ENERGY TRANSITION

Sustainability Snapshots
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BDO

Energy transition is creating new energy consumption and production patterns

Energy transition refers to the global energy sector's shift from fossil-based systems of energy production and consumption — including oil, natural gas and coal — to renewable energy sources like wind and solar, as well as lithium-ion batteries. Trends that are driving structural change include -

1. **Decarbonisation:** incentives to reduce carbon-emission generating activities and transit to the low carbon economy
2. **Digitalisation:** new and improved technologies in sustainable energy sourcing and asset management
3. **Decentralisation:** new approaches to governance required from emerging decentralised electricity systems

The energy transition continues to increase in importance as investors prioritise ESG factors

The growth of electrification along with improvements in energy storage and conversion technologies, as well as increasing penetration of renewables into the energy supply mix are all driving the energy transition.

Renewables gain popularity
- Shift to smart energy systems is taking place
- Costs of green technology solutions are declining

Fossil fuels lose favour
- Coal-fired power plants are becoming unprofitable
- Overall global coal consumption is falling

Eco-investing is rising
- The green bond market is developing
- Sustainable debt issues are growing

Employment is advancing
- The number of job placements is expanding
- Employment stability is strengthening

Increased regulation globally is accelerating the shift towards clean energy

Regulations and commitments to decarbonisation are expanding, as governments vigorously realise the significance to tackle **environmental, social, and governance (ESG) related risks**:

- The UK government has **committed to reducing emissions by 80% by 2050** and has already outlined extensive plans for achieving the relevant sustainable targets
- The EU has **committed to the green economy** in its budget 2021-2027, and the new **EC Sustainable Finance Disclosure Regulation** has already come into force
- The US has returned to the **Paris Agreement under the executive order and Biden's agenda** also promises aggressive measures to confront the climate change tackle — the US recent 1.5 Tn USD budget proposal includes a **27% rise in overall clean energy spending**
- Canada has **pledged 17 Bn USD** in the Liberal Government's 2021 Budget **to promote green recovery** after COVID-19

More flexible energy system can mitigate business costs and risks

Opportunities	Challenges
Benefit from the rapid development of technologies: wind technology advancement and development of large-scale wind farms promote higher supply at a lower cost	**Energy systems and grid flexibility need investment:** more flexible systems, infrastructure, regional interconnectors, energy storage, demand-response.
Seize the growing demand for electrification: the demand is expected to grow quicker for electricity than for any other energy source	**Accommodate the necessary infrastructure:** EV[1] concentration increases, and the deployment of charging infrastructure runs into existing grid restraints
Capitalise on declining prices: the costs of renewables, including wind and solar energies, are now lower than the costs of traditional fuels	**Mitigate the need for longer-term backup capacity:** the seasonality constraints with periods of low variable renewables production

Notes: (1) Electric Vehicles

Energy transition becoming key to corporate strategy

Markets are noticeably impacted by the rising concerns of climate change, followed by responses from governments and industry bodies, who are imposing new policies and incentives. Therefore, for organisations to manage the uncertainties and reduce risks it is critical to understand how the energy transition and the low carbon economy will affect business.

Organisations like utility companies are evolving their business models through the recognition and adoption of Distributed Energy Resources (DERs).

Organisations are adopting renewable energy along with other decarbonisation strategies to lessen their emissions and carbon footprint in line with industry expectation.

Businesses are increasingly looking to establish, prepare, track, and report on their energy transition initiatives making them available to key stakeholders.

How BDO can help

BDO offers a range of sustainability-related services with in-depth industry expertise.

Energy / Environmental Assessment — end-to-end services for energy savings measures (assessment & implementation)

Energy Transition Advisory — ESG services (ESG strategy development & programme implementation)

BDO XGRC — Technology Platform — integrated services for risk-based material environmental impacts, ESG compliance & reporting

Reducing potential ESG risks & impacts	Enhancing a company's market position	Gaining new business opportunities

Successful case studies

1

Client description: Global mining organisation

Client objective: To implement a technology platform to establish, track and report their ESG / Sustainability compliance for their four mine sites as well has their HQ

BDO solution: BDO positioned a cloud based integrated sustainability solution where the management framework is structured around international standards and guidelines. The platform merges all organizational systems and processes in one common cohesive framework that drives business excellence and ensures continual improvement. The solution is modular and offers an Environment Management program which empowers organizations to manage their risk based environmental material impacts in an integrated manner. The platform uses a dynamic framework to measure, trend, and report on impacted areas i.e. materials, water, carbon footprint energy, biodiversity, effluents, and emissions amongst others.

2

Client description: Luxury European jewellery company & European manufacturing company

Client objective: Implement a carbon footprint study to track and report their CO2 emissions for both the headquarter and the stores, and establish the actions (energy efficiency, use of renewable energy renewable, and so on) able to reduce emissions and to reach the carbon neutrality in the mid-long term.

BDO solution: BDO ran an environmental assessment, including a carbon footprint study of the customer's emissions (Scope 1, 2 & partially 3) through an approach based on international standards and guidelines (ISO 14064-1 and GHG Protocol). The environmental dashboard and final report (or GHG Inventory) allowed to report all the emission sources (scope 1, 2 & partially scope 3) as well as identify the actions aimed to reduce CO2 emissions through i.e. energy savings measures. These actions allow the company to reduce and monitor the CO2 emissions and improve environmental issues management, as well as to strategically decarbonize its production in the mid-long term.

Connect with us

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