

## FOSSIL FREE ZONES IN THE MENA REGION

Moving beyond the age of fossil fuels.



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#### Introduction

This report focuses on addressing the climate crisis in the Middle East and North Africa (MENA) region. MENA is vulnerable to climate impacts and contributes significantly to global warming through extensive fossil fuel extraction. The region faces rising temperatures and the consequences of fossil fuel-driven growth.

The UAE, balancing its identity as an oil exporter and supporter of renewable initiatives, is central to this discourse. The report introduces Fossil Free Zones (FFZs), areas committed to ending fossil fuel use, presenting a vision for a post-fossil fuel era.

Examining the emergence of FFZs in the MENA region, the report provides strategic insights into the region's sustainability efforts. It highlights the number of FFZs in the region.

By recognizing the MENA region's pivotal role and emphasizing the transformative potential of Fossil Free Zones, the report aims to drive discussions toward a sustainable and resilient future.



# What is a Fossil Free Zone?

Introduced in 2022 by Fergus Green from University College London, Fossil Free Zones (FFZ) is a bottom-up climate action matrix. A Fossil Free Zone is any geographic area free from fossil fuel extraction and burning.

Becoming fossil free - so far - is a bottom up effort that involves phasing out one fossil fuel after the other. Using renewables as an electricity source is not the only requirement to become a Fossil Free Zone. The whole energy profile, including the energy sources used for cooling, heating and cooking, need to be analyzed. Often, storage technologies are essential to achieve the status.

The seven FFZ categories in Table 1 exemplify the adaptable nature of this matrix. This classification serves as a practical guide for identifying and categorizing FFZs, emphasizing that every step contributes to the collective shift towards a more sustainable and fossil free world.



Categories of Fossil Free Zones.

#### 250+ zones worldwide

## ▼ fossilfreezones.org

LINGO has identified and documented over 250 Fossil Free Zones worldwide, ranging from single buildings to an entire continent. These zones are mapped globally at fossilfreezones.org, illustrating the varied scales at which operating without fossil fuels is already happening today.



## Fossil Free Zones in the MENA region:

The MENA region, comprising 18 countries, experienced profound climate impacts in the early 2020s, coupled with economic and energy crises in nations like Egypt, Lebanon, Palestine, and Jordan. Simultaneously, the UAE witnessed notable technological advancements. In response, a significant shift towards renewables emerged as a solution, indicating a potential trajectory towards phasing out fossil fuels.

Upon conducting research in 18 countries in the region, we identified 500 potential Fossil Free Zones ("Candidates"). were identified in 18 countries.

Green initiatives\* are playing a pivotal role in facilitating this energy transition, with mosques in Oman, Jordan, Morocco, Saudi Arabia, and Algeria, as well as schools in the UAE, Oman, and Jordan, becoming first movers on sustainable energy practices. Within this landscape, Fossil Free Zones provide a strategic tool for discussing the elimination of fossil fuels. In the MENA region and beyond, they serve as tangible manifestations of the transition away from fossil energy sources, highlighting not only the energy transition model but also success stories that exemplify the possibility of thriving without fossil fuels.



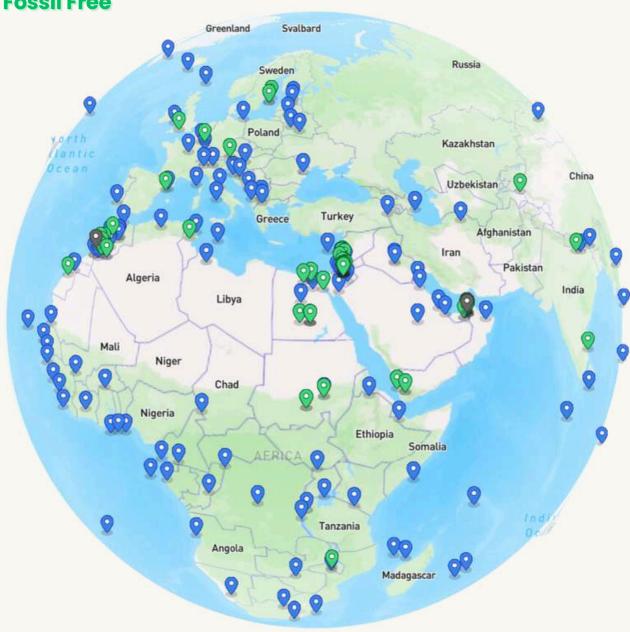
The following table outlines the number of identified zones and gives some examples.

Country	Candidates	Confirmed	Examples
UAE	81	9	SEE Institute, Fairgreen International School, Innovation Center Dubai, Moro Hub Data Center 1 and 2, Green Hydrogen Project and Eco-Villa Prototype of Masdar City - Abu Dhabi.
KSA	10	1	Coal-extraction free country
Bahrain	16	1	Coal-extraction free country
Kuwait	1	1	Coal-extraction free country
Oman	16	1	Coal-extraction free country
Qatar	1	1	Coal-extraction free country
Jordan	134	2	Abu Ghuweileh Mosque, Coal-extraction free country
Syria	56	2	Northern Madaya Mosque, Coal-extraction free country
Lebanon	113	10	<u>Lifehaus</u> , Deir Qanoon elNaher Municipality, Imam Baker Mosque, Martyr Hassan Kassir School, Fossil-extraction free country
Palestine	20	]*	Fossil-extraction free country
Iraq	4	1	Sayed Chaker Mosque, Coal-extraction free country
Yemen	9	1	Coal-extraction free country
Morocco	48	13	Tadmamet Mosque, Ouirgane Ecolodge, Oasis Bab el Oued, Tiferki village
Algeria	17	1	Coal-extraction free country
Tunisia	4	2	Makhtar School, Coal-extraction free country
Egypt	33	5	Wahat Farm, Alrahman Mosque, Sheikh Zayed Mosque Alexandria, Alkhareja School, Al Wadi Al Jadeed
Libya	3	1	Coal-extraction free country
Sudan	6	4	Al Farouq Mosque, Masaoud Mosque, Hadaf village mosque, Coal- extraction free country
MENA REGION	572	57	

Table 2: Fossil Free Zones identified in MENA Countries

### **Prossil Extraction Free**

**Prossil Free** 



World map of Fossil Free Zones. Source: fossilfreezones.org



## **Examples**







SEE Institute

Location The Sustainable City, Dubai

Fossil Free since 2021

Project description The building produces more than 300% of

its operational energy requirements

System components Renewable sources including solar

panels and a biogas plant handling

organic waste

## **Examples**







#### Moro Hub Data Center

Location The Mohammed bin Rashid Al

Maktoum (MBR) Solar Park, Dubai

Fossil Free since 2023

Project description The largest solar-powered data

centre

System components

The MBR Solar Park, coupled with the Huawei SmartLi UPS solution, produces 100% of the data center's

energy needs

## **Conclusion**

The move to becoming fossil free is gaining momentum in the MENA region, providing a solution to the pressing climate crisis. The call for action is urgent, with the region facing climate vulnerabilities and the need for a rapid transition to renewable energy.

Success lies in breaking the addiction to fossil fuels, and FFZs serve as a practical guide for this transition. If COP28 advances this agenda, it will mark a pivotal success. The report underscores the MENA region's role and the transformative potential of FFZs, aiming to inspire discussions and actions for a resilient and sustainable future.









#### Methodology

Our research focused on mosques, schools and businesses across the 18 MENA countries. Below, we summarize the key steps of our methodology for identification of Fossil Free Zones.

#### Step 1

#### **FFZ Candidates Determination**

Online outreach and search Google map scan for solar panels

Google search using keywords Renewable companies projects

**Communication with allies** Calls and interviews **and partner organizations** Surveys and forms

#### Step 2

#### Electricity, heating, cooling and cooking profiling

Online information

Call/interview with the FFZ candidate
Call/interview with the renewable company

Surveys and forms

## Step 3

#### FFZ Category confirmation

Call/interview with the FFZ or the renewable energy contractor

## Step 4 FFZ insertion on the Map

Morocco Green Mosques (2016) Jordan Jordan Initiative (2016)

Yemen supported by KSA Solar-powered housing initiatives (2023)

KSA Green KSA Initiative (2021)

Ummah for earth Green Mosques (2022), Green Mosques Initiative (2021)

UAE Masdar Smart Mosque (2018), Dubai Solar School (2017), Ajyal School

(2022), Shams Dubai (2014)

Algeria Green Mosques (2022)

Oman Initiative for Green Mosques (2021), Solar into Schools (2015)

Renewable energy initiatives in the MENA Region





## Leave it in the Ground Initiative (LINGO)

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