’s political leadership. These consultations will of course include MoFAIC but should extend to other UAE ministries dealing with energy, industry, environment and technology. Organisations such as ADNOC and Mubadala already play an important diplomatic role in bilateral energy diplomacy and their engagement is important.

• **Develop and leverage soft power in bilateral energy relationships.** The UAE has effectively exercised soft power via multiple bilateral investment relationships established by Mubadala as well as other UAE government organisations. The establishment of UAE-China Week is a further effort toward soft power that could be replicated in other key bilateral relations.

• **Pursue bilateral collaborations to advance national science and technology capabilities.** Digitalisation, and particularly AI, is one of the most critical areas of advanced technology development across all industries. The UAE’s strong bilateral ties with countries at the forefront of AI, especially China, make AI collaboration an important opportunity that can have direct benefit for the country’s energy sector.

• **Engage in multilateral diplomacy to complement bilateral efforts.** Multilateral diplomacy will continue to be important for the UAE to secure a voice in global energy governance. This means that the UAE’s current strong engagements with the IRENA, OPEC and other multilateral organisations that are shaping the global energy dialogue are essential.

While these recommendations are derived from the UAE context, they are intended to be broadly applicable to the bilateral energy diplomacy of hydrocarbon-exporting countries.
Endnotes


20. Liangxiang, J.; Janardhan, N. 2018. Belt and Road Initiative: Opportunities and Obstacles for the Gulf. EDA.


30. UAE-China Week to be held annually. 2018. 'The National' website.
31. Kader, B.A. 2018. 'UAE and Japan sign partnership initiative', 
   Gulf News, 30 April.
34. MEES. 2018. 'Adnoc Joins Aramco In $44bn Indian Refining And Petchems Venture', MEES 61, 8-9.