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Greening oil money: The geopolitics of energy finance going green

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ABSTRACT

This article examines the role of "oil money" in promoting the energy transition, tracing activities across the oil industry and countries heavily dependent on oil revenues to bolster their green credentials. Through a case study of the United Arab Emirates (UAE), I argue that financial sustainability is paramount in places and institutions that feel threatened by fossil fuels divestment efforts and other threats to the oil business and the governmental and financial systems that have been built on and through hydrocarbons. Drawing on research in the UAE from 2014 to 2022, the article illustrates how corporate and government leaders profiting from hydrocarbon sales are searching for diversification opportunities to prolong the benefits of the oil money they control. But given the moral taint of oil money today, these actors are especially interested in the symbolic capital derived from "greening" this oil money by investing in sustainability and energy transition activities – which in turn might even allow them to retain control of global energy systems that they have dominated for so long.

1. Introduction

One of the leading figures in the energy sector of the United Arab Emirates (UAE), Sultan Al Jaber, holds many political titles – he is CEO of the state-owned oil company, Abu Dhabi National Oil Company (ADNOC), Chairman of the country's renewable energy company Masdar, and Minister of Industry and Advanced Technology. And in November 2020, he was appointed as the UAE's Special Envoy for Climate Change. When asked in January 2021 about whether he saw a conflict between his position as the climate change envoy and CEO of the national oil company, he responded that,

> rather than being in conflict, I believe working across the energy mix has given me a deeper understanding of the entire energy system. And based on this, it is clear that the hydrocarbon industry simply has to be at the center of the conversation on climate change. And most importantly, oil and gas has to play a role to be part of the solution. And the fact is, the world will still rely on oil and gas for many decades to come. So this industry, the oil and gas industry, can and must play an important role in the transition to a lower-carbon future (quoted in [1]).

Throughout this interview and others like it at the Atlantic Council's Global Energy Forum, held yearly in Abu Dhabi since 2017, Al Jaber took the opportunity to hail the UAE's and ADNOC's supposedly progressive approach to promoting the energy transition.

Al Jaber's multiple roles in the government, the government-owned oil company, and the government-owned renewable energy company illustrates the intimate connection between oil and post-oil visions for the UAE's future. The country's economy is heavily dependent on oil export revenues, some of which immediately fund the government and some of which are pooled in sovereign wealth funds for strategic investments for the future. Elites have many ways to reap personal rewards from this wealth, but overall, the UAE is a developmentalist state. Government investments in sustainability initiatives and a broad array of economic diversification projects are clear examples of the modernizing ambitions of such states. And yet, as the UAE's economy is currently configured, the modern, "post-oil" future projected in the ruling families' developmentalist vision cannot be funded without oil money. This is why Al Jaber asserts that "the hydrocarbon industry simply has to be at the center of the conversation on climate change."

Al Jaber is not alone in telling this story. Diverse actors in the oil sector – including political and corporate figures alike – are increasingly adopting energy transition rhetoric and, in some cases, actually building alternative energy projects [2–4]. A growing number of networks of hydrocarbon firms, like the "Oil and Gas Climate Initiatives" group, have called for more climate responsible energy policies and shifting the oil industry to a lower-carbon future [5]. The gray literature from think tanks like the Atlantic Council or consultancies like McKinsey & Company are also pushing this idea that the hydrocarbon sector can and should be leading the energy transition (e.g. [6–10]). Critics and critical scholars remain suspicious, however, and are quick to reject most sustainability projects funded by oil profiteers as "greenwashing"

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[5,11–13]. Or as one op-ed writer reflecting on some of Shell's climate initiatives in the *Guardian* bluntly put it, "Shell is not a green saviour. It's a planetary death machine" [14].

The greenwashing critique recognizes an inherent tension when oil money enters the sustainability sector. There is no clear line between what does or does not "count" as greenwashing, what is or is not just PR. These normative questions may be important for policy conversations, but they can distract from another, more analytical set of questions about the logic that drives actors controlling oil money to promote such projects. That is, why do they do it? What are they actually doing? What are the geopolitical implications of hydrocarbon profits circulating in the energy transition? And what visions of the "post-oil" future are being communicated and materially built through the oil sector's involvement of contemporary sustainability initiatives? To date, insufficient attention has been given to how oil insiders are promoting post-oil visions to direct the energy transition and shape geopolitics in their favor. And yet, as a handful of scholars have begun to show, *they are* (e.g. [15–19]). To the extent that scholars and reporters have done so elsewhere, they have tended to focus on the greening campaigns of oil companies and their corporate publicity. To extend this research, I argue that a rich, contextual approach is needed to look beyond the oil companies to consider the wide range of actors who are actively working to green their oil money.

To do so, I consider the case of the United Arab Emirates (UAE), where I have been researching greening initiatives since 2014. This mixed-methods research was conducted in English and included textual analysis, interviews, and event ethnography at several large events held during the yearly Abu Dhabi Sustainability Week, including the World Future Energy Summit and the Global Energy Forum, which I attended in person in January 2019, 2020, and 2022. Wherever possible, though, I cite the online transcripts of these events or publicly-accessible corporate materials, rather than the ephemera that I collected at the events. My ethnographic research from the project is presented elsewhere in more detail, but it is important to note that the event ethnographies I conducted in the UAE were an essential way for me to piece together the larger sentiment and affective register of the relevant actors' self-presentation of their sustainability credentials [20] (see also [21]). Further, when writing about such events in Qatar, I previously noted how they "serve in large part as a platform for international and domestic elites, along with their corporate partners, to unify their discourse" ([22]). This case study examines these discourses in the UAE's event spaces, which leaders there have cultivated surrounding the theme of "future energy" and the energy transition.

My research thus answers Love and Isenhour's [23] call for more robust anthropologies of energy, which are crucial to see how actors and narratives converge, compete, and coordinate in this turbulent moment of "transition," however defined:

> We already find ourselves in a curiously prolonged, late modern hiatus between convincing narratives about the energy basis of our civilization. This discursive break provides a space and an invitation to think through larger frames about the manifold connections between energy and economy. The scale and breadth of these converging challenges have created a space in which old and new narratives are jostling for position [23].

Conducting the ethnographic research was an act of bearing witness to this jostling, which of course encompassed far more than can be captured on the pages of a journal article, let alone in words alone. But with these experiences as a contextual background, through photographs and prose, I offer the UAE as a case study of how energy transition narratives are being adapted within the oil industry and countries heavily dependent on oil revenues – showing that *financial* sustainability is paramount in places and institutions that feel threatened by fossil fuels divestment efforts and other threats to the oil business and the governmental and financial systems that have been built on and through hydrocarbons.

2. When is "oil money"?

Money moves around the world in myriad ways, crossing borders, expanding, evaporating, and shape-shifting. This is true of money derived from any activity or sector, but there is something special about "oil money." In the popular imagination in much of the West, and especially on the liberal end of the political spectrum, oil money carries a kind of moral taint. It is dirty, it is corrupting, it is a force for ill, it is "the devil's excrement" [24]. There are exceptions and rejections of this imaginary, of course, for example in communities in Norway or Texas, where oil is proudly imagined as the source of development or future prosperity [25,26]. But given the increasing consensus about the role of hydrocarbons in the climate crisis, the moral coding of oil money as evil is now dominant in most of the West and, increasingly, in international institutions set up under the till-now prevailing liberal geopolitical world order. The same coding applies to so-called "petrostates," those countries that derive the majority or overwhelmingly large amount of their revenue, directly or indirectly, from the sale of hydrocarbons. If oil money is evil, so too are petrostates.

Both ideas of "oil money" and the "petrostate" are premised on overly simplified understandings of political geography. They both hinge on a kind of spatial fixation that does not hold in the intensely globalized world system. Oil money, for example, does not stay "oil money" for long. As with any other commodity, the rents derived from oil sales are quickly moved through other parts of the economy – funding lives, infrastructures, and countless other goods and services. Attaching "oil" as an adjectival qualifier works to territorialize money, binding its essence to the material conditions of its origin. But in a world where commodities, finance, companies, experts, and workers move so readily across borders and across sectors, drawing boundaries around the "petrostate" or "oil money" is not particularly useful in understanding the geopolitics of energy finance today. As James Ferguson [27] describes it, "seeing like an oil company" requires attending to how capital from resource extraction does not seamlessly "flow" across borders, but often "hops, neatly skipping over most of what lies in between" (see also [28,29]).

But following oil money as it moves is not just a *spatial* question; it is also a *temporal* question. That is, if we readily acknowledge that oil money crosses borders and moves around the world through various circuits, at what point does oil money *stop* being "oil money"? Inspired by Anthony Smith's [30] reorientation in nationalism studies of the typical "what is the nation?" question as "*when* is the nation?", energy scholars might similarly ask, *when* is oil money? This is not an empty exercise in semantics: companies and countries dependent on the hydrocarbon industry are well aware of the stigma attached to oil money and have been working to "green" that wealth through strategic investments in energy transition and the sustainability sector more broadly [31]. Casting a critical eye on these investments is important because, as many scholars have shown, the idealized image of "energy transition" – of a world seamlessly moving from an era of dirty energy to a dazzling, utopian world of clean, green energy – is much more complicated and ethically-fraught than certain actors and institutions might try to suggest (see [32–40]).

Interrogating the practices involved in "greening oil money" is an important and needed exercise to advance energy research in the social sciences because it requires attending to space and time, while also assuming a critical approach to the idea of energy transition. *Transition* here is not understood as that utopian teleological vision of greening the planet with clean energy, but rather as a grounded analysis of how space and time are both used and constituted in the new ways that actors seek to recast revenues from "dirty" energy sources as being in the service of a "green" energy future. As this article shows, these practices are hugely diverse – including material and immaterial actions to both acquire new green credentials and to direct oil money in the circuits of financial and symbolic capital that underpin the entire world's energy landscape. Relevant actors may be operating at locally and individually within

certain institutions, companies, or countries, but greening oil money is ultimately a geopolitical project because it is inextricably tied to global circuits of finance. Greening oil money is thus a story of the local and the global, space and time, state- and non-state actors, and the unfathomably wide range of connections between them all.

Academic critiques of the idealistic energy transition idea notwithstanding, the storyline has substantial appeal in official rhetoric, consultant strategies, and sparkly corporate promotional materials. In large part, this is because it seems to offer a path out of crisis. "Climate crisis" is by now a common refrain in public discourse, but there are many ways that this crisis is understood by different people, institutions, and industries. For most oil industry insiders and their allies, the climate crisis is foremost an economic crisis. While they are progressively looking for financial diversification opportunities, they also understand that they can derive symbolic capital from expanding their energy transition activities and investments, and thus establish citable green credentials. That is, they have come to recognize the value of greening their oil money. In fact, finding ways to turn oil money green is coming to seem like an existential dilemma for these companies and oil-dependent countries like the UAE.

Companies and countries have many vehicles for greening oil money. In some cases, oil companies are reorganizing their firms to include alternative energy portfolios. In others, they are contributing to environmental sustainability projects through corporate social responsibility programs, charitable donations, or other ad hoc corporate giving programs, from the local level to the international. Some governments that derive large revenues from hydrocarbons pool the profits in sovereign wealth funds, such as those in the Arabian Peninsula or Norway, which are investing in renewables and sustainability research and technology. These investments, as well as similar new green finance initiatives, are linked with a growing recognition in the hydrocarbon sector about the threat that fossil fuel divestment efforts pose to their current business model. Asset management companies like BlackRock and major financial institutions like pension funds or the Norwegian sovereign wealth fund are increasingly wary of maintaining hydrocarbon sector investments in their portfolios, facing pressures from many corners to divest from oil and gas [41–44].

These divestment campaigns go hand-in-hand with new sustainable investment initiatives like green bonds (e.g. [45–51]). But as scholars working on the many intersections between sustainability and finance emphasize, it is rarely clear what can or should "count" as green – and who even gets to decide. Even the International Capital Market Association's Green Bond Principles (GBP), Liu and Lai [52] pointed out, have "no legal or financial liability if the proceeds from the issuance are not deployed for green purposes as advertised." As these authors suggest, the ambiguity of such labels leaves efforts to green finance to be seen as "highly performative." Yet they are still *doing* something. The corporate search for green credentials has fostered an entire ecosystem involving new channels of finance, nodes of expertise, moral economies, and networks of power. The remainder of this article examines one part of this ecosystem through greening initiatives in the United Arab Emirates – starting from the oil-funded government branding itself and emanating out through its national oil company, sovereign wealth funds, and various other investment schemes. In tracking the UAE's oil money through these circuits, we can begin to see how it turns that money green.

3. Emirati oil money: the financial circuits of green credentialism in the UAE

3.1. The United Arab Emirates in context

Local governments and businesspeople in the Arabian Peninsula have been intensively promoting the "energy transition" in the past decade – and the UAE is the unquestioned regional leader in this effort (the extensive research on this topic cannot be reviewed, but see, [18,20,22,31,53–73]). Despite the fanfare, however, the actual scale of renewable energy production remains low across the Gulf region. At the end of 2020, the installed power capacity of the entire GCC (Gulf Cooperation Council) bloc consisted of only 2.24 % renewable energy sources [74,75]. "Installed capacity" numbers are unreliable anywhere, but especially in the Gulf region, where many large utility-scale solar parks are not operational or are operating at minimal capacity due to widespread problems with keeping the PV arrays clean from dust [20]. Publicly available statistics about renewables in the UAE tend to obscure the extent to which installed capacity matches actual production. But looking at limited data from the UAE, it is clear that the country still runs on hydrocarbons. As of 2018, fossil fuels comprised 99 % of primary energy consumption in the UAE (natural gas 59 %, oil 40 %, coal 0.94 %, renewables 0.19 %), and 98 % of power generation (natural gas 98 %, oil 1.2 %, renewables 0.7 %) [64].

The statistical murkiness surrounding the UAE's renewable energy transition sits in stark contrast to the celebratory attention that is given to the government's favorite sustainability initiatives. In most official documents and public rhetoric, 2006 was a pivotal year. This was when the UAE sovereign wealth fund, Mubadala, began the Masdar Eco-City project near the Abu Dhabi airport, and founded Masdar-Abu Dhabi Future Energy Company. Masdar City was – and continues to be – an important symbol for the sustainable transition that the government has sought to promote as part of its effort to brand the UAE as ultra-modern and an attractive site for investors [20,60]. These aspirations were clearly articulated in the UAE's National Vision 2021, which includes sustainability as one of its six core pillars, explained as focusing on "improving the quality of air, preserving water resources, increasing the contribution of clean energy and implementing green growth plans" [76].

The 2021 plan has not yet been replaced by another country-wide "National Agenda," but different emirates of the UAE have issued a range of other development plans, which also promote the energy transition. For example, Abu Dhabi's Environment Vision 2030 is described as being designed "to preserve and enhance Abu Dhabi's natural heritage in the efficient use of resources and contributing to a better quality of life for all" [77]. The country-wide Energy Strategy 2050 gives more concrete targets, aiming to increase "clean energy" in the overall energy mix from 25 % to 50 % by 2050 [78]. The Dubai Clean Energy Strategy, meanwhile, sets that same target for the Dubai emirate at 75 % by 2050 [79]. The UAE government is also now loudly and proudly advertising the fact that it will host COP28, the yearly UN Framework Convention on Climate Change, in 2023.

A full discussion of the UAE's many sustainability institutions and frameworks is beyond the scope of this article, but their rapid proliferation points to the government's increasing embrace of environmental sustainability and energy transition ideals and benchmarking. This is often legitimated with reference to international environmental norms, but it is also positioned as a reflection of the current leadership fulfilling the legacy of the UAE's "founding father," Sheikh Zayed Al Nahyan, who is locally described as a champion of environmental protection and stewardship [20,80]. Hailing Sheikh Zayed's legacy is an important way for speakers, within the government and beyond it, to flag their nationalist credentials. This becomes even more important when proposing an important change in direction – such as moving away from the economy built on oil exports that Sheikh Zayed presided over developing. Now, a new nationalist story is needed in the UAE to adapt hegemonic international environmental scripts that articulate a "post-oil" future as the only viable path to modernity (Fig. 1). It is thus that in a 2015 speech, Sheikh Mohammed bin Zayed Al Nahyan, the Crown Prince and de facto ruler of Abu Dhabi, could ask: "In 50 years, when we might have the last barrel of oil…when it is ship abroad, will we be sad?" No, he argued, by thinking beyond oil and investing in other sectors, the UAE would "celebrate that moment" (quoted in [81]).

Mohammed bin Zayed and other Emirati royal family members are all keen to emphasize the modernity of the UAE, and pointing to their

Fig. 1. Image from a light show in the Emirates National Oil Company pavilion at EXPO 2020 Dubai, dramatically highlighting solar power as a new feature among many other icons of Emirati nationalism.
Source: Author, January 2022.

plans to move beyond oil is an important part of demonstrating that supposedly ambitious and progressive vision for their country's future. Yet officials are always careful to underscore that they are not abandoning oil and gas outright – as seen in the above quote from Sultan Al Jaber, where he emphasized the continued importance of the oil and gas industry in the energy transition. Similarly, in a 2021 editorial in the Atlantic Council's *Global Energy Agenda* publication, UAE Minister of Energy and Industry, Suhail Al Mazrouei, sought to relativize the very notion of the "energy transition." Worth quoting at length, he writes:

> Aiming for both an effective and fair response [to climate change] makes it essential to examine what is meant by "the energy transition" and design our approaches to support it. At its core, the energy transition calls for collective action towards social and environmental sustainability, underpinned by the Paris Agreement. While the energy transition includes elements of renewables, electrification, and distributed energy generation, balancing the elements of energy security and affordability to meet growing energy demand will necessitate different definitions of the energy transition in different parts of the world. These variations in energy strategies—coupled with the triple challenge—place oil and gas firmly in the energy mix of the future, particularly since, across all global future energy outlooks, we see a growth in demand for oil and gas. As a result, the broader transition will be made up of multiple transitions, a series of fundamental shifts towards cleaner and renewable energy, low-carbon and decarbonization strategies, higher levels of interconnection, and the rapid adoption of innovation and technology. [82]

Like Al Jaber, Al Mazrouei here adapts the familiar language of climate change, energy transition, and decarbonization to justify the continued growth of oil and gas. But his explicit articulation of a broader transition "made up of multiple transitions" is also telling because it reflects the plurality of prognoses for global energy futures within oil-dependent contexts. There is no consensus about the scope of the financial threat that a post-oil world order might involve, but a generational shift among leaders in oil companies or governments like the UAE means that this threat is being taken much more seriously today than even 10 years ago [62].

Emirati government figures know very well how dependent they are on oil money, and they are loath to give this up. And yet, beyond the symbolic gesturing toward introducing new climate-aware policies, stark economic realities lurk. The Emirati economy, like other oil-revenue dependent countries in the region, was badly hit after the 2014 collapse of oil prices. It was around this time that energy transition initiatives started to pick up pace, but primarily with the goal of curbing domestic consumption so as to maximize export profits [83–85]. Further, the economic stagnation in the last years has led local leaders and businesspeople to search for more ways to entice foreign investment, which have prominently featured various forms of sustainable finance. The skyrocketing of oil prices following the 2022 Russian invasion of Ukraine has changed the short-term calculus for some financial planners in the UAE government, but after 2014, diverse actors already began setting up a range of institutions and investment opportunities to capture "green" investment within their borders. The rest of this section will outline some of the main levers they have tried to pull to do so.

3.2. *Greening international finance*

Abu Dhabi Global Market (ADGM) is an international financial center, with a jurisdiction covering the entire 114 ha of Abu Dhabi's

luxurious Al Maryah Island. It was founded by Federal Decree in 2015 and encompasses three financial authorities – a Registration Authority, a Financial Services Regulatory Authority, and ADGM Courts based on English common law. It was initially set up to attract new investors to Abu Dhabi or, as it is described on the official website, to serve as a "catalyst of growth" and to contribute to Abu Dhabi's "ambitious" development plans [86]. ADGM staff, consisting mostly of finance sector workers recruited from the United Kingdom, were given wide latitude for how to bring the center to life. From anonymous interviews in 2019 and 2020, I learned that after several years of trial and error, ADGM was seeking ways to differentiate itself from the already-established Dubai International Financial Centre. It thus chose to launch its "sustainable finance agenda" in 2019, best summarized as an effort to develop a sustainable finance "ecosystem" within the UAE, overseen and stimulated by ADGM's regulatory bodies.

ADGM announced its Sustainable Finance Agenda with a maximum-visibility launch campaign at the 2019 Abu Dhabi Sustainability Week, during its inaugural Abu Dhabi Sustainable Finance Forum and with the unveiling of the Abu Dhabi Sustainable Finance Declaration [87]. This flurry of firsts was presided over by Sheikh Hamed bin Zayed Al Nahyan, Chairman of Crown Prince Court and Managing Director of Abu Dhabi Investment Authority (ADIA) – one of the country's largest and most important sovereign wealth funds. The declaration, signed in his presence and with various other government figures, is a remarkable testament to the greening of Emirati nationalism. The one-page declaration begins thus:

We, the undersigned ACKNOWLEDGE that –

- The UAE and the Emirate of Abu Dhabi are committed to addressing climate change and the pursuit of a sustainable growth pathway, as demonstrated in the UAE 2021 Vision, the UAE Green Agenda 2015–2030, and the launch of the Dubai Declaration on Sustainable Finance in 2016;
- Climate change affects all economic sectors and all segments of society;
- Meeting the United Nations Sustainable Development Goals (SDGs) are priorities that will require governments, regulators and the private sector to work together;
- Sustainable finance plays a key role in the achievement of these objectives and is gradually changing entire economic sectors worldwide [88]

The text then outlines the signatories' commitment to collaborating "to create a framework for fostering and integrating green and sustainable investments in the Emirate of Abu Dhabi, the UAE and the wider region" – and much more. The initiative was developed under the auspices of the Ministry of Climate Change and Environment, the Central Bank, and the Securities and Commodities Authority. According to the ADGM website, which is targeted at recruiting more signatories beyond the current count of 59, eligible groups include financial institutions, institutional investors, government agencies, and essentially any company or organization involved in the sustainable economy [88]. It is worth emphasizing that these investment schemes are *not* about charity – they are about creating business opportunities. In November 2021, the UAE's Abu Dhabi Fund for Development did launch an "Energy Transition Accelerator Financing" program, together with the International Renewable Energy Agency, IRENA, to finance renewable energy projects in the developing world [89]. But this kind of financing is not what ADGM or any of the sovereign wealth funds discussed below are interested in. They are most concerned with profits, not patronage.

Other elements of ADGM's Sustainable Finance Agenda include the Sustainable Finance Forum, which is held each year during Abu Dhabi Sustainability Week, and which I attended in person in 2020 and virtually thereafter (see [90,91]). The event is full of glitz and glamor, including brief, almost cameo-like appearances of important dignitaries from the UAE and overseas. It also typically includes some kind of new initiative being unveiled, which I observed with the UAE Guiding Principles of Sustainable Finance launch in 2020. As Fig. 2 suggests, with the principles sponsors and supporters being flanked by two large Emirati flags, this event and much of the other work around developing a sustainable finance ecosystem in the UAE is constantly and loudly framed as a point of national pride and a celebration of Emirati progressive, visionary, climate-aware modernity [20,61]. This is clearly articulated by the ADGM Chairman, Ahmed Jasim Al Zaabi, in an report on ADGM's ESG (Environmental, Social, and Governance) initiatives through its new International Sustainable Finance Centre. There he emphasizes the much-touted point that the UAE was the first Gulf country to announce a net-zero target, and that ADGM's work at the "forefront" of the sustainable finance industry is making it a "global centre for green finance" [92].

Almost none of the ADGM documents and promotional materials reference the central role of the oil industry and oil money in the UAE. In the ESG report just noted, however, this issue is briefly mentioned as a validation of the importance of ADGM's work:

> Abu Dhabi, like other GCC economies, is reliant on hydrocarbons revenue. In this context, Abu Dhabi's private and public players are looking at ways to boost the development of carbon capture and storage technologies as a tool to reduce carbon emissions and produce blue hydrogen, as well as to speed up the adoption of solar-based or green hydrogen. ADGM helps to channel funds towards such transformational endeavours through its sustainable finance ecosystem. [92]

The "channeling" of funds suggested here is described in this context as ADGM linking investors "to the region's wealth." This includes an overview of the country's high international economic standing, Abu Dhabi's 20,000 high-net-worth individuals, and a list of Abu Dhabi's "leading public investors," which are three of the UAE's large sovereign wealth funds discussed below (ADIA, Mubadala, and ADQ) [92]. The lion's share of this wealth, as well as the funding to establish ADGM as an institution, is in one way or another derived from the oil industry. It is this oil money that ADGM's Sustainable Finance Agenda is actively working to green.

Yet ADGM is well aware of the "greenwashing" critique, which is often lobbed not just at the UAE but also the sustainable finance sector in general. This is what the ESG effort is said to be combatting – a dedicated section of the report describes this as one way that "ADGM's ecosystem enables multilevel engagement to prevent greenwashing" [92]. ADGM is not spearheading any kind of mandatory or transparent ESG reporting, but rather suggest that ADGM and other Gulf region regulatory authorities are "weighing" the need for such mandates, as well as how to standardize reporting and third-party verification for the future. Here, they come back to the argument that each country and region has a different set of issues to deal with when considering the energy transition, explaining:

> The Paris Agreement recognises a principle of "common but differentiated responsibilities and respective capabilities" in pursuit of climate goals, which reflects different national circumstances. Therefore, when establishing the UAE sustainability taxonomy, ADGM and its partners are taking into account the transition challenges inherent to a hydrocarbons-dependent economy. [92]

Their sustainable finance projects are thus said to be specially targeted at encouraging the energy transition by lending support to the "hydrocarbons-dependent economy" and capitalizing "on the global attention on a rapidly changing region to attract green asset issuers and investors [92]. According to ADGM's institutional logic, its Sustainable Finance Agenda is not "greenwashing" with the morally bankrupt connotations that term carries. Rather, they position the program as a laudable effort to green the UAE's oil money.

Fig. 2. ADGM Sustainable Finance Forum at the World Future Energy Summit, Abu Dhabi.
Source: Author, January 2020.

3.3. Greening sovereign (oil) wealth

Sovereign wealth funds (SWFs) are investment funds controlled by sovereign governments, which collect revenue from state-controlled assets. Most often, these funds are used to pool money from natural resource sales, with the idea of investing for the benefit of future generations, promoting the government's developmental objectives, and/or serving as an economic stabilization device [93]. In large part because they are not subject to the same transparency regulations of other global financial investment vehicles, their size and scope has exploded internationally in the past two decades – and especially in the Arabian Peninsula [94–96]. Most Gulf countries have a single primary fund, such as the Qatar Investment Authority, the Kuwait Investment Authority, or Saudi Arabia's Public Investment Fund. These consolidated funds typically have a wide range of subsidiaries, as well as holding large stakes in otherwise private companies.

In the UAE, this subsidiary and investment model is the same as elsewhere in the Gulf, but there are many more influential SWFs. As a federation of emirates, the UAE's sole federally-controlled fund, the Emirates Investment Authority, only ranks 20th in the world in terms of assets, whereas the other higher-ranking UAE funds are all based in the emirate of Abu Dhabi: ADIA, the Abu Dhabi Investment Authority (ranked 4th in the world), Mubadala Investment Company (13th in the world), and ADQ, Abu Dhabi Developmental Holding Company (19th in the world) [97]. The reason for the prominence of Abu Dhabi funds is simple: the emirate controls approximately 92 % of the UAE's oil reserves. Thus, to understand the greening of oil money in the UAE, it is essential to consider the role of the Abu Dhabi funds – ADIA, ADQ, and Mubadala. Indeed, they have all been active players in the process, albeit in different ways.

ADIA is the largest SWF in the UAE, as well as the least transparent. Like all institutions, some SWFs take a more proactive approach to public relations and release extensive information on their website and to the media. ADIA is not among this group. However, sustainability and the energy transition are topics that the fund is publicly promoting, evident in how it now represents sustainable investing and renewable energy portfolios. On its minimalist website, this is explained as part of ADIA's role as a "long term, responsible investor" that is guided by the challenges and opportunities of "major global trends" – notably including climate change [98]. For example, in 2017, ADIA participated in the "One Planet Summit" on climate-related finance in Paris, which resulted in a working group of six SWFs that promised to work together to "promote the integration of climate change analysis in the management of large, long-term and diversified asset pools" [98]. That initiative has since expanded to include 13 additional funds, and continues to tout the important role of SWF financing the energy transition [99,100].

Beyond its founding member role in the One Planet network, ADIA's other green credentials are rather slim – though it highlights its investments in several renewable energy projects in the United States (Arevon Energy; Great River Hydro), UK (MGREF1 windfarm); India (Greenko; ReNew Power), and Singapore (Equis Development) – all noted only in the fine print to be "minority" shares [101]. ADIA has announced various plans to increase its green investing, but has largely failed to use this as a PR opportunity before then dropping them (e.g. [102]). This PR game is common among the large Gulf funds [103], and while this may not seem to be part of the effort to green the UAE's oil money, it is because media coverage about the fund's supposed green credentials is in fact their primary objective. And rarely will readers in distant places follow up to confirm whether the projects actually materialized.

ADQ, by contrast, has been more active than ADIA in building and broadcasting its green credentials. This is made clear in a recent ADQ paper, "Journey to Clean, Sustainable Energy," which opens by noting that the global energy transition "presents huge opportunities for economic growth, millions of new jobs, and the emergence of game-changing technologies" [104]. The associated press release announcing the report quoted ADQ's Executive Director for Energy and Utilities, Hamad Al Hammadi, as saying:

> Early investment in clean energy has already paid dividends, and there are opportunities to capitalise on the UAE's clean energy transition and create value for future generations. Our time is now to accelerate the journey to clean, sustainable energy to ensure we can collectively reach the finish line in time to ensure a more equitable, greener and cleaner future for all (quoted in [105]).

ADQ's managers have developed several programs to give life to this

inspirational story from the top, which have focused developing a clean energy certificate program, investing in hydrogen and carbon capture technologies, and investing in "large-scale infrastructure projects to increase renewable and clean energy sources" [104].

ADQ has also started to promote sustainable finance in the last few years. In late 2021, they announced a new ESG policy, "to promote clean technology and other environmentally friendly efforts" and "to support its efforts as a sustainable investor to accelerate value creation" [105]. Or, as the Managing Director and CEO, Mohamed Hassan Alsuwaidi, explained it, "As part of our mandate to create value for our strategic partner and shareholder, the Abu Dhabi Government, we are committed to being a sustainable investor for the benefit of future generations" [105]. This lofty rhetoric closely matches the language of Al Hammadi and the ADGM's sustainable finance agenda discussed above, which highlights the close alignment of priorities across the broader Abu Dhabi finance "ecosystem" to turn the UAE's oil money into something green. These actors are not simply copying one another: they are actually working together through various sustainability-themed projects, which then become an important site for cross-sectoral exchange among those who manage the UAE's oil money. This is illustrated in the following section by ADQ's recent work on a large "green" hydrogen initiative with ADNOC and Mubadala [106] – the SWF with the most extensive greening initiatives in the UAE.

Like Abu Dhabi's other SWFs, Mubadala invests the emirate's oil money broadly, but its greening efforts are channeled through its influential subsidiary, Masdar Future Energy Company. Established in 2006, Masdar's mission is, "To help maintain the UAE's leadership in the global energy sector, while supporting the diversification of both its economy and energy sources for the benefit of future generations. […] We also deliver knowledge and industry platforms to stimulate further growth in the wider renewable energy and clean-tech industry, creating new revenue streams for the UAE over the long term" [107]. When Emirati officials want to tout the country's sustainability credentials, they will almost without fail point to Masdar's local and global significance, as well as its role as a "first-mover" in promoting the energy transition in the MENA region. Extending well beyond the Middle East, Masdar is also a point of *international* pride because it has hosted the global headquarters of IRENA, the International Renewable Energy Agency, since 2015.

The Emirati vision for Masdar is not just about environmental aspirations. Like the other actors in the Emirati sustainability sector, its goals are fundamentally about creating value, jobs, and economic growth into the future. This was seen at the Atlantic Council's Global Energy Forum, for example, where the Masdar Chairman Sultan Al Jaber explained in 2021:

> Those who know the UAE, and those who know the UAE well, know that we have always made a positive contribution to helping address global challenges, and the challenge of climate change is no different. This is exactly the narrative or the ethos that guided us to launch Masdar about fifteen years ago as a clean-technology hub that today is the permanent home of the International Renewable Energy Agency, IRENA. […] We not only talk the talk; we walk the walk. And we have seen firsthand how smart investment and diversified energy mix can pay off (quoted in [1]).

Likewise, Musabbeh Al Kaabi, Mubadala's CEO of UAE investments, explained at the same event in 2022:

> Now, when it comes to the economic diversification, you know, the UAE embraced this vision back in 2007. We have created sectors from nothing. And we're very proud of what we achieved. Mubadala was spearheading many of these initiatives, including Masdar. So Masdar established in 2006, when many people, not only in the region but globally, were very skeptical about […] the potential of renewable energy going forward. And on top of that, an oil-exporter country like UAE to commit to the renewable, that was very bold step at that time, very progressive. And I think it comes with a very strong conviction (quoted in [108]).

Masdar sponsors or otherwise participates in a large number of projects, which help with the UAE government's green branding efforts, including the Abu Dhabi Sustainability Week. Some of these are mostly just PR, such as the Manchester City football club campaign that it sponsored during the 2022 Sustainability Week [109]. But its initiatives extend well beyond attractive sports PR: the company is actively working to green the UAE's oil money through its developmentalist initiatives framed around economic diversification and preparing the oil-exporting country for the future.

The challenge, of course, is whether this lofty vision can actually escape the country's path dependent political economy tied to oil. This rift is essentially what Al Jaber was trying to get beyond in the quote that opened this article, where he emphasized the important role of the oil and gas industry in the energy transition. For him, Masdar can and should be a bridge. In the same Atlantic Council's exchange he emphasized that both the UAE's leadership and Masdar believe "that partnership not just between countries, but between industries—including the oil and gas industry—is actually crucial to achieving our collective climate […] objectives and climate change goals" (quoted in [1]). This is not a new narrative for Masdar, but as we see in the following section, it has taken a new shape in the last few years, based on deepening financial ties with the national oil and energy companies as they work together more intently to turn the UAE's oil money green.

3.4. Greening the national energy companies

The UAE's oil reserves are nearly all controlled by the state-owned Abu Dhabi National Oil Company (ADNOC), making it the most important company in the hydrocarbon sector in the UAE. Various state-owned companies also manage different elements of the country's energy infrastructure and distribution channels, such as TAQA (Abu Dhabi National Energy Company), EWEC (Emirates Water and Electricity Company), and DEWA (Dubai Electricity and Water Authority). EWEC and DEWA both participate in a range of energy transition projects in the UAE, but TAQA's work (in the fields of oil and gas exploration, production, and storage, pipelines, power generation, and water desalination) has been far more international. In the UAE, this immediately sets it out as more prestigious because of its assumed role in branding the country abroad. But TAQA also carries weight domestically because it is majority owner of the massive Noor Abu Dhabi solar project – itself a sustainability spectacle of great significance for the emirate's leadership. Further, TAQA has joined ADNOC in key prestige projects related to the energy transition within the past few years. They are also connected through their executive boards and leadership, uniting the most prominent figures in UAE's oil and finance sectors. ADQ is TAQA's majority shareholder, for example, and its Executive Board chairman is also the ADQ CEO, Mohamed Hassan Alsuwaidi. Other TAQA board members represent current and past leaders or board members of ADNOC, EWEC, ADQ, ADIA, Mubadala, Masdar, and more [110].

Both ADNOC and TAQA have adopted the language of energy transition in their corporate presentation. On this point, TAQA's mission statement is simple and clear: "Be a low carbon power and water champion" [110]. ADNOC, for its part, adopted a 2030 Sustainability Strategy in 2020, and now proudly advertises its "commitment to the environment" as being inspired by the country's first leader: "Our Founding Father, His Highness Sheikh Zayed bin Sultan Al Nahyan, was an early leader in sustainable energy and had the foresight to balance development of our natural resources with conserving of the environment. We continue to follow in his footsteps to create energy for life while preserving nature for future generations" [111]. The oil company's sustainability strategy consists of six pillars encompassing environmental, social, and business sustainability. ADNOC describes the strategy as "extending our legacy as a responsible producer of oil and gas so

that we can continue to maximize value for our nation" [112], and it includes funding feel-good projects like saving the sea turtles (nearly always featured in its sustainability materials, as in Fig. 3), to industry-pleasers like carbon capture.

Tellingly, ADNOC's Business Sustainability pillar is given the most attention in its sustainability plan, highlighting fears among investors and hydrocarbon-rich countries about oil companies losing value in the era of energy transition. Given the growing strength of this post-oil anxiety within the industry, greening the company's oil money is logically positioned as a part of its climate-aware "risk management" and savvy business planning. In 2021, a series of these savvy initiatives hit the UAE headlines. First, in January 2021, the Abu Dhabi Hydrogen Alliance was announced, with the idea to unite ADNOC, Mubadala, and ADQ "to establish Abu Dhabi as a trusted leader of low-carbon green and blue hydrogen in emerging international markets" and "to build a substantial green hydrogen economy in the UAE" [106]. Then, in mid-November 2021, a large new hydrogen energy partnership between ADNOC and TAQA was announced. Two weeks later, a scheme for ADNOC, TAQA, and Mubadala to unite their funds to transform Masdar into a "clean energy powerhouse" was announced.

The hydrogen initiatives deserve far more discussion than space allows here (but see [62]), though it is worth noting that like the other projects being promoted to green the UAE's oil money, the discussions around hydrogen are more about financial objectives than the environment per se. This is eminently clear from all the governmental officials' statements, but as TAQA board chairman and ADQ CEO Alsuwaidi explained:

> Forming the Abu Dhabi Hydrogen Alliance is an imperative that would deepen the hydrogen energy economy in the UAE allowing it to meet the rapidly growing global demand for hydrogen worldwide. With Abu Dhabi's largest portfolio of energy and utilities investments, ADQ will play an important role in the transition to cleaner energy while shaping the future of this economic cluster leading to Abu Dhabi's longer-term sustainability. [106]

The subsequent hydrogen announcement in November 2021 – to create a joint venture between ADNOC and TAQA – was accompanied by similar language from Sultan Al Jaber, the ADNOC and Masdar executive we met above:

> Today's strategic partnership between two Abu Dhabi energy giants future-proofs ADNOC's business model, creating compelling business and commercial opportunities, as we fully embrace the energy transition. This innovative and collaborative venture is a bold new initiative, as it combines both companies' respective areas of expertise and paves the way for our viable entry into the clean energy space. This platform will enable ADNOC to capitalize on the many renewable energy and hydrogen opportunities, both locally and globally. (quoted in [113]).

The idea of "future-proofing" the "energy giants'" business model does not just apply to these corporate actors. As we can see from all the cross-cutting alliances between energy companies, government, and SWFs, this is also about "future-proofing" the UAE's economy. Greening the oil money is, as I suggested above, increasingly seen as an existential task of ensuring the developmentalist vision that is so important to government leaders.

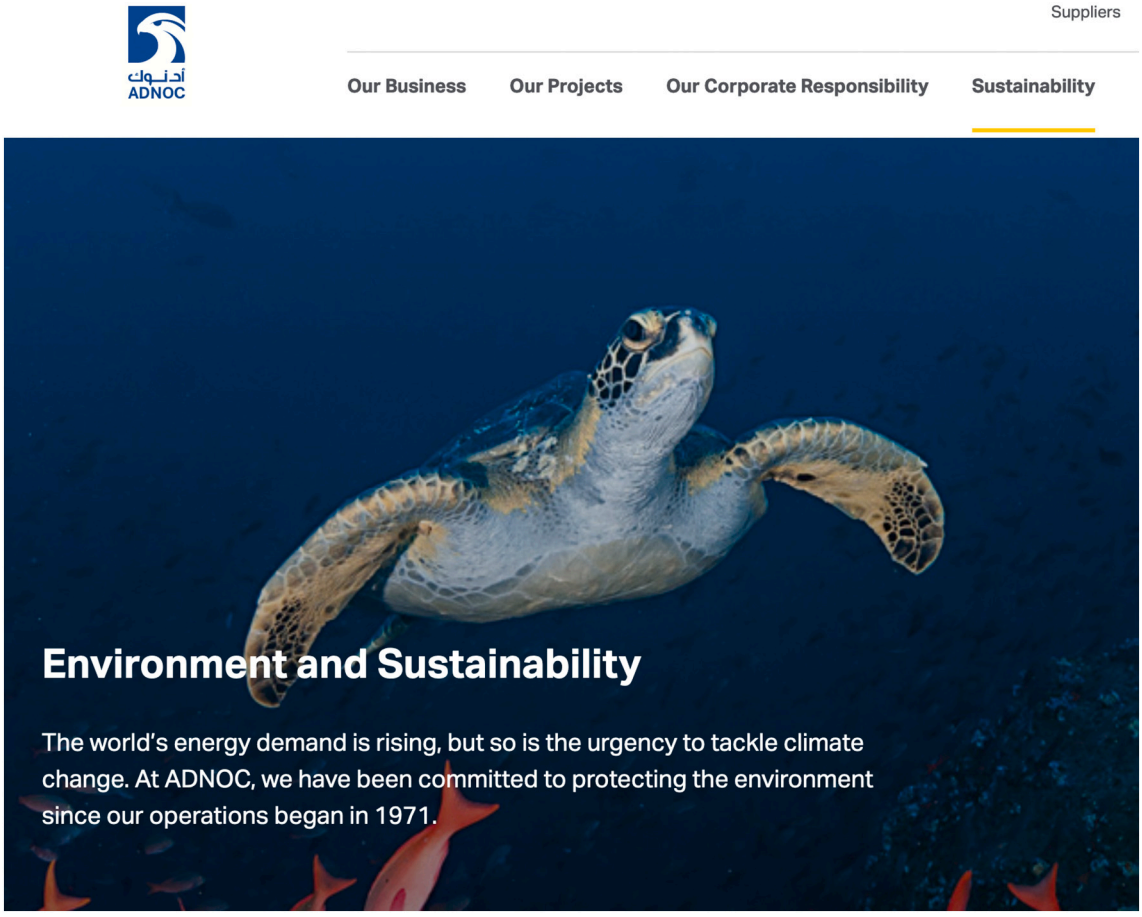

Fig. 3. Sea turtle conservation efforts highlighted on ADNOC's Sustainability Agenda webpage.
Source: ADNOC 2022a, fair use.

The consolidation of oil and renewable energy interests in the UAE became even more obvious in December 2021, when a partnership between ADNOC, TAQA, and Mubadala/Masdar was announced by the Abu Dhabi Media Office by Tweet (Fig. 4) and presided over by the Abu Dhabi Crown Prince, Mohamed bin Zayed [114]. The idea is to consolidate ADNOC and TAQA's hydrogen and renewable energy portfolios in the hands of Masdar to reach 50 MW renewable energy capacity by 2030 – helping to "supercharge" the company's growth [115,116]. But the deal is fundamentally an investment deal to bring the national energy companies ADNOC and TAQA into control of Masdar, which was previously solely owned by Mubadala. More specifically, the shareholder structure would be split along two different axes: (a) Masdar's renewable energy business: TAQA 43 %, Mubadala 33 %, ADNOC 24 %; and (b) Masdar's green hydrogen business: ADNOC 43 %, Mubadala 33 %, TAQA 24 % [115]. By recasting Masdar as Abu Dhabi's "renewable energy powerhouse," the two most influential oil and energy companies have been given a new way to green their oil money and meanwhile continue their normal oil extraction and transport operations.

Indeed, on the same day of December 1, 2021 when this partnership was being announced, the ADNOC Board announced a US $127 billion capital spending plan for 2022–2026 for its oil and gas operations, *and* approved a "New Energies Strategy" to "capitalize" on renewable energy, hydrogen and "other lower carbon" energy [117]. The New Energies Strategy is like the other initiatives discussed here – it is a way for ADNOC to hedge its oil bets with the glimmering possibility of a lucrative alternative energy future, without giving up its commitment to crude. Limiting investment in oil and gas development, Mubadala's CEO Khaldoon Al Mubarak loudly declared in January 2022, would be a "mistake": "The speed of what we need to do to decarbonise and to invest in these new sources of energy takes time. It will require incredible capital, it requires incredible energy, incredible organisation and incredible regulatory changes. A lot needs to happen – and is happening – but it has to happen in parallel and as much as possible we need to organise it" (quoted in [118]). So while the beneficiaries of Emirati oil money may want to green it, they also want to maintain a financial circuitry that allows them to keep the oil and the revenues flowing. The increasing cooperation between the UAE's national oil and energy companies with the country's "future energy" pioneers and green financiers exemplifies the hydrocarbon-dependent vision of the UAE's post-oil future that Al Mubarak is advocating – it is a transition designed not to abandon the UAE's oil-based system, but to creatively and systematically prolong its life.

4. Conclusion

For people committed to environmental protection as a good in itself, it is easy to be dismissive of how oil insiders are seeking to cultivate new green credentials and green their oil money. Yet by investigating these

Fig. 4. Tweet announcing the ADNOC, TAQA, Mubadala "clean energy powerhouse" initiative.
Source: Abu Dhabi Media Office 2021, fair use.

efforts as geopolitical practices, we can begin to understand them as part of a larger effort to control the energy transition – in a more and less authoritarian fashion. Several years ago, when I first started attending the Atlantic Council's Global Energy Forum – an event catering to the oil and gas industry and its governmental allies – I sat through many sessions where oil executives would openly quarrel about whether their companies really should be getting involved in renewable energy projects. Some supported diversification as the way forward, while others adamantly opposed to it, declaring that their job was to get oil out of the ground and nothing else. But by around January 2020, the voices of the latter subsided and I watched most industry insiders start to accept the inevitably of reconciling their business to the reality of a post-oil future.

Grudgingly or otherwise, financial questions have been front of mind for most of these actors, as they fear lack of investment, active divestment, stranded assets, and more. These are now recognized as existential business questions for the oil companies, but as Tobias Zumbrägel [73] reminds us, the future of oil is also an existential question for governments that have staked their legitimacy to fossil fuel extraction. Like the companies, hydrocarbon-rich governments want to retain the benefits of the oil money, while also removing the moral taint now associated with the industry. By not taking "oil money" for granted as something fixed in space or time, we can begin to see how this process works. The UAE case illustrates the importance of financial institutions and networks in shaping how corporate and government leaders seek to both retain control over energy systems, over their profits, and over the post-oil future itself. The tools they have to green their oil money are many and their financial advisors are hard at work finding more creative opportunities.

But actors in the UAE are not alone – their sovereign wealth funds and many others in oil-rich states around the world are following the model of the Norwegian government fund, which has transformed its oil revenues into a fabulously successful investment fund free of the moral taint of "dirty" fossil fuels. And as major international oil companies like BP and Total lead the way in investing in renewable energy and otherwise greening their image, other oil producers around the world are following suit, seeking to turn their oil money green too. With these changes comes a new set of questions about the geopolitics of energy finance "going green." And it returns us to a question I posed at the outset: at what point does "oil money" stop being "oil money"? There is no easy answer, but the very act of asking directs our attention to the essential political and economic questions that are needed to move beyond the idealized fantasy of energy transition leading us to a green utopia, on the one hand, and the cynical greenwashing dismissals, on the other. This question also denies the possibility of a simplistic assumption that some companies and countries are innocent and others are guilty – for "oil money" courses through nearly everything in the contemporary world [119]. The more difficult ethical questions about the energy transition, then, are not about *whether* it should happen, but *who* is participating in shaping it. Unsavory as it may be for some passionate climate change activists, understanding how this works today demands understanding the diverse and places and spaces where these questions are debated – even if that is in a room full of hydrocarbon industry representatives.

Declaration of competing interest

I am not aware of any conflict of interest.

Data availability

The data that has been used is confidential.

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