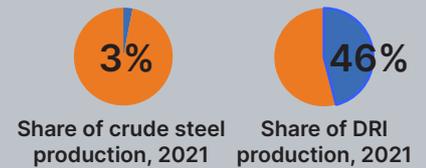


Fact Sheet:

Steel decarbonisation opportunity in Middle East and North Africa (MENA)



DRI PRODUCTION FIGURES

	Mt	%
Iran	31.85	58
Saudi Arabia	6.13	11
Egypt	5.23	10
UAE	3.66	7
Algeria	3.08	6
Oman	1.70	3
Bahrain	1.51	3
Libya	0.88	2
Qatar	0.79	1
Total	54.83	100



The dominant primary steelmaking technology in the MENA region is gas-based DRI-EAF (direct reduced iron-electric arc furnace).



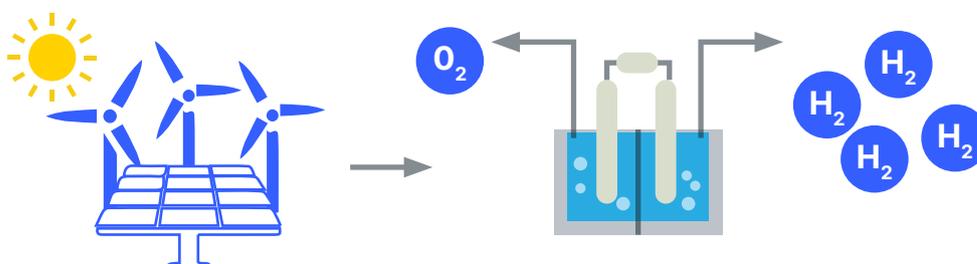
MENA could be a global leader of steel decarbonisation if the region shifts promptly towards green hydrogen and renewables.

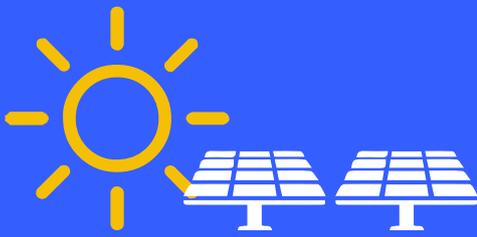


MENA's world-leading solar potential will allow for green hydrogen production at a competitive price.

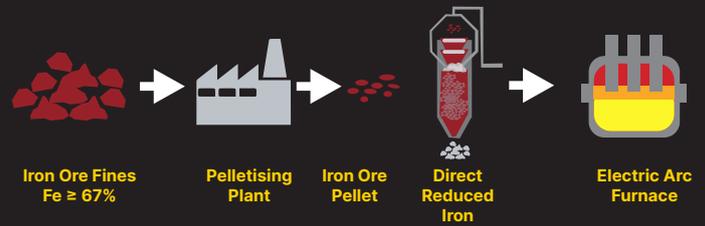
Middle East countries are already investing in renewables and green hydrogen that could be used domestically to produce low-carbon steel to meet growing global demand.

	2021	2030	2050	Net capacity additions by 2050 (GW)
 Wind	1%	4%	9%	83
 Solar	2%	7%	24%	334

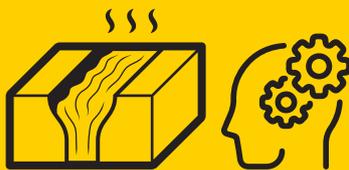




The MENA region is blessed with reliable solar radiation. MENA has the highest photovoltaic power potential capacity globally and could theoretically produce more than 5.8 kilowatt hours (kWh) per square metre daily.



MENA's steel and mining sector has already invested in the upstream value chain and can supply the high-quality iron ore pellets to feed steel companies. Iran, Oman and Bahrain are the largest DR-grade pellet producers with capacity to supply the region.



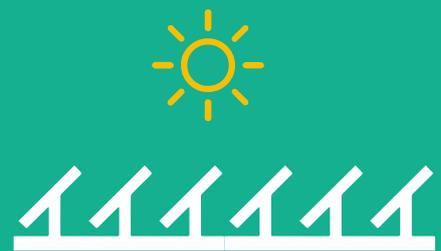
MENA's knowledge of this specific steel technology is an invaluable asset. Among the most important steel decarbonisation pillars, this production knowledge, coupled with further work on iron ore beneficiation, pelletising and DR plants, will greatly assist MENA's green transition.



Compared to other regions, MENA has in situ DRI-EAF capacity, which means no extra investment is needed to replace the base technology. All new investment could be focused on producing green hydrogen and expanding renewables.



MENA could possibly replace 30% of its natural gas with hydrogen in the existing fleet of DR plants without major modification of the equipment, then move towards 100% green hydrogen in a second phase.



Photovoltaic installation covers acres of land, which is less of a barrier in the MENA area given the available expanse of uninhabited lands with ample sunlight.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

www.ieefa.org