

## **Innovating towards a renewable and sustainable future**

By now you will have heard about our plans to shift the Kingdom of Saudi Arabia's energy sector away from oil and establish ourselves as a world leader in renewable energy. To realise this ambitious goal, we in the KSA pavilion are showcasing this shift around three key pillars: Transformation, innovation, and growth.

In yesterday's blog I gave an overview of some of the main areas central to this transformation. Today, I want to use this space to look at some of the innovations we're driving to support that transformation. Because, if renewable energy sources are to truly replace hydrocarbons in the future, further innovation in emerging energy technologies is vital.

That is why the Kingdom of Saudi Arabia is investing in our universities and research centres to conduct ground-breaking research and development. In particular into large-scale energy storage – whether through batteries, compressed-air, or flywheel technology – that will be a major gamechanger in overcoming the intermittent nature of many renewable energy sources. Furthermore, these institutions are also leading research into new methods of power generation, water desalination and reuse, and electric and hydrogen fuel powered vehicles, representing a holistic approach to driving innovation towards a sustainable future.

However, our innovation quest is not limited to emerging technologies; we remain committed to our hydrocarbons sector, but are also committed to improving its efficiency and reducing its carbon footprint. For example, one of our flagship projects, the crude to chemicals (C2C) program developed by Saudi Aramco, is expected to remove or streamline several industrial processes, reducing costs and carbon. And we are also promoting R&D into carbon capture, utilisation, and storage solutions (CCUS) to support this transformation.

Finally, we recognise the need to innovate in the ways our energy sector is financed, particularly by stimulating international and domestic private sector participation to fund new projects and expansions. One such innovator is Tarshid, the National Energy Services Company, which is conducting large-scale retrofit projects in government and commercial buildings to support energy savings. To do this, it provides unique, robust, and independent financing solutions to support its private sector partners by covering retrofit and project management costs before recouping realized energy savings as a return on its investment.

These are examples are just some of the ways we're supporting innovation towards a renewable and sustainable future. To learn more visit our KSA pavilion here at the World Energy Congress, join our workshop, and visit the exhibits of the entities mentioned here and more besides. We look forward to welcoming you.