



Despite much progress, GCC spending on renewable energy R&D is still lower than other high income states

## SUSTAINABLE DEVELOPMENT

# A trillion dollar opportunity

The Gulf's renewable energy targets could pave the way for UN sustainable development goals to be realised sooner rather than later

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**I**T is 2030. There is no poverty, no hunger, we are healthy and we have equal opportunities. We have foundation education and fulfilling employment, and we are innovative. Our economies are growing and our energy and water is reliable and clean. Technology is interspersed in our lives and we live and work in safe, peaceful and resilient cities and

settlements. We use what we need, we conserve and regenerate on the land and in the ocean. Our impacts benefit human welfare and biodiversity.

This is the world we want according to the United Nations, which has set forth 17 sustainable development goals (SDGs) which are expected to be agreed in September by UN member states and to guide our next 15 years. The eight millennium development goals will expire this year and while several goals have been met and significant progress

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► has been achieved, there is still much more to be done.

According to the World Commission on Environment and Development, sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. It has three dimensions - economic growth, social inclusion and environmental protection - and is applicable across every sector, and most notably energy, water, transport, real estate, industry and waste management.

The Arab region has held several meetings attended by ministers, top officials and NGO leaders to understand the impact, potential pathways, challenges and opportunities. The Second Session of the Arab High-Level Forum on Sustainable Development was held in Bahrain in May this year and resulted in the Bahrain Document, a summary of 19 key messages which will be presented at the High-Level Political Forum on Sustainable Development in New York later this month.

The region is very willing to implement the SDGs, subject to the complexities of a diverse region with specific challenges to be overcome such as instability, population displacement, water scarcity combined with desertification, and high youth unemployment.

Yet global financing needs for sustainable development activities are substantial, with an estimated \$5 trillion to \$7 trillion required annually, according to the World Investment Report 2014 by the United Nations Conference on Trade and Development (UNCTAD).

Through prioritisation, classification and possible reallocation of public spending combined with private sector finance, sustainable development could be a one trillion dollar opportunity in the GCC, given current multi-billion dollar commitments and anticipated growth across all sectors.

Infrastructure contract awards were almost \$200 billion in the first half of 2015 and are expected to rise as the GCC seeks to ensure its citizens' needs are met. Energy-related subsidies are more than \$160 billion per year - based on the World Bank assumption that energy-related subsidies in the GCC



are 10 per cent of GDP. This is very topical given the various reform initiatives or discussions underway following months of lower oil prices than were forecast when national budgets were set. Public spending on healthcare and education are significant at around \$117 billion annually, according to the World Bank. The GCC already provides significant development funding to its neighbours (the intra-regional data is not available but total FDI outflows of \$27 billion were recorded in 2013, the UNCTAD report notes). FDI inflows to the GCC were around \$25 billion in 2013, figures show. However research and development (R&D) spending is low compared to other high income countries (around \$9 billion in 2014).

For GCC nations, SDGs present an opportunity to show leadership in how to foster a transformative low-carbon

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transition, making use of the region's abundant natural resources (most obviously high solar irradiance), combined with a youthful workforce and near new infrastructure. The region does not have the challenges of aged systems or an aged population.





Photo: First Solar

**For GCC nations, SDGs present an opportunity to show leadership in how to foster a transformative low-carbon transition, making use of the region's abundant natural resources, a youthful workforce and near new infrastructure**

With more competitive technology, renewable energy power rates are gradually reducing in the region

There is capital, and aspirations. It is not necessarily about creating new as it is in changing the priorities and focus.

The sustainable development economy relies on using all resources in a sustainable way through deploying finance, technology, innovation, education, training and demonstrating good governance. It is focused on enduring solutions for people and use of land, energy and water.

With a population nudging 50 million and with the world's highest resource use per capita, the GCC is considering how to transform the situation into one where win-win benefits abound, before any outside measures are imposed. Without a significant step change in the trajectory, the planet will exceed two degrees Celsius and the period of maximum carbon emissions is nearing,

alongside other possible breaches of planetary boundaries. It is not inconceivable that fossil fuels may be curtailed through laws and regulation to ensure a less warm future. The G7 summit in Germany in early June 2015 signaled the end of the fossil fuel era. For a hydrocarbon dependent region, this poses a serious threat - hence steps being taken to transform.

"In Saudi Arabia, we recognise that in the future, one of these days, we are not going to need fossil fuels....so we have embarked on a strategy to develop solar energy," the kingdom's oil minister, Ali al Naimi stated in an interview with *Bloomberg* in May this year.

Analysis conducted for the UAE's green economy show net benefits from sustainable actions: lower emissions, more jobs and GDP growth. "The

model of 'grow first, clean up later' needs to be shifted towards one which enables economic development and environmental sustainability to work together," Dr Rashid Ahmed bin Fahad, the country's environment and water minister, has been quoted as saying.

Renewable energy is one part of the sustainable development solution and it is a sector with many attributes - not only in the emissions it can negate but also in terms of a skilled workforce, a vibrant supply chain, R&D, and energy security. The GCC is already showing leadership when the lowest PV (photovoltaic) tariff in the world was announced a few months ago for a 200MW development in Dubai. Renewable energy targets for the GCC total over 60GW in solar, wind and geothermal, which could equate to a \$62 billion investment opportunity and the creation of almost two million direct jobs. If this ambition is realised, the sector's contribution to the GCC economy could be close to \$200 billion if an estimate for the avoided fuel subsidies is taken into account.

The success of the GCC in achieving the yet to be agreed SDGs will come down to several key enablers, which include direction from leadership, transparency and accountability, implementation and collaboration and capabilities. Collaboration is necessary for capacity building, the deployment of proven technologies and processes, and to forge new pathways. The GCC rail





Fossil fuel guzzling Gulf states are moving towards more sustainable forms of transport for goods and people



**'The model of 'grow first, clean up later' needs to be shifted towards one which enables economic development and environmental sustainability to work together'**

**Dr Rashid Ahmed bin Fahad, UAE environment and water minister**

» network is underway and the completed GCC Interconnection (GCCIA) are examples of the GCC working together to design, fund and operate fundamental infrastructure for the benefit and development of the region.

As Bahrain's deputy prime minister Shaikh Ali bin Khalifa al Khalifa stated at the beginning of the May meeting in Manama, we can build on what has already been accomplished by the region and move positively towards a comprehensive Arab vision for the post-2015 sustainable development era. ■

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#### GCC SUSTAINABLE DEVELOPMENT MILESTONES



##### **Bahrain**

- Awarded by UN for millennium development goals achievements
- First to introduce long-term economic vision including sustainability at its core
- Launched public bus network to provide affordable transport for all
- Introduced Empowering Bahraini Women awards
- Launched 5MW smart solar project.



##### **Kuwait**

- Announced updated development strategy in September 2014 prioritising sustainable development
- Activated National Fund for the Support of SMEs to increase private sector employment opportunities
- Launched pilot solar rooftop project and 2GW Shagaya renewable energy



##### **Oman**

- Finalising Oman Vision 2040
- In May 2015 won World Summit on the Information Society prize for an e-employment system, which provides information for almost two million employees across 203,000 private sector firms and government entities.

##### **Qatar**

- Hosted UN Climate Change conference COP18
- Opened Ras Laffan solar panel factory
- Won 2015 National Energy Globe Award for KAHRAMAA's Awareness Park (a science museum which uses renewable energy and disseminates information on electricity and water conservation).



##### **Saudi Arabia**

- Announced world's largest alternative energy program (100GW) of nuclear and renewable energy in 2011
- \$100 billion national rail system being implemented
- 100 water infrastructure projects underway valued at \$6.7 billion
- Participation of women in the labour force has increased

##### **UAE**

- Initiated 1GW Mohammed bin Rashid al Maktoum Solar Park in Dubai.
- Abu Dhabi is home to Masdar, IRENA and Shams 1 (one of the world's largest concentrated solar power plants)
- Multiple energy efficiency projects