Preparing for UAE COP 28: Gulf Countries' Net-Zero and Climate Action Roadmaps

At the end of 2023, the United Arab Emirates (UAE) will host the Conference of the Parties (COP), the decision-making body responsible for monitoring and reviewing the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) (UAE COP 28).

COPs are aimed at fostering a sense of shared responsibility and setting a path for nations to tackle climate change collectively. The <u>Paris Agreement</u>, the breakthrough accord reached in 2016 following COP 21, set goals to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and to pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels."

The understanding set out in the Paris Agreement is that in order to limit the global warming to 1.5°C, greenhouse gas (GHG) emissions must peak before 2025 at the latest and decline 43% by 2030. Each nation that ratifies the Paris Agreement pledges its own nationally determined contribution (NDC), which is to be revised on a five-year schedule, to reduce GHG emissions and to adapt to the effects of climate change.

UAE COP 28 is seen as a halfway point between the Paris Agreement and the 2030 deadline for GHG emissions to decline.

With the Middle East in the spotlight for UAE COP 28, the Gulf Cooperation Council (GCC) nations have reaffirmed their full support for UAE COP 28 and emphasized its importance in tackling climate change following a ministerial meeting in June 2023.

GCC Commitments Under Paris Agreement

The UAE as well as all other GCC members adhered to the UNFCCC and ratified the Paris Agreement. Their status under the Paris Agreement is that of "Non-Annex I Parties" in recognition that they are countries that rely heavily on proceeds from fossil fuel production and commerce. (The UNFCCC divides countries into three main groups according to differing commitments.)

Even as Non-Annex I Parties, several of the GCC countries pledged ambitious NDCs and have begun undertaking various net-zero initiatives, signaling a significant step by the GCC countries toward acknowledging and addressing climate issues.

The UAE was among the first Middle Eastern nations to ratify the Paris Agreement and even submitted its <u>intended NDC</u> in 2015 ahead of COP 21 in Paris.

See Annex I for a high-level summary of the GCC countries' commitments under the Paris Agreement.

Beyond Paris: Net-Zero and Climate Change Action in Gulf Region

In addition to their Paris Agreement commitments, many GCC countries have been working on carbon-reduction initiatives and the diversification and expansion of their sustainable energy practices.

The <u>GCC countries' plans</u> for the transition of the energy sector are primarily based on three pillars of equal importance: (1) ensuring energy security, (2) promoting economic prosperity for all countries, and (3) reducing GHG emissions. The GCC countries have specific and sometimes different regional drivers economically, socially, and environmentally. Their primary focus in terms of net-zero and climate change actions has predominantly been on phasing out emissions rather than reducing the production of fossil fuels.

Notably, Saudi Arabia, the UAE, and Oman have announced net-zero and decarbonization strategies that rely on a mix of traditional initiatives (such as the increased use of renewable energy and a focus on energy efficiency implementation), with forward-looking low-carbon solutions (such as hydrogen and carbon capture and storage projects) being developed.

See Annex II for highlights on the net-zero and climate change initiatives being implemented in the GCC countries.

UAE's Path to Net Zero

UAE Net Zero by 2050 is a strategic initiative, aligned with the Paris Agreement, to achieve net-zero emissions by 2050. The Ministry of Climate Change and Environment (MOCCAE) is leading the efforts to implement UAE Net Zero by 2050.

The whole of 2023 has been declared the "Year of Sustainability" for the UAE, with a yearlong series of initiatives and events focused on sustainable development.

Ahead of UAE COP 28, the UAE updated the <u>UAE Energy Strategy 2050</u> by setting goals for 2030 and energy strategies to achieve net zero by 2050. In addition, Abu Dhabi National Oil Company (ADNOC) <u>recently announced</u> its intention to accelerate its net-zero emissions target to 2045 instead of its previous commitment for 2050.

In July, the UAE submitted its Third Update of Second NDC, setting absolute emission reduction targets (compared to 2019 as the base year) and replacing the previous commitment to reduce emissions with reference to the business-as-usual (BAU) scenario. Further, 2030 net GHG emissions will be reduced from an expected 208 MtCO2e, as previously announced in the Updated Second NDC in 2022, to 182 MtCO2e. This represents an absolute emissions reduction of 19% by 2030, compared to the 2019 base year level. If expressed in terms comparable to BAU, this represents a 40% decrease from estimated 2030 emissions.

The Third Update of the Second NDC comes in line with a number of targeted policies and strategies, such as the <u>UAE Hydrogen Leadership Roadmap</u>, a comprehensive national blueprint to support domestic, low-carbon industries, contribute to the country's net-zero ambition, and establish the country as a competitive exporter of hydrogen. Another example is the <u>Abu Dhabi Climate Change Strategy</u>, which is focused on two pillars: (1) mitigation, involving reducing climate emissions while maintaining economic growth, and (2) adaptation, which refers to enhancing the resilience and agility of key economic sectors against climate risks.

Further, the Abu Dhabi Global Market (ADGM), the international financial center in Abu Dhabi, has partnered with <u>AirCarbon Exchange (ACX)</u> to create the world's first fully regulated carbon trading exchange and carbon clearing house in Abu Dhabi. The ADGM also announced the implementation of one of the first sustainable finance frameworks in the region, which will help

channel capital into projects and activities that advance the country's transition to net zero. For more information, refer to our LawFlash, <u>Sustainable Finance: A Strategic Priority for the UAE</u>.

In support of green infrastructure and clean energy projects around the world, the UAE has invested in renewable energy ventures worth approximately \$16.8 billion in 70 countries. It has also provided more than \$400 million in aid and soft loans for clean energy projects.

Looking Toward UAE COP 28

With UAE COP 28 on the horizon, expectations are high for further commitments and progressive actions. The "COP 28 effect"—which represents an opportunity for a paradigm shift—is already noticeable in the region. The GCC countries are ramping up their climate efforts, reflecting both an understanding of the urgency and the opportunity that UAE COP 28 presents.

As discussed above, the UAE, as the host of the preparatory meetings for UAE COP 28, is showcasing its commitment to facilitating a global climate dialogue and championing sustainable development. Other GCC countries, too, are strengthening their climate ambitions.

The eyes of the world will be on the UAE and other GCC countries as UAE COP 28 approaches. While the challenges are substantial, so too are the opportunities. Increased investment in renewable energy, further development of low-carbon solutions in hydrocarbon extraction and refining, and greater regional cooperation could position the GCC as a leader in climate action.

The COP 28 effect is more than an impetus for change; it is also an opportunity for the GCC countries to step into a global energy leadership role and to write a more sustainable narrative for the region.

For an overview of the GCC countries' commitments under the Paris Agreement and their current net-zero and climate change initiatives, see these annexes.

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Annex I - GCC Countries' Commitments Under the Paris Agreement

GCC Country	Paris Agreement Status	Nationally Determined Contribution (NDC)
Bahrain	Signature: 22 April 2016 Ratification: 23 December 2016 Non-Annex I party	Intended NDC, 2015: Bahrain put forth adaptation actions, including mitigation co-benefits which can contribute to the Paris Agreement goals, such as its National Energy Efficiency Action Plan (NEEAP) and National Renewable Energy Action Plan (NREAP). NDC, 2021: Bahrain put forth updated adaptation
Kuwait	Signature: 22 April 2016 Ratification: 23 April 2018 Non-Annex I party	actions, including additional mitigation co-benefits. Intended NDC, 2015: A number of projects aimed at avoiding increased emissions through energy sector projects and development plans, which contributes most of Kuwait's GHG emissions, including the production of clean fuel for power plants, constructing a new refinery to replace the state's oldest refinery, which will meet international environmental standards, energy production from municipal solid waste, and solar and wind renewable projects.
		NDC, 2021: Pledged a reduction of GHG emissions by 7.4% in 2035 relative to BAU— capping total GHG emissions at 131,715,950 MTCO2e by 2035, resulting in a reduction of 10,574,800 MTCO2e. Kuwait's net GHG emissions in 2035 relative to BAU are estimated to be a total of 142,290,750 MTCO2e.
Oman	Signature: 22 April 2016 Ratification: 22 May 2019 Non-Annex I party	Intended NDC, 2015: Pledged to control its expected GHG emissions growth by 2% to be 88,714 Gg from 2020–2030; in the absence of intended NDC, GHG is expected to be 90,524 Gg in 2030. Second NDC, 2021: Pledged 7% reduction compared to BAU scenario, which is predicted at about 125.254 MTCO2e. 4% of the GHG reduction commitment will be based on national efforts, and the remaining 3% would necessitate grants and other forms of concessional financing and assistance with capacity building and institutional strengthening, as well as access to appropriate technologies.
Qatar	Signature: 22 April 2016 Ratification: 23 June 2017 Non-Annex I party	Intended NDC, 2015: Committed to a number of adaptation actions with mitigation co-benefits, including in water management, infrastructure and transportation, and waste management. Updated NDC: Qatar has pledged to reduce 25% of its GHG emissions by the year 2030, relative to the baseline scenario.

GCC Country	Paris Agreement Status	Nationally Determined Contribution (NDC)
Saudi Arabia	Signature: 3 November 2016 Ratification: 3 November 2016 Non-Annex I party	Intended NDC 2015: Committed to a number of measures expected to result in significant annual mitigation co-benefits of up to 130 million tons of CO2eq by 2030. Updated NDC, 2021: Saudi Arabia has pledged to reduce and/or avoid GHG emissions by 278 million tons of CO2eq by 2030 with the year 2019 designated as the base year for this NDC. The updated NDCs are more than a two-fold increase in reduction pledge versus its initial NDC.
UAE	Signature: 22 April 2016 Ratification: 21 September 2016 Non-Annex I party	Intended NDC, 2015: The UAE submitted its intended NDC pursuant to Decision 1/CP.19 of the UNFCCC, which encouraged countries to initiate or intensify domestic preparations for their NDC and submit them ahead of the COP 21. Initially, the UAE did not propose specific reduction targets vis-à-vis BAU but stated that it aimed to increase clean energy in its total energy mix from 0.2% in 2014 to 24% by 2021. Updated NDC (Second NDC), 2020: The UAE pledged a 23.5% reduction compared to BAU. BAU scenario emissions in 2030 stand at about 310 million tons, assuming a moderate annual economic growth rate based on historical growth trends. Second Update of Second NDC, 2022: The UAE pledged a 31% reduction compared to BAU. Third Update of Second NDC, 2023: The UAE committed to an absolute emissions reduction of 19% by 2030, compared to the 2019 base year level (if expressed in terms comparable to a reduction from BAU, this represents a 40% decrease from the estimated 2030 emissions).

Annex II: GCC Countries Net-Zero and Climate Change Initiatives

GCC Country	Net-Zero and Climate Change Initiatives
Bahrain	Bahrain aims to reach net zero by 2060 as <u>announced</u> during COP26 in Glasgow.
	The <u>Bahrain Vision 2030</u> outlines measures to protect the natural environment, reduce carbon emissions, minimize pollution, and promote sustainable energy. It also specifically addresses the <u>Sustainable Development Goals 2030</u> . The National Energy Efficiency Action Plan (NEEAP) sets out 22 initiatives across sectors to achieve a 6% reduction in energy consumption by 2025.
	 The National Renewable Energy Action Plan (NREAP) identifies feasible options for solar, wind, and biogas renewable energy, with targets of 5% peak capacity by 2025 and 10% by 2035.
	The <u>National Adaptation Investment Plan</u> (NAIP) serves as a blueprint for enhancing resilience in sectors that are most vulnerable to climate change—namely, agriculture, water, biodiversity/ecosystems, and urban development. Through a variety of projects, it aims to tackle challenges such as rising sea levels, water scarcity, extreme temperatures, and food security.
Kuwait	 Kuwait aims to reach carbon neutrality by 2050 in its oil and gas sector, and by 2060 in other sectors, as it <u>announced</u> at COP27.
	 Kuwait's combating climate change is based on <u>sustainable development plans</u> and <u>programs</u> at the national level for 2015–2035. It aims to move to a low- carbon equivalent economy, based on plans and development projects in the country for 2015–2035, by implementing projects and enacting laws in the areas of mitigation and adapting to the adverse effect of climate change.
Oman	 Oman aligns its NDC adaptation goals with the National Adaptation Plan (NAP) process to promote climate-resilient development. NAP integrates adaptation into development planning, emphasizing low-carbon and climate-resilient priorities, projects, and transition pathways.
	• In 2022, Oman adopted its <u>National Strategy for an Orderly Transition to Net Zero</u> , which introduced Oman's vision of its journey to net-zero emissions by 2050. Six main decarbonization technologies would support an orderly transition: energy and resource efficiency, electrification and renewables, battery electric technology, sustainable hydrogen, carbon capture and storage, and negative-emission solutions. Together, these technologies would cover about 90% of abatement to 2050.
	Oman established Hydrogen Oman (HYDROM), a subsidiary of state-owned Energy Development Oman, to lead and manage its hydrogen strategy.
	Oman Vision 2040 guides Oman's strategy towards a low-carbon economy, emphasizing economic diversification and sustainability.

GCC Country	Net-Zero and Climate Change Initiatives
Qatar	Economic diversification and sustainable development are core themes in Qatar's National Vision 2030 and national development strategies.
	 Qatar has already initiated measures to make its oil and gas sector more sustainable with projects such as the Al Shaheen flare reduction and the Jetty boil-off gas recovery.
	Efforts to reduce emissions in the power and water sector include its first 800 MW solar power plant.
	 Qatar Energy announced building facilities capable of capturing and storing more than 7 million tons of carbon dioxide per year in Qatar by 2030.
	Qatar is establishing a major blue ammonia facility with a capacity of 1.2 million tons per annum as part of its strategy to offer low-carbon energy solution.
Saudi Arabia	Saudi Arabia launched its <u>Saudi Green Initiative and the Green Middle East Initiative</u> , a regional effort led by Saudi Arabia to mitigate the impact of climate change on the Middle East region.
	 Saudi Arabia is implementing the Circular Carbon Economy National Program to reduce, reuse, recycle, and remove carbon dioxide emissions.
	 Overall, a number of initiatives are being implemented in Saudi Arabia to combat climate change, including energy efficiency programs, investments in clean hydrogen and renewable energy sources, including NEOM Green Hydrogen Project, a major hydrogen facility project powered entirely by renewable energy, and developing carbon capture technologies.
UAE	 The UAE recently implemented the Third Update of the Second NDC, alongside a number of net-zero and climate change policies and strategies—namely, the UAE Hydrogen Strategy, the National Energy Strategy, and the Abu Dhabi Climate Change Strategy. It also updated the <u>UAE Energy Strategy 2050</u>, setting goals for 2030 and energy strategies to achieve net zero by 2050.
	 <u>UAE Net Zero by 2050</u> strategic initiative is a national drive to achieve net-zero emissions by 2050.
	 ADNOC <u>announced</u> its intention to forward its net-zero emissions target to 2045 instead of its previous commitment for 2050 and Abu Dhabi opened its <u>carbon</u> <u>exchange</u>.
	The UAE launched its first carbon-credit exchange and adopted a sustainable finance framework.