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Energy, resource industries locked into carbon countdown

BY RASH BEHARI BHATTACHARJEE

hat will the oil and gas sector look like in five years, when oil majors would have taken big steps towards their goal of net zero carbon emissions?

That future can be seen today in the industry's first movers towards the energy transition, says Bain and Co in its Global Energy and Nat-ural Resources Report, the first in a planned annual series.

Denmark's state oil and natural gas company, Dansk Olie og Naturgas, is one example At the turn of the millennium, when it saw its long-term existence in doubt, it adopted a climate strategy that led it to recapitalise the business, divest its oil and gas assets, and invest heavily in wind farms. Now rebranded as Ørsted, the company is

a global leader in renewable energy delivery, with nearly all of its profits from wind, the report states

The writing is on the wall

"The next five years will bring an intense period of change for industries in the energy and natural resources sector — gas, utilities, chemicals, mining and agriculture — as many reinvent themselves to tackle climate change and navigate the energy and resource transi-tions," says the global consultancy in a state-

ment to mark the release of its report. The impetus is coming from two increas ingly visible sources. The heavy hitters include investors who are shifting their money to new companies that are in tune with a sustainable future. They are lending weight to pressure groups that have been calling out the big names in the carbon-intensive economy as the climate action front has gained momentum.

"Shareholders and activists have made it clear that they want energy and natural resources companies to act now. Standing still in the sustainability movement is no longer an option," says Joe Scalise, head of Bain's global energy and natural resources practice.

Energy and natural resources (ENR) firms face two related challenges, the report says.

One is that greater scrutiny from the public over sustainability and greenhouse gas (GHG) emissions is making it harder to obtain capi tal for expansion. The second is that capital is flowing to their new competitors, which are disrupting these industries and beginning to take market share (see figure).

For added measure, investors are increas-ingly focusing on environmental, social and governance (ESG) criteria in allocating capital. Funds focused on ESG objectives have grown significantly. Action taken by ENR companies in the next

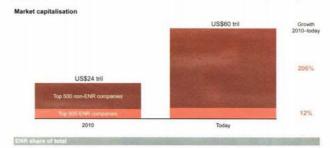
five years will determine their future course, the report forecasts.

"Incumbent players in energy and natural resources will either become leaders or continue to lose the public's faith and the support of the capital markets," it says. To make the transition effectively, compa

nies need to get three things right: innovation, impact and economics.

- Faced with the bleak prospect of peak oil, firms like Finland's Neste have embraced innovation to pivot from making petroleum products to becoming the world's largest producer of renewable diesel fuel. As corporate citizens come under scrutiny
- for their impacts on a diverse range of issues, ENR firms must work hard to maintain the ocial licence to be in business
- The transformation of Denmark's state oil and gas firm into a global leader in renewable energy delivery, mentioned above, shows the way for others in the same boat. Meanwhile, the barriers to funding and

The market cap of major energy and natural resources companies has grown in the past decade, but much less than in other industries



insurance for fossil energy are rising. The six largest US banks have pledged to finance only zero carbon projects by 2050 and major insurers have baulked at underwriting coal schemes, the report states.

27%

However, those who embrace the energy and resource transition are winning. US power generator Duke Energy is turning crisis into opportunity by making the largest energy transition in that country. This will involve a 50% to 70% reduction in its active coal units by 2030, as part of a US\$124 billion to US\$134 billion capital plan for 2021 to 2029. The way ahead for legacy energy and re-

source businesses is to turn confrontation into collaboration.

"The relationship between ESG investors and energy companies may be approach ing an inflection point," Bain says in its statement.

ESG investors' initial strategies of confrontation have led to a proliferation of ESG targets across the energy and resources sector, it notes.

"The next phase will be one of collaboration, where energy and resource companies should draw on the strength of their traditional busi-nesses to secure funding for capital expenditure in new assets and infrastructure that support the energy transition," the statement says.

This is a cue for managing change by trans-forming the relationship between ENR firms and ESG investors. "In recent years, we have seen capital flow

out of the energy and natural resources sec-tors into areas like tech, financial services and consumer products. However, ESG investors leaning into the energy incumbents can ar-guably have a greater impact than those sitting on the fence or disinvesting," says Peter Parry, chairman of Bain's Energy and Natural urces practice.

ENR companies are already responding to these new realities. Half of all firms in the sector have put the energy transition at the

centre of their strategy. However, although many of these companies have announced net-zero ambitions in 25 or 30 years, oil and gas, mining and energy utility companies still trail other industries in their climate commitments, the report states.

Incumbents like Malaysia's state oil com-pany Petronas are well placed to show leadership in the energy transition, says Dale Hard-castle, partner and co-director of Bain's Global Sustainability Innovation Centre, in emailed comments to The Edge.

Late last year, Petronas announced its aim to achieve net zero carbon emissions by 2050



12%

as part of its ESG strategy. It was the first Asian

"Petronas has the advantage of a strong incumbent position, a diversified portfolio and a pool of experienced and highly capable technical and managerial leaders. This and the focus of leadership on continuing to challenge its own conventional wisdom is a great strength as a company, and for Malaysia more

broadly," says Hardcastle. As one of the world's leading producers of natural gas, it has the chance to drive the energy transition within Malaysia and shape the global shift, he notes

Early this month, Shell Malaysia announced its renewable energy ambitions with the launch of the publication entitled "The Tree, The Sky, The Sun: A Pathway Towards Malay sia's Carbon-Neutral Future".

"Both strategies highlight a strong recogni-tion by the oil and gas sector in Malaysia that ons from fossil fuels will come at high cost in a carbon-constrained future," says Dr Gary William Theseira, technical adviser to the Malaysian Green Technology and Climate Change Centre (MGTC), the lead agency for Malaysia's transformation into a sustainable nation driven by green technology.

Two more notable developments are Was-co Energy's carbon footprint certification and Hibiscus Petroleum's inclusion in the FTSE-4Good Bursa Malaysia Index.

In their efforts to pivot, says Theseira in an email to *The Edge*, these companies have had to venture into heretofore unfamiliar territo-ry. Their tools include the use of green tariffs, renewable energy credits, renewable energy generation, tree planting and the purchasing of emissions offsets. "It may be too early to assess whether the

measures being undertaken by oil and gas companies will have the necessary punch to convince shareholders, investors, customers and other stakeholders of their commitment

to the new norms called for by the climate emergency," he says

Business uncertainty and turbulence will have to be skillfully navigated. "The fundamental challenge is how to move

fast enough and anticipate an uncertain future as many aspects of how the energy transition will play out — in Malaysia, Asean and globally — remain unclear," says Hardcastle. Additionally, many of the new businesses

Petronas could enter may be less profitable albeit carrying lower risks than its core portfolio in the legacy oil and gas sector, he adds.

In power generation, Tenaga Nasional Bhd, the country's largest electricity utility, leads in the switch to renewable energy (RE), with plans to more than double its RE generation capacity from 3.042MW to 8.300MW by 2025.

Tenaga is expanding its RE footprint through acquisitions and greenfield devel-opments, its president and CEO Datuk Baharin Din said to The Edge in a previous report (Cover story, July 12 issue).

It still has some way to go, since coal com-prised 48.9% of the utility's fuel mix in Peninsular Malaysia in 2020. However, revenue from its coal-fired plants will not exceed 20% of the group's revenue by 2030, Tenaga said in December last year.

In the big picture, under the country's Energy Transition Plan 2021-2040, Malaysia is targeting an energy mix of 31% RE in its installed capacity in 2025 and 40% in 2035.

In tandem, Malaysia will not build any new coal power plants, while more than 7,000MW of coal power plants' energy supply contracts will expire by 2033 and be replaced mostly by gas and RE.

However, the government has not discount-ed the option of extending the operation of

these plants when their contracts expire. "If so, the national energy regulator should seriously consider imposing a biomass cofiring mandate to reduce the grid emissions factor, a practice already adopted in practically all developed countries that still burn coal for energy," says Theseira. Merely cutting back on pollution will not

be enough to meet net-zero emission targets in time, says the Bain report. Additional in-novations like low-carbon hydrogen fuel may hold the key.

Businesses also need to tap into new sources of growth. As the world transitions from internal combustion engines to electric vehicles (EV), for example, attention is shifting from chemical catalysts for exhaust systems to EV batteries

The effort to reduce food-based greenhouse gas emissions is also resulting in changes to consumer behaviour, including a shift in diets. As plant-based dairy and meat alterna tives become more cost-competitive, they are expected to take up an increasing slice of the animal protein market.

These transitions look set to transform the way ENR companies do business. As consumer preferences change in favour of sustainability, companies need to rethink the value chain to figure out future profit pools.

"It will take breakthrough, innovative think-ing and a mentality geared toward innovation and experimentation to pull this off," the report says

Bain's Hardcastle says: "All companies are being asked to place a value on nature including forests. As part of their ESG strate-gies, global investors want to see a trajectory to more sustainable resource consumption and specific actions to insure that nature is being protected. Malaysian palm, timber and other firms need to proactively showcase how they are responsibly managing such resources to avoid risk." .

oil major to take that step.