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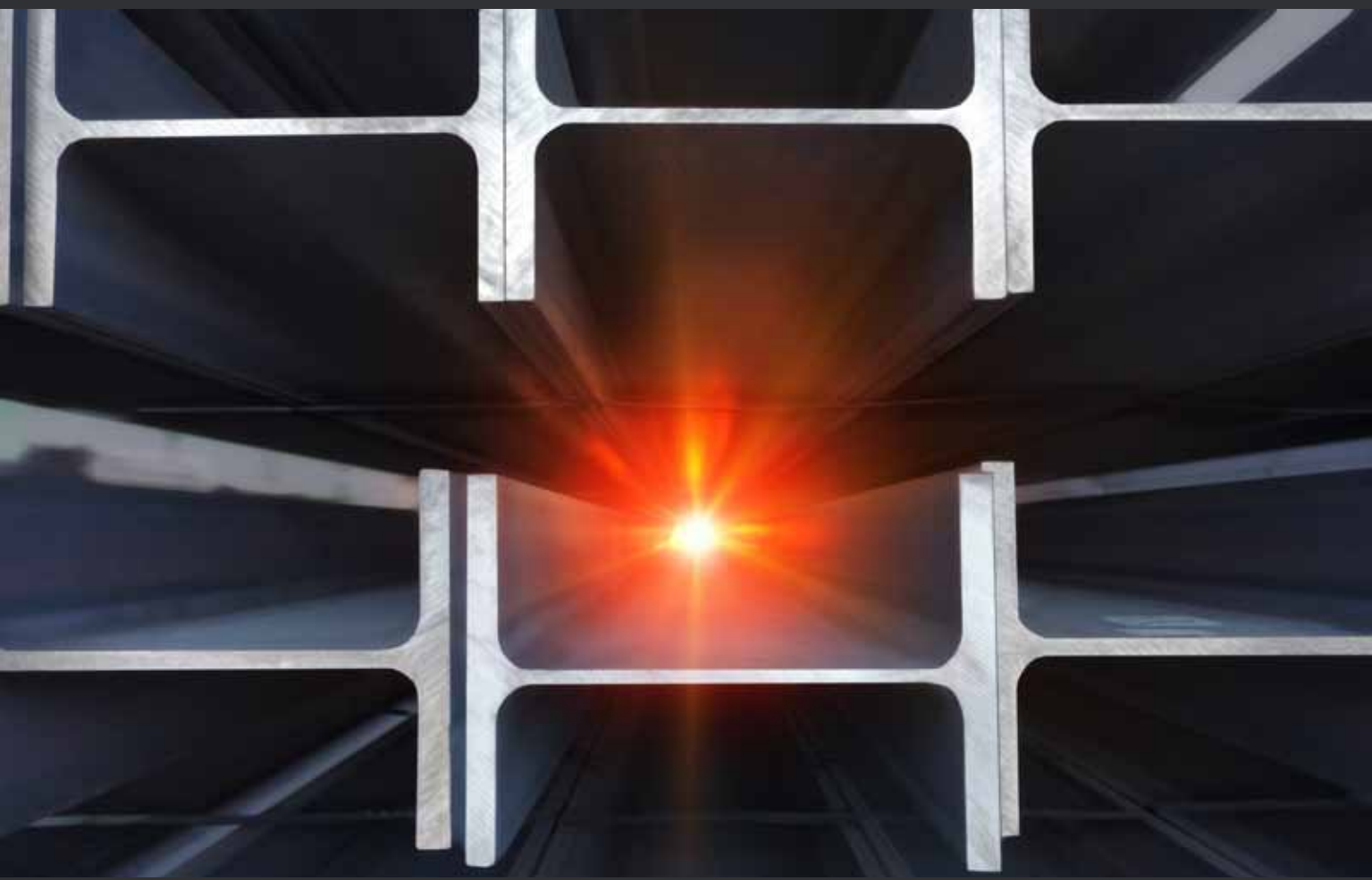
EMIRATES STEEL

SHAPING A LOW CARBON FUTURE



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SHAPING A LOW CARBON FUTURE

The unwavering dedication Emirates Steel has towards producing only the finest quality products also extends to the company's commitment to health and safety, the environment and energy efficiency

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CEO of Emirates Steel
His Excellency Saeed G Al Romaithi

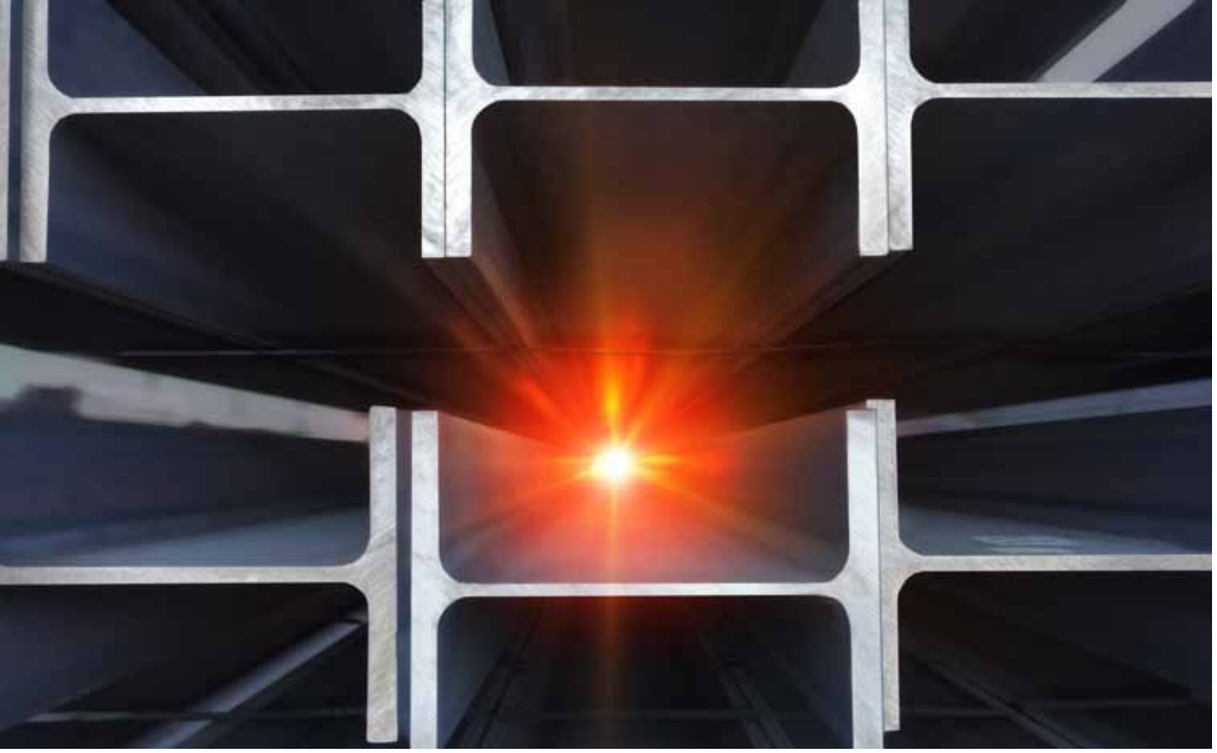
Historically known for its large hydrocarbon wealth, which gives it one of the highest GDPs per capita in the world, the UAE's decision in recent years to diversify its economic plans marked an important shift in the growth of the GCC country. It has subsequently proven to be a hugely successful move, with the country's non-oil and gas GDP outstripping that attributed to the energy sector, accounting for 64 percent of its total GDP.

This trend is reflected in Abu Dhabi, the wealthiest emirate of the UAE, with substantial new investment being made in industry, real estate, tourism and retail through the Abu Dhabi government's industrial diversification policy.

A driving force for implementing this policy is Emirates Steel. Wholly owned by Senaat, the UAE's largest industrial conglomerate, Emirates Steel is the only integrated steel plant in the UAE, utilising the latest technology to produce high quality rebar, wire rod and heavy sections.

Established in 1998, Emirates Steel grew in a relatively short period of time from a simple re-roller of imported steel billets to a complex integrated manufacturing plant, using modern solutions to meet market demand and generate value for its various stakeholders. In 2012, the company achieved a capacity of 3.5 million tons, following two expansions and an investment of $3 billion.

One of the core objectives at the heart of Emirates Steel today is its desire to meet market demand by producing steel in a safe and sustainable way. Amongst its



Emirates Steel is the largest steelmaker in the Middle East to produce structural steel up to a million tons a year

most important sustainable development priorities the company endeavours to provide the necessary training and personal protective equipment to maintain the safety of its employees. Also included in these priorities is Emirates Steel's on-going efforts to utilise the CO_2 it generates during the iron reduction process at its DRP plants, and its work to promote environment and resource conservation.

In November this year Abu Dhabi National Oil Company (ADNOC) and Masdar, the nation's renewable energy company created a joint venture company to develop commercial-scale projects for carbon capture, usage and storage (CCUS). It will build a $123 million CO_2 compression facility and a 50 kilometre pipeline, along which CO_2 will be pumped to ADNOC's oilfields.

Emirates Steel is a key partner in this project – the CO_2 its plants generate will feed the project when it goes operational in 2016 and the compression plant will be located close to its premises. The project

> "WHOLLY OWNED BY SENAAT, THE UAE'S LARGEST INDUSTRIAL CONGLOMERATE, EMIRATES STEEL IS THE ONLY INTEGRATED STEEL PLANT IN THE UAE"

800,000 TONS

Emirates Steel will free issue the captured CO_2 to Masdar

will sequester up to 800,000 tonnes of CO_2 annually – a massive contribution to Emirates Steel's carbon footprint, which at the same time will improve ADNOC's oil recovery. "CCUS presents a viable technology for energy-intensive industries to lower their carbon footprint," said His Excellency Saeed G Al Romaithi, CEO of Emirates Steel. "By capturing and eventually storing our CO_2 stream, Emirates Steel sets an example of supporting Abu Dhabi's sustainability objectives through operating environmental friendly heavy industries within the emirate of Abu Dhabi."

This is far from the first time that gas has been pumped underground to improve oil recovery, and in the past the UAE has used surplus hydrocarbon gases for this purpose. However, with the nation's rise in its energy demand, this CCUS project will allow the UAE to preserve its natural gas for domestic electricity generation. The feed from the Emirates Steel plant, containing 90 per cent CO_2, will be transferred to a common compression and dehydration facility at the project site in Mussafah. The feed stream will be compressed into dense phase; delivering a CO_2 stream through 50 kilometres of pipeline network, to be injected in an onshore field, operated by ADCO. It is worth noting that

4th steelmaker in the world licensed to manufacture nuclear grade steel

Emirates Steel is the first steelmaker in the world to capture its CO_2 emissions on this scale, with the possible exception of some North American projects.

Protection of the environment has always been a key priority when it comes to Emirates Steel's operations, with the company maintaining the belief that the steel production industry will only be able to show sustained development if it can help minimize negative impact on the environment. It is this thought process that underlines the company's ecological policy. "It is also for this reason that we are committed to continued compliance to all environmental regulations, to protect present and future human well-being in our local environment," Al Romaithi added.

Emirates Steel's environmental protection activities are based on a series of principles.

> "EMIRATES STEEL IS THE FIRST STEELMAKER IN THE WORLD TO CAPTURE ITS CO_2 EMISSIONS ON THIS SCALE OUTSIDE NORTH AMERICA"

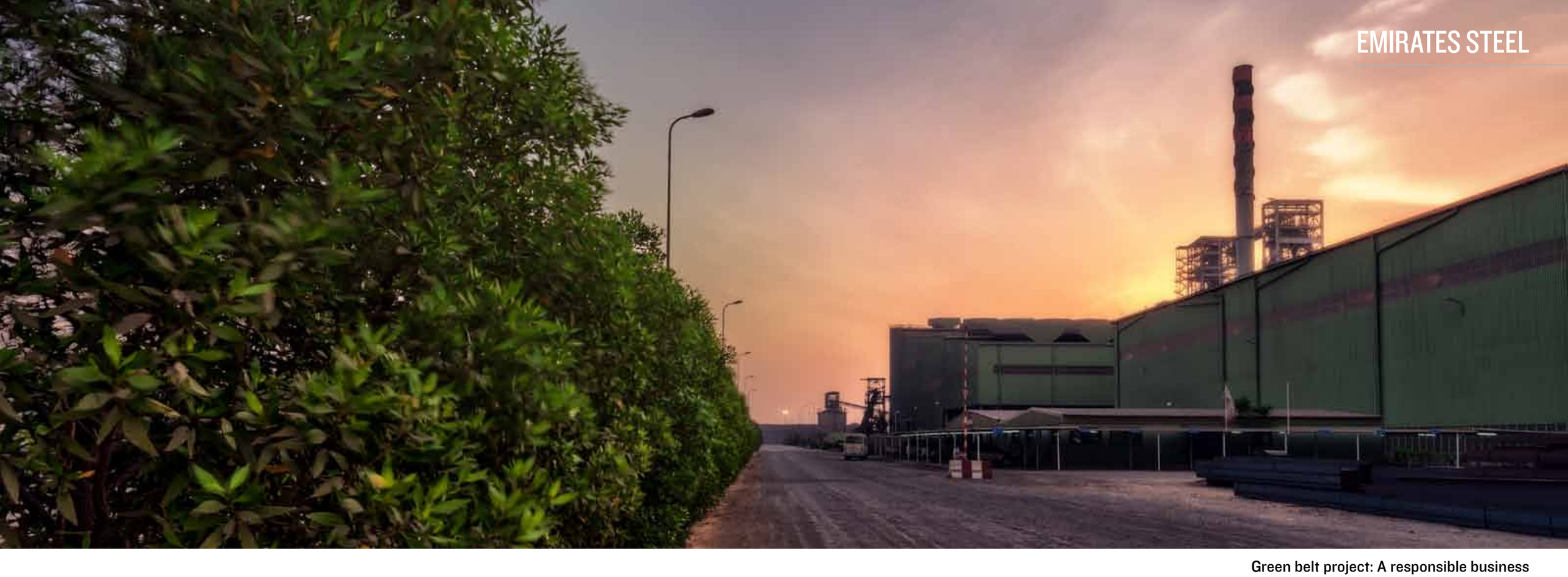
3,500 trees to be planted all around the steelmaking complex

Monitoring the environment is a key priority

These involve conducting business in a socially and environmentally responsible manner, using best available techniques, preventing environmental pollution, having an environmentally friendly approach at all times and reducing the generation and accumulation of waste products. The result of these actions helps to reduce the impact on the environment from the company's production activities, while at the same time aiming to provide a favourable living environment for the UAE community.

June 2009 saw the company put into action a comprehensive Environmental Monitoring Plan. Designed to fulfil the requirements of Abu Dhabi's Environmental Agency, the plan involves the monitoring of effluent, WTP sludge, stack emissions, ambient air quality, groundwater, ambient marine water, sediment, and noise emissions. An approved independent laboratory carries out the required measurements and monitoring reports are prepared and reviewed against regulatory limits.

Emirates Steel conducts regular stack monitoring for SOx, NOx, CO and PM to meet the requirements as set out by the Environment Agency of Abu Dhabi. Meanwhile, the company has installed state of the art technologies such as low NOx burners and dry de-dusting units across its operations to minimise emissions. This has helped the company to achieve regulatory compliance consistently according to the monitored parameters.



Green belt project: A responsible business

> "THE STEEL PRODUCTION INDUSTRY WILL ONLY BE ABLE TO SHOW SUSTAINED DEVELOPMENT IF IT CAN HELP MINIMIZE NEGATIVE IMPACT ON THE ENVIRONMENT"

When it comes to ambient air quality, a real time ambient air quality and meteorology monitoring station has been commissioned at the industrial City of Abu Dhabi. Owned by Emirates Steel, it is operated and maintained by the Higher Corporation for Specialized Economic Zones (ZonesCorp), the industrial sector regulatory authority.

The process of non-contact cooling in the steel making process sees the use of both seawater and fresh water. In its role of an environmentally conscious business, Emirates Steel has operations in place to ensure that the wastewater generated from the process undergoes different stages of treatment prior to reuse and discharge.

Furthermore, in its attempt to achieve excellence in the field of by-product recycling, constant efforts have been made to match the rates of recycling and generation for oxide fines, iron fines, slag, refractory, and mill scale. In addition, efforts have also been made to improve production processes and reduce waste.

Arguably one of the strongest examples of Emirate Steel's commitment to sustainability and responsible business is its Green Belt Project. This undertaking has seen the company initiate a tree-planting program around the perimeter of operations. In one area in particular, 150 palm trees have been planted together with more than 2,000 Conocarpus Erectus trees, also known as Damas trees, in addition to grass and ground cover. In total, an area of approximately 15,000 square metres has been planted. These new trees and other green areas are irrigated by the treated wastewater that previously would have been discharged back into the sea.

Protecting the environment with sustainable landscaping is a key priority at Emirates Steel. The company wants to be sure that it can minimize its environmental impact by drawing water very carefully from local sources. During Phase 1 of the Green Belt Project Emirates Steel has sought ways to embellish the surroundings by embarking on a green belt and associated road network project.

As part of this project, the company

The Emirates Steel Industrial Complex

is planting 3,500 trees around the main boundary fence and surrounding its stockyard. In addition to enhancing the green areas, the project helps the company to control dust emissions from plant activity and improves road safety. It is also used as a bunker for more storage space and as a controlled area for materials. The long-term plans of Emirates Steel from an environmental perspective revolve around building on the impressive efforts it has already made. Naturally this will involve an increase in environmental investments, which will enable the company to rank among the best GCC companies in terms of environmental protection, thus strengthening its competitive advantage and contributing to its own sustainable development.

The proof is there to see. Over the years, the company has striven to improve its processes and controls, has invested capital to increase efficiency and decrease energy use, and fostered a culture of resourcefulness and accountability.

As it looks to the future, Emirates Steel will soon become one of the first steel companies in the world to sequestrate CO_2 on a large scale. Together with other energy reduction initiatives, it is believed that this will provide the company with one of the lowest carbon footprints compared to any integrated steel plant in the world, a fact of which it can be immensely proud.

For more information about Emirates Steel visit:
www.emiratessteel.com

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