

Nationally Determined Contributions and Energy Policies in MENAT Countries

**Annex of Very Long-Term Mediterranean
Energy Perspectives Report**

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Disclaimer

This document has been prepared for **MED-TSO – Mediterranean Transmission System Operators by NE Nomisma Energia srl (Italy) and RCREEE – Regional Center for Renewable Energy and Energy Efficiency (Egypt)**, within the framework of Activity 1.3: Execution of “Very Long-Term Mediterranean Energy Perspectives” under the TEASIMED 2 project, co-funded by the European Commission through the GRANT CONTRACT – EXTERNAL ACTIONS OF THE EUROPEAN UNION NDICI-GEO-NEAR/2022/437-130.

The contents of this document are the sole responsibility of NE Nomisma Energia srl, RCREEE and MED-TSO. This report addresses the NDCs of MENAT countries, which reflect their countries’ views.

Data sources were extracted in June 2025.

Introduction

Nationally Determined Contributions (NDCs) are at the heart of the Paris Agreement, the landmark international treaty on climate change adopted in 2015. Each country that signed the Paris Agreement is required to submit its own NDC, outlining its national climate actions, targets, and policies to reduce greenhouse gas emissions and adapt to climate impacts. While countries set their own targets, they are legally obligated to report on progress and update their NDCs every five years.

This document provides a snapshot of the NDCs as published by June 2025 for the **11 non-EU Mediterranean countries**, focusing on the energy sector.

Additionally, this report includes summaries of various national plans, roadmaps (such as low-carbon strategies), and specific programs (e.g., concerning hydrogen) that complement the NDCs and translate them into concrete actions and objectives.

Initially, Chapter 2 of this report presents all the sources used (including web links). The following chapter features a summary table of greenhouse gas emission reduction targets. The report then continues with a concise overview for each country.

Table of contents

Abbreviations	4
1. Sources	6
2. Nationally Determined Contributions (NDCs) GHG Emission Reduction Targets	8
3. Country Targets	10
3.1 Algeria	10
3.2 Egypt	12
3.3 Israel	15
3.4 Jordan	17
3.5 Lebanon	20
3.6 Libya	22
3.7 Morocco	23
3.8 Palestine	27
3.9 Syria	29
3.10 Tunisia	31
3.11 Türkiye	36

Abbreviations

AAWDCP	Arab Alliance for Water and Development Cooperation Platform
BAU	Business As Usual
BRT	Bus Rapid Transit
CCS	Carbon Capture and Storage
CCDR	Country Climate and Development Report
CEM	Clean Energy Ministerial
CFL	Compact Fluorescent Lamp
NAMA	Nationally Appropriate Mitigation Action
CNG	Compressed Natural Gas
CO₂	Carbon Dioxide
COP	Conference of the Parties
CSP	Concentrated Solar Power
EE	Energy Efficiency
EMRC	Energy and Minerals Regulatory Commission
EU	European Union
EV	Electric Vehicle
GDP	Gross Domestic Product
Gg	Gigagram
GHG	Greenhouse Gas
GWh	Gigawatt-hour
GWh/a	Gigawatt-hours per annum
GW	Gigawatt
GWp	Gigawatt Peak
GWP	Global Warming Potential
HDV	Heavy-Duty Vehicle
H₂	Hydrogen
HFC	Hydrofluorocarbon
INDC	Intended Nationally Determined Contribution
IV	Industrial Volume
kgH	Kilogram of Hydrogen
km	Kilometre
kt	Kiloton
LC	Low Carbon
LED	Light Emitting Diode
LPG	Liquefied Petroleum Gas
MEPS	Minimum Energy Performance Standards
MENAT	Middle East, North Africa and Türkiye

MJ	Megajoule
MTPA	Million Tonnes Per Annum
Mt	Million Tonnes
MCPD	Mediterranean Climate Plan Development
MSW	Municipal Solid Waste
Mt CO₂eq	Million Tonnes of CO ₂ Equivalent
MW	Megawatt
N₂O	Nitrous Oxide
NDC	Nationally Determined Contribution
NEEAP	National Energy Efficiency Action Plan
NG	Natural Gas
PNA	Plan National d'Action (National Action Plan)
PNA- MCPD	National Action Plan on Sustainable Consumption and Production Patterns
PEM	Proton Exchange Membrane
PV	Photovoltaic
RDF	Refuse-Derived Fuel
RE	Renewable Energy
RES	Renewable Energy Sources
SDS	Sustainable Development Strategies
SME	Small and Medium-sized Enterprises
SWH	Solar Water Heater
t	Tonne
tpa	Tonnes per Annum
TransMED	Mediterranean Transmission Project
TWh	Terawatt-hour
WWTP	Waste water Treatment Plant

Sources

Countries	Policies/Strategies
Algeria	<ul style="list-style-type: none">• Nationally Determined Contribution, 2015• National Hydrogen Strategy• National Action Plan on Sustainable Consumption and Production Patterns, 2016-2030
Egypt	<ul style="list-style-type: none">• Egypt's Second Updated Nationally Determined Contributions, 2023• Egypt's National Low-Carbon Hydrogen Strategy - Short Version• Sustainable Development Strategy: Egypt's Vision 2030• National Energy Efficiency Action Plan, 2012 - 2015• Low-Carbon Roadmap for the Egyptian Cement Industry
Israel	<ul style="list-style-type: none">• Updated Nationally Determined Contributions, 2021
Jordan	<ul style="list-style-type: none">• Updated Submission of Jordan's 1st Nationally Determined Contribution, 2021• Draft National Green Hydrogen Strategy for Jordan• Energy Sector Green Growth National Action Plan, 2021-2025

Lebanon	<ul style="list-style-type: none"> • Lebanon’s Nationally Determined Contribution – Updated 2020 Version, 2021 • Industrial Sector Development Strategic Plan and Implementation Mechanisms, 2020-2025 • National Renewable Energy Action Plan for the Republic of Lebanon, 2016-2020
Libya	<ul style="list-style-type: none"> • National Renewable Energy and Energy Efficiency Strategy • National Renewable Energy Action Plan
Morocco	<ul style="list-style-type: none"> • Updated Nationally Determined Contribution, 2025 • Morocco Roadmap Green Hydrogen, 2021 • Morocco 2050 Long-Term Low Carbon Strategy • National Sustainable Development Strategy 2030 • National Framework Plan for Sustainable Consumption and Production, 2015
Palestine	<ul style="list-style-type: none"> • The State of Palestine’s First Nationally Determined Contributions, Updated Submission, 2021
Syria	<ul style="list-style-type: none"> • Nationally Determined Contributions under the Paris Agreement on Climate, 2018 • National Development Program for Post-War Syria, “Syria Strategic Plan 2030”
Tunisia	<ul style="list-style-type: none"> • Updated Nationally Determined Contributions, 2021 • H₂ and Derivatives National Strategy • Carbon Neutral and Climate Resilient Development Strategy by 2050 • White Paper on the transport and logistics sector • Tunisia’s Energy Strategy for 2035 • Country Climate and Development Report
Türkiye	<ul style="list-style-type: none"> • Intended Nationally Determined Contribution, 2021 • Updated Nationally Determined Contributions, 2023 • Long Term Climate Strategy 2053 • 2nd National Energy Efficiency Action Plan 2024-2030 • Türkiye National Energy Plan, 2022

2

Nationally Determined Contributions (NDCs) GHG Emissions Reduction Targets

Country	Submission Year	Version Number	Base Year	Baseline Emissions ^a (Mt CO ₂ eq)	Business as Usual (BAU) 2030 ^b	Unconditionally Targeted Emission Reductions (Mt CO ₂ eq)		Conditionally Targeted Emission Reductions (Mt CO ₂ eq)		Other Emissions Obligations	Source
						Amount	[%]	Amount	[%]		
Algeria	2016	NDC 1.0	2015	-	-	-	7% ^o	-	22% ^o	-	NDC
Egypt	2023	NDC 2.0	2015	138.1 ^c	341.7	-	-	91.1	26.7% ^d		NDC
Israel	2021	NDC 2.0	2015	-	-	-	27% ^p	-	-	-	NDC
Jordan	2021	NDC 3.0	2012	28	44	2.2	5%	9.4	31%	Kigali Amendment ^e + emission-neutral for Amman city ^f	NDC
Lebanon	2021	NDC 1.0	2011	-	39	7.8	20%	12.1	31%	-	NDC
Libya	NDC has not been submitted yet										

Morocco	2025	NDC 3.0	2010	72.9	142.3	36.02	21.6%	52.21	31.4% ^g	Kigali Amendment + Net-zero target by 2050h	NDC
Palestine	2021	NDC 1.0	2011	3.2	15.93 ⁱ	-	-	2.8	17.5%	-	NDC
					22.5 ^j	-	-	4.6	26.6%		
Syria	2018	NDC 1.0	2005	79.1	Syria doesn't have a national GHG target in the NDC ^k					-	NDC
Tunisia	2021	NDC 3.0	2010	35	63.2 ^l	19.6	31% ^m	19.6	31% ^m	Kigali Amendment + Carbon Neutrality by 2050	NDC
Türkiye	2021	NDC 2.0	2012	477 ⁿ	1,175	480	41%	-	-	Net-zero target by 2053	NDC

a. The baseline emissions at the base year.

b. The Business as Usual (BAU) scenario in NDCs refers to projected greenhouse gas (GHG) emissions in the absence of climate policies or mitigation actions, serving as a baseline against which emission reduction targets are measured.

c. Egypt's total GHG emission is 325.6 Mt CO₂eq. The 2nd NDC focuses on 43% of Egypt's total GHG emissions in 2015, encompassing three key sectors: electricity, oil and gas (including associated gases), and transport.

d. Egypt proposes 37% GHG reduction in the electricity sector (equivalent to 80.5 Mt CO₂eq), 65% GHG reduction in the oil and gas sector (equivalent to 1.7 Mt CO₂eq), and 7% GHG reduction in the transport sector (equivalent to 9 Mt CO₂eq) by 2030.

e. The Kigali Amendment to the Montreal Protocol, adopted in 2016, aims to phase down hydrofluorocarbons (HFCs), greenhouse gases used in refrigeration and air conditioning with a global warming potential (GWP) approximately 12,000 times that of CO₂, to mitigate climate change and limit global warming.

f. Carbon neutral means balancing emitted carbon dioxide with an equivalent amount removed or offset, resulting in net-zero CO₂ emissions.

g. Morocco proposed overall mitigation targets of 53% (unconditional and conditional measures) by 2035 compared to the baseline scenario.

h. https://unfccc.int/sites/default/files/resource/MAR_LTS_Dec2021.pdf

i. The BAU is estimated for 2040. This value represents the BAU Status Quo, where the Israeli occupation continues.

j. The BAU is estimated for 2040. This value represents the BAU Independence Scenarios, where the Israeli occupation ends.

k. <https://ndcpartnership.org/country/syr>

l. Expected emissions in 2035.

m. Tunisia's contribution is represented as a decrease in its carbon intensity in 2035 compared to that of 2010.

n. The Business-as-Usual scenario is presented in the [INDC](#).

o. In Algeria, the GHG objective is to reduce emissions by 7% unconditionally and 22% conditionally by 2030 compared to the Reference Scenario (BAU).

p. Israel has set unconditional absolute GHG emissions reduction targets of 27% by 2030 and 85% by 2050, both relative to 2015 levels.

3

Country targets

3.1 Algeria

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	Aim to reduce emissions by 7% unconditionally and 22% conditionally by 2030 compared to the Reference Scenario (BAU) (NDC).
Renewable Energy (RE)	Reach 27% of national electricity production (in GWh) from RE by 2030 (NDC).
Power Sector	<ul style="list-style-type: none">• Increase in the shares of LPG and natural gas in fuel consumption between 2021 and 2030 (NDC).• Reduce the volume of gas flaring to less than 1% by 2030 (NDC).
Energy Efficiency (EE)	<ul style="list-style-type: none">• Aims to reduce overall energy consumption by 9% by 2030 (NDC).• Scale up EE programmes in industry, services and administration (PNA-MCPD).• Promote the implementation of EE management systems and ISO 50001 certification in organisations (PNA-MCPD).• Adapt and implement technical standards for EE in buildings and public infrastructure (PNA-MCPD).
Electrification	-

Low-Carbon Hydrogen	<ul style="list-style-type: none"> • The roadmap covers the development of renewable (green) and clean (blue) hydrogen. • Green Hydrogen: production and export between 30 and 40 TWh in the form of gaseous hydrogen, liquid hydrogen and/or its derivatives. • Green Hydrogen: supply the European market with around 10% of its needs by 2040. • Clean (blue) hydrogen: 10 TWh to be produced to meet national market needs. • Initial pilot projects of 2 MW to 50 MW electrolysis capacity will use PEM-type electrolyzers exclusively.
Industrial Sector	<ul style="list-style-type: none"> • Encourage the use of RE and cogeneration in industrial production (PNA-MCPD). • Promote clean hydrogen, particularly in the manufacture of glass, plant protection products, chemicals and fertilisers, refining, steel and cement plants (H₂).
Services Sector	Promote the use of RE and cogeneration in services (hotels), government and local authorities (PNA-MCPD).
Household Sector	<ul style="list-style-type: none"> • Generalise the use of high-performance lighting (NDC, PNA-MCPD). • Promote thermal insulation of housing between 2021 and 2030 (NDC). • Promote eco-efficiency labelling to national and foreign products in the Algerian market (PNA-MCPD). • Establish incentives to promote small-capacity RE applications (<1MW), particularly in remote sites (PNA-MCPD).
Transport Sector	<ul style="list-style-type: none"> • Convert 1 million vehicles and 20,000 buses to LPG (NDC). • Gradually generalise the use of alternative fuels in public transport (electric, LPG, CNG) and encourage their use in private vehicles (PNA-MCPD). • Develop energy-efficient modes of public transport (e.g. tramways, electric trains) and plan for the primacy of public transport over private vehicles by 2030 (PNA-MCPD). • Promote the use of renewable (green) and clean (blue) hydrogen as a fuel for decarbonising transport (H₂).
Agriculture Sector	Promote the use of RE and cogeneration in agricultural, aquaculture and fisheries production (PNA-MCPD).
Data Centres and Desalination	-

3.2 Egypt

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	Egypt's total GHG emissions were 325.6 Mt CO ₂ eq in 2015. The 2 nd NDC focuses on 43% of Egypt's total GHG emissions in 2015, encompassing three key sectors: electricity, oil and gas (including associated gases), and transport, targeting 37%, 65%, and 7% emission reduction in each sector, respectively.
Renewable Energy (RE)	Install additional renewable energy (RE) capacity to increase the electricity generation contribution to 30%, and 42% from clean energy (including Nuclear) by 2030 (NDC) .
Power Sector	<ul style="list-style-type: none"> • Fuel mix for electricity production: Oil and Gas: 58%, Solar: 6%, Hydroelectricity: 5%, Wind: 19%, Nuclear: 12% by 2030 (Egypt Vision). • Replace existing inefficient thermal power plants with RE and promote the use of smart meters (NDC). • Implement low-investment EE measures in petroleum companies to reduce the sector's energy consumption by 5% (NDC). • Target 8% efficiency improvement in the electricity transmission and distribution network by 2030 (Egypt Vision).
Energy Efficiency (EE)	<ul style="list-style-type: none"> • Target a 14% reduction in energy intensity by 2030 (Egypt Vision). • Reduce total final consumption by 5% (NEEAP).
Electrification	-
Low-Carbon Hydrogen	<ul style="list-style-type: none"> • Set up and localise the electrolyser manufacturing industry. <p>For central ambition</p> <ul style="list-style-type: none"> - By 2030, target 50 TWh (1.5 MTPA) of green hydrogen, 13 GW of electrolyser capacity, and 19 GW of installed RE. - By 2040, target 193 TWh (5.8 MTPA) of green hydrogen, 48 GW of electrolyser capacity, and 72 GW of installed RE. - By 2040, achieve a 5% share in the global hydrogen export market, equivalent to 126.7 TWh (3.8 MTPA).

For green ambition

- By 2030, targeting 106.7 TWh (3.2 MTPA) of green hydrogen, 27 GW of electrolyser capacity, and 41 GW of installed RE.
- By 2040, targeting 306.3 (9.2 MTPA) of green hydrogen, 76 GW of electrolyser capacity, and 114 GW of installed RE.
- By 2040, 8% share in the global hydrogen export market, equivalent to 186.6 TWh (5.6 MTPA).

-
- Nine partnership agreements were signed during COP27, envisaging three phases:
 - Pilot phase: 24.63 GW of renewables to supply 9.86 GW of electrolyser capacity.
 - Phase 1: 57.3 GW of renewables to supply 24.55 GW of electrolyser capacity.
 - Phase 2: 19.35 GW of renewables and 9.4 GW of electrolysers.

Industrial Sector

- Achieve a 10% decrease in thermal energy consumption by the iron & steel, fertiliser and ceramic industries (NDC).
- Utilise 20% of the collected waste for waste-to-energy (NDC).
- Decrease the average specific energy consumption of cement from 3710 to 3540 MJ/tonne cement (NDC).
- Lower the clinker content in cement up to 80% (low-carbon roadmap for cement).
- Promote the eco-industrial parks concept to scale up resource efficiency (NDC).
- Regulatory Efficient Motors (NDC).
- By 2030: Low-carbon hydrogen uses in industry (ammonia and steel production) ([H₂](#)).
- By 2040: Low-carbon hydrogen uses in industry (ammonia, methanol and steel production, refineries) ([H₂](#)).

Services Sector

- Install energy-efficient and/or solar-operated street lighting and advertisements on internal roads and highways between cities (NDC).
- Promote the use of RE such as solar PV power plants, solar water heating for domestic uses and swimming pools in tourist hotels and resorts, and solar water desalination (NDC).
- Replace LED lighting, improve building envelopes, employ HVAC systems, ensure efficient water pumping, and encourage hotel guests to adopt EE practices (NDC).
- Solar heating in the tourism sector can save 67 GWh/a (NDC).

Household Sector	<ul style="list-style-type: none"> • Develop 16,960 residential units according to green building standards by 2030 (NDC). • Installation of rooftop PV panels for electricity generation, 5,300 solar water heaters, and expansion of the use of LED lighting in the residential sector by 2030 (NDC). • Expand on EE labels and specifications for the appliances programme (NDC). • Promote green buildings by activating the EE codes for new buildings (NDC). • Adopt procedures for the renovation of existing buildings to meet energy performance standards (NDC). • The MEPS programme can achieve savings of up to 10% in the residential sector (NEEAP).
Transport Sector	<ul style="list-style-type: none"> • Drive a low-carbon modal shift from private passenger and freight vehicles to mass transit such as metro, monorail, electric train and public buses (NDC). • Green the civil aviation sector by introducing 2% biofuels to aeroplanes, converting passenger buses and other vehicles to operate on cleaner fuels, and installing PV in airports (NDC). • By 2040 , promote the use of hydrogen in cars, buses, HDVs, rail, shipping and aviation (H₂).
Agriculture Sector	-
Data Centres and Desalination	Produce 4 million m ³ of desalinated water daily (NDC).

3.3 Israel

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	The new NDC (2021) includes an unconditional absolute greenhouse gas (GHG) emissions reduction goal of 27% by 2030 and 85% by 2050, both relative to 2015 levels (NDC).
Renewable Energy (RE)	Targets for a renewable power generation share of 20% in 2025 and 30% in 2030 (NDC).
Power Sector	<ul style="list-style-type: none"> • Reduce greenhouse gas emissions from electricity generation by at 30% by 2030 compared to 2015 levels (37.6 Mt CO₂eq), taking into account the renewable energy targets set in Government Decision No. 465. • Reduce greenhouse gas emissions from electricity generation by at least 85% by 2050 compared to 2015 levels.
Energy Efficiency (EE)	<ul style="list-style-type: none"> • In the Reference scenario, energy intensity improvement compared with 2015 is projected at approximately 9% by 2025 and 11% by 2030. • In the Reduction scenario, energy intensity improvement compared with 2015 is projected at approximately 11.5% by 2025 and 18% by 2030 (NDC). • Set a new energy intensity target of 122 MWh per NIS 1 million of GDP by 2030.
Electrification	Increase the share of electricity in final energy consumption, especially through heat pumps and EVs (NDC).
Low-Carbon Hydrogen	Technological innovation, including low-carbon fuels and storage solutions, will be assessed for feasibility in the long term (NDC).
Industrial Sector	<ul style="list-style-type: none"> • Encourage the implementation of energy management systems in industry (NDC). • Reduce greenhouse gas emissions from industry by at least 30% by 2030 relative to 2015 levels (12 Mt CO₂eq). • Reduce industrial greenhouse gas emissions by at least 56% by 2050 relative to 2015 levels.
Services Sector	Implement regulatory measures to accelerate energy efficiency, including energy surveys and consumption reports (NDC).

Household Sector	Update maximum energy consumption regulation for household appliances: ovens, washing machines, clothes dryers and dishwashers (NDC).
Transport Sector	<ul style="list-style-type: none"> • Reduce private car mileage by 20% by 2030 relative to the BAU scenario projection for that year (NDC). • Limit greenhouse gas emissions from transport by 2030, to only 3.3% above 2015 levels (17.6 Mt CO₂eq). • Reduce private car mileage by 20% by 2030 relative to the BAU scenario projection for that year (NDC). • Limit greenhouse gas emissions from transport by 2030, to only 3.3% above 2015 levels (17.6 Mt CO₂eq). • Limit greenhouse gas emissions from new vehicles weighing up to 3.5 tonnes, registered from 2030 onwards, to 5% of the average emissions of equivalent vehicles registered in 2020. This target is re-examined in 2025, and will be updated as necessary, taking into account technological developments, the extent of the penetration of electric vehicles in Israel and globally, electricity infrastructure and the deployment of charging stations in Israel. • Reduction of greenhouse gas emissions from transport by 2050 by at least 96% compared to 2015 levels.
Agriculture Sector	-
Data Centres and Desalination	<ul style="list-style-type: none"> • Electricity demand is expected to increase due to the expansion of high-energy-intensive sectors, particularly data centres, which will be required to meet energy efficiency standards and encouraged to use renewable energy (NDC). • Promote the integration of desalination plants, a major electricity consumer in Israel's water sector with renewable energy sources and energy efficiency technologies (NDC).

3.4 Jordan

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	<ul style="list-style-type: none"> • Jordan's total emissions were 28 MtCO₂eq in 2012 and are expected to increase to 44 MtCO₂eq by 2030 under the Business-as-Usual scenario (NDC 2.0). • Jordan targets a 5% emission unconditional and 26% conditional reduction under NDC 2.0, updated to 31% in NDC 3.0 relative to 2010 levels (NDC 2.0, NDC 3.0). • This translates into the avoidance of approximately 9.3 MtCO₂eq (9,269 Gg of CO₂eq) (NDC 3.0).
Renewable Energy (RE)	Increase the share of electricity generated from renewables to 35% by 2030 (NDC).
Power Sector	Power generation and storage have the potential to drive strong demand for green hydrogen, beginning as early as 2028 and reaching nearly 85,000 TPA Metric tonne of hydrogen demand per year by 2030, over 363,000 TPA by 2040, and nearly 390,000 TPA by 2050 (H₂).
Energy Efficiency (EE)	Improve efficient energy consumption across all sectors by 9% (NDC).
Electrification	-
Low-Carbon Hydrogen	<p>Export and Domestic Use:</p> <p>Present a potential opportunity for 19.6 TWh (0.591 MTPA) of green hydrogen production by 2030, 50 TWh (1.5 MTPA) by 2040, and 113 TWh (3.4 MTPA) by 2050, in the Base scenario.</p> <p>Export:</p> <p>Jordan is expected to export 16.7 TWh (0.5 Mt) of green hydrogen supply (in the form of ammonia) to Europe by 2030, with the ability to reach over 33 TWh (1 Mt) by 2040 and 80 TWh (2.4 Mt) by 2050 in the Base scenario.</p> <p>The country's focus is more on exports.</p> <p>Domestic applications of hydrogen include ammonia for fertiliser, HDV, municipal buses, power generation, refining, cement, steel, aviation, shipping, residential & commercial heating, lift systems and port logistics (H₂).</p>

Industrial Sector	<p>Promote the use of NG in industrial operations as an alternative, lower-cost fuel in order to reduce production costs (NDC). Improve the competitiveness of national products by reducing the tax on the use of NG for the industrial sector from 16% to 7% with tax relief for the first three years (NDC).</p> <p>Energy Efficiency Projects in Industry:</p> <ul style="list-style-type: none"> • Return unreturned condensate to feedwater tanks in the food industry. • Insulate the uninsulated pipes, fittings and tanks in food industries. • Use regenerative burners instead of conventional burners in the steel reheating Industry (NDC). • Incentive the energy audit improvement plan and its implementation for SMEs and local industries by creating a funding mechanism with the cooperation of local banks (NDC). • Use steel slag and/or fly ash to substitute the raw materials needed to produce clinker” (NDC). • Increase the percentage of pozzolana in CEM II by producing a new cement product, CEM IV, with 45% pozzolana and use biomass (MSW or sewage sludge) as alternative fuels (NDC). • Install a catalyst system for mitigation of N₂O emissions in Nitric Acid production at the KEMAPCO company in Aqaba (NDC). • Implement pilot interventions to scale up the sustainable use of cooling technologies with climate-friendly gases (NDC). • Green ammonia production for the fertiliser industry is not expected to materialise until 2040, after which demand is expected to scale rapidly to at least 6.8 TWh (204,000 TPA) by 2050 (H₂). • Hydrogen demand for steel production is not expected to materialise until nearly 2040, reaching approximately 0.03 TWh (1,000 TPA) by 2050 (H₂). • Jordan’s cement sector is expected to see hydrogen demand emerge closer to 2050, reaching nearly 0.5 TWh (14,000 TPA) (H₂).
Services Sector	-
Household Sector	<p>Energy Measures in the Residential Sector:</p> <ul style="list-style-type: none"> • Distribute natural gas in the main cities (Amman, Zarqa and Aqaba). • Implement the Solar Water Heaters (SWH) Project for 90,000 houses (NDC). • Potential demand for residential and commercial heating at around 550 TPA of hydrogen by 2030, nearly 8,000 TPA by 2040, and over 19,000 TPA by 2050 (H₂).

Transport Sector

- Foster the use of the intelligent transport systems, the Bus Rapid Transit (BRT), and the railway project (NDC).
- The Energy and Mineral Regulatory Commission (EMRC) currently provides licences to public and private electric vehicle charging stations and has announced that all new petrol stations should have electric charging facilities (NDC).
- Construct four additional Bus Rapid Transit Project (BRT) lines (there are two already under construction) (NDC).
- Electric bus fleet: The total fleet is expected to reach 73 buses, depending on uptake (NDC).
- Promote hybrid and electric cars at the national level, with 50% of the public fleet to be EVs, and target an annual 2% increase in private car uptake (NDC).
- Heavy-duty road transport could see green hydrogen demand as early as 2029 and is expected to account for nearly 3,000 TPA of demand by 2030, nearly 40,000 TPA by 2040, and over 164,000 TPA by 2050 (H₂).
- Green hydrogen uptake for municipal transport could begin as early as 2028, exceeding 2,000 TPA by 2030, approximately 9,500 TPA by 2040, and over 25,500 TPA by 2050 (H₂).
- Demand for green hydrogen for sustainable shipping fuels could reach 55,000 TPA in 2040 and scale to 240,568 TPA by 2050 (H₂).
- Domestic green hydrogen usage for aviation is expected to become economical no earlier than 2035 and could potentially reach 7,000 TPA by 2040, scaling to 48,000 TPA by 2050 (H₂).

Agriculture Sector

Set a target aligned with the Water Sector Strategy to reduce the consumption of energy by 15% through improved EE measures by 2030 (NDC).

Data Centres and Desalination

Install 185 MW of PV for the Aqaba Amman Water Desalination and Conveyance Project (AAWDCCP) (NDC).

3.5 Lebanon

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	The expected emissions in 2030 are 39 MtCO ₂ eq; Lebanon targets a 20% unconditional reduction (equivalent to 7.8 MtCO ₂ eq) and a 31% conditional reduction (equivalent to 12.1 MtCO ₂ eq) below its BAU scenario.
Renewable Energy (RE)	<ul style="list-style-type: none"> • Unconditionally generate 18% of its electricity demand and 11% of its heat demand (in the building sector) from RE sources by 2030 (NDC). • Conditionally generate 30% of its power demand and 16.5% of its heat demand (in the building sector) from RE sources by 2030 (NDC). • Achieve a 12.5% share of RE of total energy production (equivalent to 1,409 ktoe) by 2030 (NREAP). <p>-----</p> <p>Renewable Target Shares by 2030 (NREAP):</p> <ul style="list-style-type: none"> • Wind: 450 MW and 1,423 GWh (307 ktoe) • PV, CPV: 300 MW and 480 GWh (104 ktoe) • Distributed PV: 150 MW and 240 GWh (51.8 ktoe) • SWH: 1,715 MW and 1,116 GWh (241 ktoe) • CSP: 100 MW and 341 GWh (74 ktoe) • Hydro: 473 MW and 1,677 GWh (362 ktoe) • Geothermal: 15 MW and 69 GWh (15 ktoe) • Bioenergy: 1,177 GWh (254 ktoe)
Power Sector	-
Energy Efficiency (EE)	<ul style="list-style-type: none"> • Unconditionally reduce power demand through EE measures by 3% under the BAU scenario by 2030 (NDC). • Conditionally reduce power demand through EE measures by 10% under the BAU scenario by 2030 (NDC).
Electrification	-
Low-Carbon Hydrogen	Lebanon's hydrogen strategy is under development.

Industrial Sector	<ul style="list-style-type: none"> • PV in the industrial sector: Pessimistic 10 MW, 16.5 GWh – Realistic 30 MW, 49.5 GWh – Optimistic 40 MW, 66 GWh by 2030 (NREAP). • Reduce energy costs in factories by 20% by encouraging the use of alternative energy (Industry Plan). • Reduce electricity tariffs for industrial establishments by 20% (Industry Plan). • Increase industrial exports by 5% annually over their 2019 average (Industry Plan). • Increase the industrial contribution to the GDP by at least 2% annually over the next five years, reaching 18% within five years (Industry Plan). • Exempt 100% of industrial exports from income tax (currently taxed at 5%) (Industry Plan).
Services Sector	<ul style="list-style-type: none"> • Install PV in the commercial sector: Pessimistic 25 MW, 41.25 GWh– Realistic 40 MW, 66 GWh– Optimistic 60 MW, 99 GWh by 2030 (NREAP). • Install PV in other sectors (public, municipalities): Pessimistic 2 MW, 3.3 GWh– Realistic 5 MW, 8.25 GWh– Optimistic 20 MW, 33 GWh by 2030 (NREAP). • Install PV in public street lighting: Pessimistic 3 MW, 4.95 GWh– Realistic 5 MW, 8.25 GWh – Optimistic 10 MW, 16.5 GWh by 2030 (NREAP).
Household Sector	<ul style="list-style-type: none"> • Unconditionally generate 11% of its heat demand in the building sector from RE sources in 2030 (NDC). • Conditionally generate 16.5% of its heat demand in the building sector from RE sources in 2030 (NDC). • Install PV in the residential sector: Pessimistic 5 MW, 8.25 GWh– Realistic 10 MW, 16.5 GWh – Optimistic 20 MW, 33 GWh by 2030 (NREAP).
Transport Sector	<ul style="list-style-type: none"> • Ensure a variety of public transportation systems, such as buses of different sizes, by region (SDS). • Promote railways on the coast and in the Bekaa valley at least (SDS).
Agriculture Sector	<p>Install PV in the agriculture sector: Pessimistic 5 MW, 8.25 GWh– Realistic 10 MW, 16.5 GWh– Optimistic 20 MW, 33 GWh by 2030 (NREAP).</p>
Data Centres and Desalination	<p>-</p>

3.6 Libya

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	-
Renewable Energy (RE)	<ul style="list-style-type: none"> • Target 15% RE in the energy mix and 20% renewable energy by 2035 (National RE/EE Strategy). • Target 10% RE in the energy mix by 2025 (NREAP).
Power Sector	-
Energy Efficiency (EE)	-
Electrification	-
Low-Carbon Hydrogen	A hydrogen strategy has yet to be developed or adopted.
Industrial Sector	-
Services Sector	-
Household Sector	-
Transport Sector	-
Agriculture Sector	-
Data Centres and Desalination	-

3.7 Morocco

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	<ul style="list-style-type: none"> • Morocco's total GHG emissions were 72.9 MtCO₂eq in 2010 and are expected to increase to 142.3 MtCO₂eq by 2030, 166.5 MtCO₂eq by 2035 under the BAU scenario (NDC). • The country targets a 21.6% unconditional reduction (equivalent to 36.02 MtCO₂eq) and a 31.4% conditional reduction (equivalent to 52.21 MtCO₂eq) by 2035 (NDC).
Renewable Energy (RE)	<ul style="list-style-type: none"> • Target 52% of installed electricity capacity from renewable sources by 2030: 20% solar, 20% wind, and 12% hydro (NDC). • Target 70% of RE in the electricity mix by 2040 and 80% by 2050 in terms of both energy and capacity (Low Carbon Strategy).
Power Sector	<ul style="list-style-type: none"> • By 2020, establish wind farms on several sites for a total capacity of 1,467 MW (NDC). By 2030, establish wind farms on several sites for a total capacity equivalent to 2,180 MW (NDC). • By 2030, install of CSP power plants and PV on several sites for a total capacity of 4,000 MW (NDC). • By 2030, pumped storage energy transfer stations and hydroelectric power plants totalling 1,098 MW of capacity (NDC). • By 2025, extend the Tahaddart combined cycle power plant by 450 MW (NDC). • By 2030, install an additional 450 MW of combined cycle technology running on imported NG (NDC).
Energy Efficiency (EE)	<p>Achieve energy savings of 20% in building, industry and transport by 2030, divided as follows: 17% for industry; 24.5% for transport; 14% for the city, housing and tertiary sector; and 13.5% for agriculture and sea fishing (NDC).</p>
Electrification	-
Low-Carbon Hydrogen	<p>Priority is given to green hydrogen for export and as feedstock in industry (fertilisers).</p> <p>The introduction of hydrogen in transport, and the trade-offs between this use and other potential uses (industry, balancing of the electricity grid, export) may arise in 2040-2050 (NDC).</p>

Hydrogen & Ammonia Exports:

- Reference scenario: 7.3TWh (2030), 32.6TWh (2040), 81.4TWh (2050) (H₂).
- Optimistic scenario: 15.4 TWh (2030), 65.1 TWh (2040), 162.8 TWh (2050) (H₂).

Synthetic Fuels Exports:

- Reference scenario: 3 TWh (2030), 13.3 TWh (2040), 33.3 TWh (2050) (H₂).
- Optimistic scenario: 6.3 TWh (2030), 26.7 TWh (2040), 66.7 TWh (2050) (H₂).

Domestic Market:

- Reference scenario: 4 TWh (2030), 22 TWh (2040), 40 TWh (2050) (H₂).
 - Optimistic scenario: 9 TWh (2030), 42 TWh (2040), 77 TWh (2050) (H₂).
- The hydrogen strategy sets a target for production for different applications, including industry, transport (light vehicles and aviation), and the residential sector (water heating and cooking) (H₂).

Industrial Sector

By 2030, energy savings of 17% are targeted for industry (NDC).

For the unconditional GHG reduction objective, the industrial sector represents half of the national mitigation effort by 2030, with the phosphate sector alone accounting for 27.5% of Morocco's targets (NDC).

In the longer term (2030), the introduction of hydrogen in industry and export will emerge (NDC).

Implement minimum energy performance standards (MEPS) for electric motors above 75 kW (NDC).

Promote the use of LPG and biomass for the industrial sector as an alternative to fuel oil (NDC).

Install 1,500 MW of PV on industrial site rooftops between 2021 and 2030 for self-consumption (NDC).

For the cement industry:

Replace fossil fuels with used tyres, household waste, and olive pomace as alternative fuels (NDC).

Replace clinker with fly ash in cement production, thereby reducing clinker use and associated GHG emissions (NDC).

Replacement of fossil fuels (petroleum coke) with WWTP sludge (NDC).

For the phosphates industry:

Transport phosphate by slurry pipeline to replace trains; install cogeneration power plants, heat recovery systems and solar farms; replace fuel oil used for phosphate drying with solar energy; and capture and recover CO₂ process emissions (NDC).

Services Sector	<ul style="list-style-type: none"> • Encourage the use of RE and EE in all public administrations (NDC). Implement an EE programme in the tourism sector, including 300,000 low-energy lamps, 300,000 m² of solar water heaters and application of the thermal building regulation code (NDC). • Implement an EE programme in public lighting in Morocco's major cities (NDC).
Household Sector	<ul style="list-style-type: none"> • By 2030, target energy savings of 14% for the city, housing and tertiary sector (NDC). • Implement a national plan for the development of solar water heaters (40,000 m²/year) from 2010 to 2020 (NDC). • Implement a programme for widespread use of LED lamps in the residential sector by 2030; targeting 40 million CFLs and 40 million LEDs (NDC). • Implement the Minimum Energy Performance Standard (MEPS) for energy-efficient refrigerators and air conditioners (NDC). • Adopt the Code of Thermal Construction Regulations in Morocco in residential and tertiary buildings (NDC). • Install of PV solar panels of 1 GWp, by 2030 for self-consumption for the residential and tertiary sectors (NDC).
Transport Sector	<ul style="list-style-type: none"> • By 2030, target energy savings of 24.5% for transport (NDC). Increase the share of ecological cars (hybrid or electric) in the state fleet by 30% (NDC). • In the short term, improve the performance of vehicles placed on the market through regulation (NDC). • In the medium term, develop a strategy for the electrification of all types of vehicles, including scooters, cars, light commercial vehicles, and buses (NDC). • In the longer term (by 2030): hydrogen use in transport is expected to emerge (NDC). • Provide large cities with high-capacity public transport using renewable energy (NDC). • Extend the Casablanca and Rabat tramway networks (NDC). • Limit emissions of polluting gases from vehicle emissions. From 2023, the standard requires manufacturers to produce cleaner cars, with respect to fine particle and nitrogen oxide emission rates. Thus, from January 2023, all new passenger and commercial vehicles (categories M and N) placed on the Moroccan market had to comply with the Euro 6 standard (NDC).

- The bonus-malus system encourages the purchase of low-CO₂ vehicles and penalises the purchase of the most polluting models (NDC).
- Renewal and Breakage Programme grants renewal and scrappage bonuses according to eligibility conditions defined in the framework of the finance laws (NDC).
- Promote good eco-driving practices (NDC).
- Apply CO₂ emission performance standards to new passenger cars and light commercial vehicles (NDC).

Agriculture Sector

By 2030, target energy savings of 13.5% for the agriculture and the sea fishing sector (NDC).

Target a 25% reduction in energy consumption in the agricultural sector (NDC).

Modernise the agricultural sector to increase agricultural GDP from 60+ to 90 billion dirhams to reach 110 to 150 billion dirhams by 2020 and reach an export value of 44 billion dirhams by 2020 (NDC).

Promote RE (biomass, solar, etc.) in irrigation, particularly through the use of solar pumping in water-saving irrigation projects (NDC).

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- Establish a 40 MW wind farm to supply energy to the Dakhla seawater desalination plant (NDC).

- By 2030, the country aims to produce 1.7 billion m³ of desalinated water annually ([Moroccan Ministry of Equipment and Water](#)).

3.8 Palestine

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	<ul style="list-style-type: none"> • Palestine’s total GHG emissions were 3.2 MtCO₂eq in 2011 and are expected to increase to 15.93 MtCO₂eq for the BAU Status Quo, where the Israeli occupation continues, and to 22.5 MtCO₂eq for the Independence scenarios, where the Israeli occupation ends by 2040 (NDC). • Palestine targets a conditional reduction of 17.5% (equivalent to 2.8 MtCO₂eq) under the Status Quo Scenario and 26.6% (equivalent to 4.6 MtCO₂eq) under the Independence scenario (NDC).
Renewable Energy (RE)	<ul style="list-style-type: none"> • Generate 20-33% of electricity from RE by 2040, primarily from solar PV (NDC). • Increase the use of solar thermal energy, including solar water heaters, solar heating and solar fruit driers (NDC).
Power Sector	Upgrade the electricity grid (West Bank) (NDC).
Energy Efficiency (EE)	Improve energy efficiency by 20% (versus BAU) across all sectors by 2035 (NDC).
Electrification	-
Low-Carbon Hydrogen	A hydrogen strategy has yet to be developed or adopted.
Industrial Sector	<ul style="list-style-type: none"> • Generate solar electricity for medium- to large-scale commercial and industrial applications (West Bank) (NDC). • Use municipal solid waste as a substitute for 30% of pet coke in cement production by 2040 (5% in 2025, linear increase until 30% in 2040) (NDC). • Conduct energy audits and maintenance to improve energy efficiency in industry (Gaza Strip) (NDC).
Services Sector	Generate solar electricity for medium- to large-scale commercial applications (West Bank) (NDC).
Household Sector	-

Transport Sector

- Reduce passenger vehicle fleet emissions by 8% by 2030, and 24% by 2040 (NDC).
- Scrap 60% of vehicles older than 20 years by 2030 and all such vehicles by 2040 (NDC).
- Replace 20% of all small transit vehicles with larger capacity buses by 2030, and 40% by 2040 (NDC).
- Reduce the overall number of vehicles by 20% by 2030, and 40% by 2040 (NDC).

Agriculture Sector

Conditional target: increase the total area of forest land by 2% annually until 2040 (NDC).

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Construct the Gaza Central Desalination Plant by 2025 to provide 55 million m³ of fresh drinking water per year (NDC).

3.9 Syria

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	Total GHG emissions in Syria in 2005 were 79.1 MtCO ₂ eq, as reported in the NDC (NDC).
Renewable Energy (RE)	RE use in Syria is expected to reach approximately 10% of total electricity production by 2030 (NDC).
Power Sector	-
Energy Efficiency (EE)	<ul style="list-style-type: none"> • Agricultural sector: 10% (2024-2028), 5% (2029-2030). • Industrial sector: 10% (2024-2028), 10% (2029-2030). • Residential sector: 5% (2024-2028), 10% (2029-2030) (National Strategic Plan).
Electrification	Target a residential electrification rate of 100% by 2024-2028 (National Strategic Plan).
Low-Carbon Hydrogen	A hydrogen strategy has yet to be developed or adopted.
Industrial Sector	<ul style="list-style-type: none"> • Expand RE use and replace fossil fuels with gas in energy-intensive industries such as cement (NDC). • EE targets for the industrial sector: 10% (2024-2028), 10% (2029-2030) (National Development Plan).
Services Sector	-
Household Sector	<ul style="list-style-type: none"> • Target a residential electrification rate of 100% by 2024-2028. • EE targets for the residential sector: 5% (2024-2028), 10% (2029-2030). • RE targets for the residential sector: 5% (2024-2028), 10% (2029-2030). • Increase quality of household supply by 20% (2024-2028), 40% (2029-2030) (National Development Plan).
Transport Sector	<ul style="list-style-type: none"> • Encourage the use of large buses, adopting mass transit, and rehabilitate and develop railway lines (NDC). • Improve the quality of fuel used in transport, introducing green diesel and blue gasoline (NDC).

- Encourage the use of gas-powered buses and low-emission vehicles operating with modern technology (gas, electric, hybrid) (NDC).
- Prohibit the import of used vehicles more than three years old and follow up on studies to replace ageing vehicles in the transport fleet (NDC).
- Increase maritime demand by 200% (2024-2028) and 300% (2029-2030) (National Development Plan).
- Increase Rail demand by 200% (2024-2028), 300% (2029-2030) (National Development Plan).

Agriculture Sector

EE targets for the agricultural sector: 10% (2024-2028) and 5% (2029-2030) (National Development Plan).

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3.10 Tunisia

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	<p>Tunisia's total GHG emissions were 35 MtCO₂eq in 2010 and are expected to increase to 63.2 MtCO₂eq by 2035 under the BAU scenario (NDC). The country targets to reduce emissions by 31% unconditionally (equivalent to 19.6 MtCO₂eq) and 31% conditionally (equivalent to 19.6 MtCO₂eq) by 2035 (NDC).</p>
Renewable Energy (RE)	<ul style="list-style-type: none"> • The aim is to achieve a share of RE of 35% in the electricity mix by 2030 (Energy Strategy). • The strategy targets installation of 4,850 MW of RE capacity by 2030 and 8,530 MW by 2035 (Energy Strategy). • Implementation of the strategy is projected to achieve an 18% RE share of primary energy consumption by 2035 (Energy Strategy).
Power Sector	<ul style="list-style-type: none"> • Energy sector emissions are targeted to be 34% lower than the BAU scenario, totalling less than 27 MtCO₂eq under the low-carbon (LC) scenario by 2030 (NDC). • Tunisia aims to reduce CO₂ emissions from the energy sector by 36% by 2030 and 46% by 2035, compared to the BAU scenario (Energy Strategy). • Energy intensity is expected to decrease at an average rate of about 2.8% per year between 2021 and 2035 (Energy Strategy). • Primary energy intensity is expected to decline at an average annual rate of 3.6% (Energy Strategy). • Develop the Zarat gas field by 2030 at the latest (Energy Strategy). • Resume of oil and gas exploration with an indicative target of 30 wells by 2035 (Energy Strategy). • Construct an LNG infrastructure by 2027 and 2030 at the latest to ensure supply and storage safety (Energy Strategy). • Establish an electricity connection with Italy before 2027 (Energy Strategy). • Reform the energy tariff system, taking into account its social dimension (Energy Strategy). • Establish an independent energy regulator to facilitate investments in RE and regulate the market for petroleum products, following the liberalisation of prices (Energy Strategy). • Switch from natural gas to renewable energy, given that solar and wind represent the least-cost solution for producing electricity (CCDR).

	<ul style="list-style-type: none"> • Improve the flexibility of the power system to better accommodate RE integration through interconnections with neighbouring countries, battery storage, pumped hydro storage and demand-side response (CCDR). • Tunisia could develop into a clean energy hub both for decarbonised electricity and green hydrogen (CCDR). • Compressed gaseous hydrogen could be mixed with natural gas (at 15–20%) and exported via the existing TransMED gas pipeline to Italy, or in pure form via a dedicated pipeline to be built in the future (CCDR).
Energy Efficiency (EE)	The aim is to reduce primary energy consumption by 30% by 2030 (Energy Strategy).
Electrification	<ul style="list-style-type: none"> • The electrification of end uses (coupled with the use of RE for electricity production) is a key factor in decarbonisation. The share of electricity in final energy consumption is expected to increase from 24% in 2021 to 30% by 2035 (Energy Strategy). • Hydrogen as a fuel for heat generation in buildings can be injected into the natural gas grid (up to 20%) to generate heat. This option is not considered at this stage because other technologies (e.g. heat pumps) offer more efficient and competitive solutions (H₂).
Low-Carbon Hydrogen	<p>The main targets are to export 210 TWh (6.3 Mt) H₂ per year by 2050 to the EU by pipeline and supplying the local market with 66.7 TWh (2 Mt), in the form of H₂ or derivatives, such as green ammonia, green methanol and green synthetic fuels.</p> <p>By 2030: 0.7 TWh (20 kt) for the local market, 10 TWh (300 kt) for export, 3.85 GW electrolyser capacity, 5 GW of RE.</p> <p>By 2035: 4.7 TWh (140 kt) for the local market, 33 TWh (1000 kt) for export, 12.9 GW electrolyser capacity, 16.4 GW of RE.</p> <p>By 2040: 16 TWh (480 kt) for the local market, 54 TWh (1630 kt) for export, 23.3 GW electrolyser capacity, 28.4 GW of RE.</p> <p>By 2045: 36 TWh (1080 kt) for the local market, 107 TWh (3220 kt) for export.</p> <p>By 2050: 63 TWh (1900 kt) for the local market, 213 TWh (6400 kt) for export, 86.8 GW electrolyser capacity, 100 GW of RE.</p> <p>Establish full-scale pilot projects for the production of green hydrogen (Energy Strategy).</p>

Industrial Sector	<ul style="list-style-type: none"> • GHG emissions from the process sector would reach 7.2 MtCO₂eq in 2030, a 13% decrease (1.1 MtCO₂eq) compared to the BAU scenario (NDC). • Launch the cement NAMA and carbon pricing instruments through EE, RE, use of solid waste alternative fuels (RDF) and better segmentation of the cement market to lower the clinker/cement ratio (NDC). • Develop large-scale energy efficiency programmes in the industrial sector (Energy Strategy). • For the industrial sector, cost-effective measures include improving production efficiencies, increasing the use of alternative cleaner fuels (including RE by switching to electricity and increasing the use of green hydrogen in place of fossil fuels), reducing waste across product life cycles, and deploying carbon capture and storage (CCS) for the remaining emissions (CCDR). • Transitioning to cement types that do not rely on burning clinkers may also be a viable alternative (CCDR). • Another technology being investigated is the use of CSP to produce high-temperature heat (CCDR). • All industries that consume more than 800 tonnes of oil equivalent per year are required to carry out an energy audit every five years to benefit from a 70% subsidy. However, the obligation relates only to conducting audits and not to implement EE measures (CCDR). • Implement new regulatory and innovative finance models to increase EE investments and new approaches to electricity delivery, including renewable energy self-generation and co-generation (CCDR).
Services Sector	<p style="text-align: center;">-</p>
Household Sector	<ul style="list-style-type: none"> • Hydrogen as a fuel for heat generation in buildings can be injected into the natural gas grid (up to 20%) to generate heat. This option is not considered at this stage because other technologies (e.g. heat pumps) offer more efficient and competitive solutions. • Expand and intensify the natural gas network to supply an additional 1.2 million households by 2035 (Energy Strategy). • Develop large-scale energy efficiency programmes in the building sector (Energy Strategy). • The most important decarbonisation measures for the building sector focus on improving EE through: <ul style="list-style-type: none"> - Better insulation. - Using more efficient appliances for lighting, cooking, heating and cooling.

- Including rooftop solar PV and solar water-heating for poor and vulnerable households.
 - Implementing minimum energy performance standards and energy labelling for appliances (such as refrigerators, air conditioners, heaters and light bulbs).
 - Using more efficient appliances for lighting, cooking, heating and cooling.
 - Including rooftop solar PV and solar water-heating for poor and vulnerable households.
 - Implementing minimum energy performance standards and energy labelling for appliances (such as refrigerators, air conditioners, heaters and light bulbs).
 - Rolling out building codes and labelling for new buildings
- Gradually retrofitting existing buildings, starting with major public buildings (CCDR).

Transport Sector

- High long-term potential for hydrogen penetration in HDVs and buses in dedicated fleets (H₂).
- Strong potential in the short, medium and long term for the refuelling of ships docking in Tunisia (H₂).
- Ship Fuel: Ammonia - Methanol - Hydrogen (H₂).
- Aviation: hydrogen or synthetic fuel aircraft (jet fuel/methanol): Medium to high long-term potential (H₂).
- Develop large-scale EE programmes in the transport sector (Energy Strategy).
- Establish the necessary infrastructure for the widespread adoption of EVs (Energy Strategy).
- “Avoid-shift-improve” framework includes:
 - “Avoid” refers to meeting mobility needs with fewer vehicular travels (CCDR).
 - “Shift” refers to switching from the currently dominant private car model to more sustainable modes, including walking, cycling, public transport, and rail (CCDR).
- “Improve” refers to increasing the energy efficiency of vehicles and promoting electromobility and the use of green hydrogen (CCDR).
- Improve motor vehicle fleet composition by enforcing emission standards and the mandatory retirement of ageing vehicles (CCDR).
- The maritime and port sector is rapidly transitioning by improving fuel efficiency, increased use of green fuels and implementation of EE measures at facilities (CCDR).

- Under the net-zero strategy, STEG assumes that all new car sales after 2040 will be electric vehicles, with early retirement of conventional cars starting in 2035 (CCDR).
- Green hydrogen would be used in buses and freight trucks in 2050 (CCDR).
- Experience from comparable regional counterparts suggests that used car imports could serve as an entry point for vehicle electrification (CCDR).
- Tunisia already has a robust set of measures in place to manage the used car imports, including a progressive age-related tax and a five-year age restriction (CCDR).
- Confirm the priority given to public passenger transport through investments in rail infrastructure and rolling stock, and develop the rail transport sector for people and goods ([Transport White Paper](#)).

Agriculture Sector

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Data Centres and Desalination

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3.11 Türkiye

Item	Targets/Proposed Measures (Reference)
Emissions Reduction	<p>Türkiye's total GHG emissions were 477 MtCO₂eq in 2012 and are expected to increase to 1,175 MtCO₂eq by 2030 under the BAU scenario (NDC).</p> <p>Türkiye targets a 41% unconditional reduction in emissions (equivalent to 480 MtCO₂eq) by 2030 (NDC).</p>
Renewable Energy (RE)	<p>Target 52.9 GW solar, 29.6 GW wind, 3.1 GW hydro and 7.2 GW nuclear by 2035.</p> <p>Target a 55% RE share in electricity generation by 2035 and 69% by 2050 (NEP).</p>
Power Sector	<p>Targets include installed power capacity for: 52.9 GW of solar, 29.6 GW of wind, 35 GW of hydroelectric, and 7.2 GW of nuclear by 2035. In addition, Türkiye commits to reaching a battery capacity of 7.5 GW and an electrolyser capacity of 5 GW by 2035 (NEP) .</p>
Energy Efficiency (EE)	<p>Reduce Türkiye's energy intensity by at least 35.3% over the period 2020-2035 (NEP).</p>
Electrification	<p>Annual average electricity consumption is expected to increase by 3.7% in the industrial sector, 2.3% in the residential sector and 2.2% in the services sector (NEP).</p>
Low-Carbon Hydrogen	<p>Reduce the cost of green hydrogen production to less than \$2.4/kgH by 2035 and less than \$1.2/kgH by 2053. (Long Term Climate Strategy).</p> <p>Increase electrolyser installed power capacity to 2 GW by 2030, 5 GW by 2035 and 70 GW by 2053 (Long Term Climate Strategy).</p>
Industrial Sector	<p>In the manufacturing sector, the electricity share in final energy consumption is projected to rise from 34.7% to 38.7% in 2025 (Long Term Climate Strategy).</p> <p>The industrial sector is expected to see a 3.7% annual increase in electricity consumption during the forecast period (Long Term Climate Strategy).</p> <p>Increase the use of biofuels, refuse-derived fuel (RDF), alternative fuels and raw materials in industrial facilities (Long Term Climate Strategy).</p>

	<p>Support the adoption of digital technologies (e.g. IoT, smart sensors) and domestic equipment.</p> <p>Promote cogeneration, waste heat recovery, and industrial symbiosis (NEEAP).</p>
Services Sector	<p>In the services sector, annual electricity use is anticipated to grow by 2.2% (Long Term Climate Strategy).</p> <p>Public buildings under obligation to appoint energy managers must achieve 30% energy savings by 2030 (NEEAP).</p>
Household Sector	<p>Electricity consumption in the residential sector is projected to rise by 2.3% annually over the forecast period (Long Term Climate Strategy).</p> <p>Fully exploit geothermal potential and waste heat from industries and power plants for district heating (NEEAP).</p>
Transport Sector	<p>Ensure the balanced utilisation of transport modes in freight and passenger transport by reducing the share of road transport and increasing the shares of maritime and rail transport (Long Term Climate Strategy).</p> <p>Establish a national fast charging station network to promote electric vehicle adoption (Long Term Climate Strategy).</p>
Agriculture Sector	<p>Encouraging the renewal of tractors and combine harvesters with more energy efficient solutions. Expand the use of RES in agricultural processes (NEEAP).</p>
Data Centres and Desalination	<p>Pilot to reduce data center electricity costs in public institutions (NEEAP).</p>

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