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123 ... SAUDI TO FINALLY SEE NUCLEAR WISH COME TRUE



Prince Abdulaziz meeting Rafael Grossi, Director General, IAEA, in Riyadh

**Nuclear power would free
KSA oil currently burned for
electricity, boosting
export volumes**

BY ABDULAZIZ KHATTAK

SAUDI Arabia might finally be about to realise a nuclear ambition nursed for decades, after the US agreed to offer the Kingdom American reactor technology.

Prince Abdulaziz bin Salman, Saudi Energy Minister, and Chris Wright, US Energy Secretary, signed the civil nuclear cooperation agreement, known formally as a '123 Agreement' alongside a bilateral safeguards accord underpinning a partnership expected to run for three decades and generate tens of billions of dollars for the American industry.

Under Section 123 of the Atomic Energy Act 1954, Riyadh must place all facilities under International Atomic Energy Agency (IAEA) safeguards, guarantee

no diversion towards weapons, and secure Washington's consent before retransferring materials or pursuing enrichment.

Officials, such as Mike Waltz, US envoy to the UN, insist the programme is strictly civilian.

"There is no enrichment envisioned," he said, although a joint two-year study will assess whether an enrichment facility is later warranted.

Riyadh's motivation is domestic, and is in line with the diversification drive of Mohammed bin Salman, Saudi Arabia's Crown Prince.

Nuclear power would free oil currently burned for electricity, boosting export volumes and supporting new sectors including artificial intelligence (AI) and manufacturing.

For Saudi Arabia, access to nuclear technology enhances regional prestige and strengthens its economic and strategic position.

It could also support the domestic economy by fueling new sectors from AI to industrial manufacturing.

On the other hand, the US sees commercial value in the deal.

The US Department of Energy has already committed some \$80 billion to revive the domestic nuclear sector, including roughly \$18 billion in loans to Westinghouse for its AP1000 reactor line.

The construction of a single AP1000 takes close to a decade, and servicing contracts would bind the two nations commercially for a generation, while excluding Chinese and Russian suppliers from the Kingdom's nuclear build-out and reinforcing America's strategic footprint in the Gulf.

Donald Trump, the US President, has made implementation conditional on Riyadh joining the Abraham Accords, the normalisation framework with Israel first brokered in 2020.

Saudi Arabia has consistently declined to sign without a credible pathway to Palestinian statehood.

The agreement now awaits transmission to Congress, which retains a review period before it can enter into force. ■

**Exxon heir urges energy
firms to embrace
regeneration**



LAMARA Heartwell, great-granddaughter of Exxon co-founder William Stamps Farish and co-founder of OurOrigin.earth, argues that traditional energy boards must integrate legacy remediation costs into sustainable asset creation across global energy markets.

Speaking to **OGN** energy magazine, Heartwell said water scarcity, soil degradation, biodiversity loss and climate disruption are becoming material financial risks affecting every industry, including energy, and warned that investors ignoring these trends risk exposure to the largest systemic threats.

OGN EXCLUSIVE - FULL STORY ON 26

She contended that regenerative finance offers a commercially viable mechanism for oil and gas majors to manage multi-billion-dollar decommissioning and remediation liabilities, transforming former industrial sites into renewable energy hubs, restored wetlands and biodiversity corridors.

Heartwell rejected comparisons with compliance-driven ESG reporting, insisting regeneration instead measures net positive outcomes across soil carbon, water retention and community resilience. ■



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Kuwait's energy sector is shifting from a volume-driven producer towards one optimising value and capital structure



KUWAIT REBUILDS CAPACITY, COURTS FOREIGN CAPITAL AT UNPRECEDENTED SCALE

A decade-high production ceiling, a record offshore discovery and the largest foreign investment in Kuwait's history have reshaped the energy sector's financial and operational foundations this year

BY ABDULAZIZ KHATTAK

KUWAIT'S energy sector has spent the past year proving that state control and international capital are not mutually exclusive propositions.

Oil production capacity climbed to roughly 3.2 million barrels per day (bpd), the highest level in more than a decade, according to Tareq Al-Roumi, the Minister of

Oil of Kuwait and Chairman of the Board of Directors at the Kuwait Petroleum Corporation (KPC), even as the country continued to observe its OPEC+ quota of around 2.559 million bpd.

Capacity had stood at around 2.8 million bpd as recently as 2023, and Kuwait Oil Company (KOC) has separately indicated it expects the ceiling to keep rising towards the government's stated ambition of 4 million bpd by 2035.

That restraint on actual output has not slowed the sector's underlying expansion.

KPC, the state entity overseeing the industry, has pursued its long-term Strategy 2040 across five fronts simultaneously: Offshore exploration, unconventional gas, infrastructure monetisation, downstream integration, and decarbonisation.

The result is a sector shifting from a purely volume-driven producer towards one optimising value, cap-



ital structure and emissions intensity in parallel, without diluting the government's constitutional authority over its hydrocarbon wealth.

OFFSHORE DISCOVERIES, UNCONVENTIONAL GAS RESHAPE THE UPSTREAM BASE

In July 2024, KOC disclosed a giant offshore discovery at the Al Nokhatha field, east of Failaka Island, with preliminary reserves of 2.1 billion barrels of light oil and 5.1 trillion standard cu ft (Tcf) of gas, equivalent to roughly 3.2 billion barrels of oil equivalent (BOE).

Sheikh Nawaf Saud Nasir Al-Sabah, KPC's Chief Executive Officer, described the find as equal to three years of the country's entire oil output.

The well was already producing about 2,800 barrels of light oil and seven million cu ft (mmcf) of associated gas daily at the time of the announcement.

The momentum continued into January 2025 with a further offshore discovery at the Al Jlaiaa field, holding an estimated 800 million barrels of medium-density oil and 600 billion standard cu ft (Bcf) of associated gas, as part of an exploratory campaign spanning more than 6,000 sq km of Kuwaiti waters.

Onshore, the Mutriba field in northwest Kuwait entered commercial production on June 15, 2025, tapping unconventional and geologically com-

plex reservoirs across an area exceeding 230 sq km, with the over-pressured, organic-rich Najmah shale and the Makhul formation identified as the principal targets.

Mutriba is a technically demanding development.

First discovered in 1957 and confirmed as a viable petroleum system only in 2009, the field sits far from KOC's existing infrastructure and carries hydrogen sulphide content of up to 40 per cent, requiring specialised metallurgy and safety design.

Gas from the field is currently piped for processing at North Kuwait's Jurassic facilities pending dedicated infrastructure.

These technical demands prompted KOC to award SLB a \$1.51 billion integrated production management contract in early 2026 to support the field's next development phase, building on a long-term testing facility designed to handle up to 5,000 bpd and 7 mmcf of gas daily.

Alongside Mutriba, KOC commissioned Jurassic Production Facilities 4 and 5 to process non-associated gas and light oil from deep, high-pressure, high-temperature reservoirs.

National gas output averaged 1.95 bcf per day across the first ten months of 2025, hitting a monthly record of 2.07 bcf per day in May, with Ahmed Al-Eidan, KOC Chief Executive Officer, targeting 2.5 bcf per day by 2028-29 and roughly 4 bcf per day by 2040 as Mutriba, offshore fields and the shared Dorra reservoir ramp up.

All upstream activity remains governed by the state's sovereign ownership of hydrocarbon resources, with KOC engaging international service providers strictly on a contracted, technical basis rather than through equity participation in reserves.

PROJECT PEREGRINE RECYCLES PIPELINE

The sector's defining financial event arrived on July 24, 2026, when KOC signed a \$16 billion lease-and-leaseback agreement covering its entire domestic and export pipeline network with a consortium led collectively by Blackstone, Brookfield and KKR.

KPC described the transaction, named Project Peregrine, as the largest foreign direct investment in Kuwait's history.

Under the structure, a newly incorporated Kuwaiti joint venture leases usage rights to KOC's 13 pipelines, spanning approximately 320 km, before granting KOC exclusive operational and maintenance rights back for over a 20-year term in exchange for a volume-based tariff.

The three investment groups collectively hold a 49 per cent stake, with KOC retaining a controlling 51 per cent and full ownership of the physical infrastructure.

The arrangement imposes no restriction on Kuwait's refining throughput or production volumes, both of which remain the state's prerogative.

The deal is expected to generate \$7.85 billion in upfront proceeds upon closing, funds earmarked to support KPC's capital expenditure programme, including its target of 4 million bpd of crude production capacity by 2035.

The transaction mirrors comparable infrastructure monetisations already completed by Saudi Aramco, the Abu Dhabi National Oil Company (Adnoc) and Bahrain's Bapco Energies, reflecting a broader Gulf trend of unlocking capital from mature assets while preserving sovereign control over strategic networks.

AL-ZOUR ANCHORS A DOWNSTREAM PIVOT TOWARDS REFINED VALUE

On the downstream side, the Al-Zour refinery, lo-

cated 90 km south of Kuwait City, reached full operational status with output of 615,000 bpd, comprising roughly 86,000 bpd of premium naphtha, 99,000 bpd of jet fuel and 147,000 bpd of low-sulphur diesel.

The achievement lifted Kuwait's combined national refining capacity, including the Mina Abdullah and Mina Al-Ahmadi refineries, to approximately 1.415 million bpd, ranking Al-Zour seventh among the world's largest refineries by daily capacity.

The facility's advanced desulphurisation system achieves a 99.9 per cent recovery rate, and its hydro processing unit strips waxy materials to produce ultra-low-sulphur diesel meeting stringent European specifications.

Al-Zour also incorporates a hydro processing unit engineered to strip waxy compounds and yield ultra-low-sulphur diesel suited to strict European specifications, alongside six of the world's largest atmospheric distillation units, an artificial island for liquid product exports and a storage capacity of 6.5 million barrels of low-sulphur fuel to smooth seasonal and operational fluctuations.

Beyond fuels, KPC continues to pursue integration between Al-Zour's refining streams and the Petrochemical Industries Company.

A planned aromatics and polypropylene complex is expected to yield roughly 2.35 to 2.4 million tonnes annually, part of a wider effort under Strategy 2040 to shift the sector's revenue mix away from raw crude exports towards higher-margin refined products and petrochemical feedstocks.

The same complex is intended to supply around 1.55 million tonnes of gasoline annually to the domestic market.

Total investment envisaged under Strategy 2040 runs to approximately \$410 billion through 2040, encompassing expanded refining capacity, foreign acquisitions and the 4 million bpd production target.

DECARBONISATION TARGETS ADVANCE ALONGSIDE EXPANDING OUTPUT

Kuwait's energy transition agenda has continued to develop in parallel with its production ambitions.

KPC maintains a target of net-zero Scopes 1 and 2 emissions by 2050, feeding into Kuwait's broader national commitment to net-zero emissions by 2060, with the roadmap built around carbon capture, utilisation and storage, gas-flaring reduction and biofuels.

Renewable capacity remains modest in absolute terms but is expanding from a low base.

The Shagaya Renewable Energy Park combines a 50-megawatt (MW) concentrated solar plant, a 10-MW wind farm and a 10-MW photovoltaic installation.

A further 1.6 gigawatts (GW) is in pre-construction phase and 3.2 GW planned, against Kuwait's updated national target of a 30 per cent renewable share of energy generation by 2030 and 50 per cent by 2050.

Kuwait's approach combines this renewable build-out with continued reliance on liquefied natural gas imports, including a 15-year supply agreement with QatarEnergy for up to three million tonnes annually from January 2025, to meet domestic power demand while freeing associated gas and crude for export.

Executives at the KPC have characterised the strategy as a deliberate dual pursuit of expanded hydrocarbon output and lower carbon intensity, integrating carbon dioxide injection into oil reservoirs to enhance recovery while simultaneously reducing net emissions. ■

Kuwait 'quietly' charts new pipeline routes around the Hormuz chokepoint

As Hormuz tanker traffic remains disrupted by ongoing regional conflict, Kuwait is pursuing overseas storage deals and new cross-border pipeline links to secure oil exports



FOR decades, the global oil market rested on a quiet but load-bearing assumption: the Strait of Hormuz, for all its geopolitical fragility, would stay open.

That assumption broke in 2026, and no producer has felt the break more acutely than Kuwait.

Kuwait's economy is among the most oil-dependent on Earth.

Kuwait Petroleum Corporation (KPC) is not just the country's largest company, it is the backbone of government revenue and foreign-exchange generation.

Unlike Saudi Arabia, which can divert crude overland to the Red Sea via its East-West Pipeline, or the UAE, which can bypass the strait through its pipeline to Fujairah on the Gulf of Oman, Kuwait has no such overland escape valve.

Every barrel it sells abroad leaves by tanker through Hormuz. There is no plan B built into the map.

That structural vulnerability, long acknowledged in theory, was tested in practice after the Iran war erupted in late February 2026.

War-risk insurance premiums for the strait, which had sat near a token 0.05 per cent before the conflict, spiked more than a hundredfold, effectively pricing ordinary commercial shipping out of the waterway even on the days it was technically passable.

For Kuwait, the consequence was not gradual decline but overnight collapse.

Refining output and product exports were roughly halved as crude piled up with nowhere to go.

By April, ship-tracking services reported a stretch of zero crude exports, a level of disruption unseen since the aftermath of the Gulf War.

KPC repeatedly declared force majeure, citing its inability to move oil and refined products at all.

Production continued onshore, but with export routes severed, storage tanks filled and pressure built across the domestic system.

OPEN, CLOSED, OPEN AGAIN

The months since have offered little stability. A US-Iran memorandum in mid-June briefly reopened the strait and traffic rebounded, only for fresh strikes on vessels and renewed Iranian threats to shut it back down within weeks.

Insurance markets, mariners, and shippers have learned to treat "reopened" as a provisional, reversible status rather than a settled fact.

Meanwhile, attacks on Saudi tankers in the Red Sea have complicated even the traditional detour routes.

The upshot for Kuwait is a kind of prolonged uncertainty that is, in some ways, harder to plan around than a clean, total blockade would be.

LOOKING FOR A WAY AROUND

The crisis has turned what used to be a theoretical resilience exercise into an urgent operational priority. Several avenues are now being actively explored:

- **Overseas strategic storage:** Kuwait already holds modest crude reserves in South Korea and Japan as part of long-standing supply arrangements.

Expanding these buffers doesn't solve the export problem, but it cushions downstream customers and gives Kuwait more room to ride out a closure without deeper economic strain at home.

- **New pipeline links:** KPC officials have confirmed talks with neighbouring Gulf states about pipeline options that would let Kuwaiti crude reach terminals outside the Gulf entirely, following the model Saudi Arabia and the UAE already use.

Tying into or extending existing cross-peninsula in-

frastructure toward the Red Sea or the Gulf of Oman would, for the first time, give Kuwait an export path that doesn't depend on a 33-km-wide chokepoint shared with a wartime adversary.

- **Interim overland and short-haul options:** Truck and rail transfers to Saudi or Iraqi export terminals have been floated as stopgap measures; expensive and limited in volume, but capable of keeping some revenue flowing during acute closures.

- **Regional infrastructure cooperation:** More ambitiously, the crisis has revived discussion of a genuinely shared Gulf bypass corridor, pooled pipeline capacity and storage that could serve several producers, not just Kuwait, reducing the entire region's collective exposure to a single strait.

None of these are quick fixes. Pipelines take years to build and finance; storage deals only buy time; overland transfers can't match tanker volumes.

But the direction of travel is clear, and it marks a genuine shift in Gulf energy strategy; from treating Hormuz redundancy as a nice-to-have to treating it as existential infrastructure.

THE SILVER LINING

There is something quietly hopeful in how this crisis is unfolding. It has pushed Kuwait, and by extension its neighbours, toward the kind of diversification and regional cooperation that peacetime planning rarely delivers.

A country whose entire export identity has run through one waterway is now, out of necessity, building the connections that could insulate it, and the wider Gulf, from the next disruption, whatever form it takes. If there's a lesson for the global energy system, it's this: Resilience built in a crisis often outlasts the crisis itself. ■



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AEC reduces external dependencies to forge local technical mastery

Strategic joint ventures and knowledge transfer accelerate indigenous execution autonomy, transforming local workforce capabilities across complex energy markets, Ivan Chikunov tells *OGN*



AEC officials during a Boursa Kuwait bell-ringing ceremony

BY ABDULAZIZ KHATTAK

ACTION Energy Company (AEC) is dismantling external dependencies by leveraging strategic joint ventures designed to transition from collaborative partnerships into fully independent, indigenous execution.

By embedding international specialists directly alongside local personnel, the firm is systematically transferring proprietary technology and critical operational expertise directly into its workforce.

This deliberate capability-building framework ensures that engineering mastery, advanced troubleshooting techniques, and rigorous maintenance standards remain deeply anchored within local teams.

"Our engineers, supervisors, and field personnel work directly alongside international specialists on drilling and oilfield service projects, gaining hands-on exposure to advanced technologies, operating procedures, maintenance practices, troubleshooting techniques, and HSE standards," Ivan Chikunov, General Manager, Services & Business Development, Action Energy Company (AEC) tells *OGN* energy magazine in an exclusive interview.

This progressive localisation strategy empowers the enterprise to evolve from a specialist drilling contractor into a comprehensive, self-sustained full-life-cycle well solutions provider.

By systematically absorbing advanced international methodologies through structured knowledge-transfer components, the company secures absolute execution certainty for national oil companies while permanently strengthening its sovereign technical capabilities.

Below are excerpts from the interview:

How will the newly secured KWD 40.9 million (\$132 million) in local credit facilities accelerate AEC's near-term deployment pipeline?

The credit facilities provide funding for two new 750



Ivan Chikunov

HP rigs through a KWD7.3 million facility from Kuwait International Bank and four new 1,500 HP rigs and one 1,000 HP rig through a KWD33.6 million facility from Commercial Bank of Kuwait.

The facilities also strengthen AEC's financing structure and provide additional flexibility to support growth while maintaining a prudent balance sheet.

What structural supply chain strategies does AEC have in place to ensure that its pace of asset growth does not compromise operational efficiency or maintenance standards?

AEC's disciplined approach has enabled it to expand our fleet from four rigs in 2022 to 20 rigs today while maintaining 100 per cent fleet utilisation for four consecutive years and keeping non-productive time below 1 per cent.

This performance is underpinned by rigorous pre-

ventive maintenance and a disciplined operating model, supported by a diversified global supplier base and strong in-house maintenance capabilities.

Capital expenditure peaked during the heavy build phase in late 2024 and early 2025 before declining significantly as the rig-build programme concluded, marking a shift from expansionary spend to generating returns from the fully deployed fleet.

How is AEC upgrading its fleet to handle the technically demanding environments of Kuwait's oil fields?

AEC operates one of the youngest fleets in the wider region, with an average rig age of just 2.07 years against a market average of 15.9 years, spanning a horsepower range from 550 HP to 3,000 HP and a total installed capacity of 20,600 HP.

That breadth lets us match rig capability to well complexity across Kuwait's major producing areas, including South and East Kuwait, North Kuwait, West Kuwait, and the Ratqa, DMZ and UN region.

We operate rigs at 3,000 HP and above, the rig class we deployed under our nine year deep drilling contract with KCA Deutag, mobilised in 2020 and 2021.

The seven rigs under construction lift total installed capacity from 20,600 HP to 29,000 HP, and include four new 1,500 HP rigs and one 1,000 HP rig financed under our recent facilities.

This supports Kuwait's targets of crude production capacity of 4 million barrels per day (bpd) by 2035 and free gas production of 2 billion cu ft per day (bcf-pd) by 2040.

What specific local content advantages does AEC leverage to guarantee execution certainty for the national oil companies over international competitors?

KOC and Kuwait Gulf Oil Company (KGOC) account for approximately 94 per cent of our backlog, reflecting the depth and strength of this relationship.

We have secured 94 per cent of all drilling tenders

we have participated in, and maintained 100 per cent fleet utilisation for four consecutive years, compared with the Kuwait industry average of approximately 80 per cent and the GCC average of around 64 per cent.

A decisive advantage of our local operational footprint provides a natural buffer against regional disruption, and it reduces external dependencies and supports continuity of our upstream operations.

How is the company technically integrating its specialised oilfield services to offer a seamless, full well lifecycle workflow?

AEC's strategy is to evolve from a specialist drilling contractor into a full-cycle well solutions provider.

Today, drilling services account for approximately 62 per cent of our backlog, while oilfield services represent 38 per cent.

Our increasingly broad portfolio include electric submersible pumps, slickline, once through steam generators, tubular and mobile equipment inspection, directional drilling, wireline, cementing, coiled tubing, and workshop services.

This is achieved through a combination of in-house operations and strategic partnerships with leading international technology providers, including TRG, COSL, Vigorous, Kellton, SJ, Jiangsu, TAQA, Biotechina, CPVEN, NESR, Expert Optima, Kerui, Jereh, NaftoServ and Gilgamesh. These services deepen integration with our core drilling business.

A key element of this integration is our backward integration strategy, exemplified by our acquisition of a 60 per cent stake in Target NDT for inspection services in April 2025.

Over time our partnerships are structured to enable a gradual transition from JV based participation to independent execution, transferring knowledge and enhancing capability within our own workforce.

What is the strategic roadmap for scaling AEC's high-value production services?

Our oilfield services platform is the company's fastest growing segment service lines, representing 38 per cent of total backlog with average remaining contract durations of six to seven years.

Under our JV with CPVEN, AEC was awarded its first coiled tubing contract with KOC in 2016, which was renewed in 2020.

In 2025, we expanded across multiple service lines including electric submersible pumps, slickline, inspection, once through steam generators, cementing, directional drilling and coiled tubing.

How do AEC's joint ventures facilitate the transfer of proprietary technology and technical capabilities to your local workforce?

Our engineers, supervisors, and field personnel work directly alongside international specialists on drilling and oilfield service projects, gaining hands-on exposure to advanced technologies, operating procedures, maintenance practices, troubleshooting techniques, and HSE standards.

Several of our partnerships include dedicated knowledge-transfer and localisation components that enable AEC personnel to progressively assume greater operational and technical responsibilities.

How is digital transformation embedded into your daily field operations to improve upstream efficiency?

Most recently, we have taken a deliberate step further by forming a strategic joint venture with Kellton, a global AI-led digital transformation and enterprise technology company, marking AEC's first dedicated move into digitisation and AI.

A central focus is the regional deployment of OPTIMA, Kellton's proprietary digital oilfield platform, which is built for intelligent operations, workflow automation, asset performance optimisation, real-time visibility and AI-driven decision-making.

Through this partnership we aim to modernise field operations, sharpen decision-making and unlock greater value from our assets, laying the foundation for a long-term platform of AI-powered innovation across our operations and the wider GCC energy sector.

How has transitioning to a publicly-traded entity structurally enhanced the company's capital discipline and risk mitigation frameworks?

AEC's listing on the Premier Market of Borsa Kuwait

on December 17, 2025, has contributed to a stronger balance sheet, with our net debt-to-equity ratio declining from 1.45 times in 2024 to 0.55 times in 2025, while cash and short-term deposits increased to KWD28 million.

From a risk management perspective, the transition formalised an integrated governance framework aligned with the requirements of the Capital Markets Authority, including the establishment of dedicated Audit and Risk Committees, clearly defined oversight responsibilities, and enhanced transparency and accountability.

How is AEC evolving its HSE management systems to preserve its stringent zero-incident safety culture?

As AEC continues to expand its workforce to more than 1,700 employees, preserving our zero-incident safety culture remains a non-negotiable priority.

From a governance perspective, we maintain structured oversight through our Audit and Risk Committee and independent compliance functions, supported by leading external specialists including Protiviti for risk management, external specialists for technical internal audits, and BDO for internal control reviews.

Equally important is our commitment to workforce competency.

Employees complete mandatory safety programmes covering H2S safety, defensive driving, emergency response, working-at-heights protection, and specialised operational workshops.

The effectiveness of this approach is reflected in our industry-leading LTIR of 0.01, approximately 96 per cent below the global onshore average, and in the recognition we have received from KOC, including consecutive 7-year and 8-year Lost Time Incident-Free citations and Best Performing Rig awards.

Supported by our ISO 45001, ISO 14001, and ISO 9001 certifications, these measures ensure that our stringent safety standards remain fully intact throughout our continued expansion. ■

This is an edited version. For the unabridged interview, visit www.ognnews.com



An AEC rig ... the company has 20 active rigs today up from 4 in 2022

Alfa Laval drives energy resilience through efficient technologies

Through R&D, retrofit technologies and local partnerships, the company is helping Kuwait's mature energy sector become efficient, resilient and accelerate viable energy transition, Cedric Domont tells **OGN**

BY ABDULAZIZ KHATTAK

ALFALaval is leveraging its global research and development to modernise Kuwait's mature energy infrastructure through high-efficiency thermal recovery and separation technologies.

Rather than replacing world-class existing assets, the company is deploying retrofit-ready solutions designed specifically for brownfield environments, enabling national operators to enhance process performance, extend equipment lifecycle, and achieve measurable emissions reductions with minimal operational disruption.

Thermal management innovations are proving pivotal in supporting regional net-zero targets and alleviating grid strain during peak summer cooling seasons.

In refinery applications, the wider adoption of Alfa Laval's high-efficiency plate heat exchangers offers potential energy consumption reductions of up to 23 per cent, while its global installed base already reduces customer capacity needs by approximately 100 GW annually through optimized heat transfer.

In an exclusive interview with **OGN** energy magazine, Cedric Domont, President of Alfa Laval Middle East, South and East Africa says: "The organisations that will lead the next phase of industrial growth are those that integrate efficiency, resilience and sustainability into every stage of their operations, not as separate priorities, but as a single business strategy."

Below are excerpts from the interview:

How is Alfa Laval leveraging its global R&D investment to modernise Kuwait's mature oil and gas infrastructure?

Kuwait's energy sector has built world-class assets over decades. The next phase of competitiveness is not about replacing these facilities; it is about making them smarter, more efficient, and more resilient.

Alfa Laval invests SEK1.656 billion (\$171 million) annually in research and development, equivalent to 2.5 per cent of its net sales, with innovation driven from approximately 20 R&D facilities worldwide.

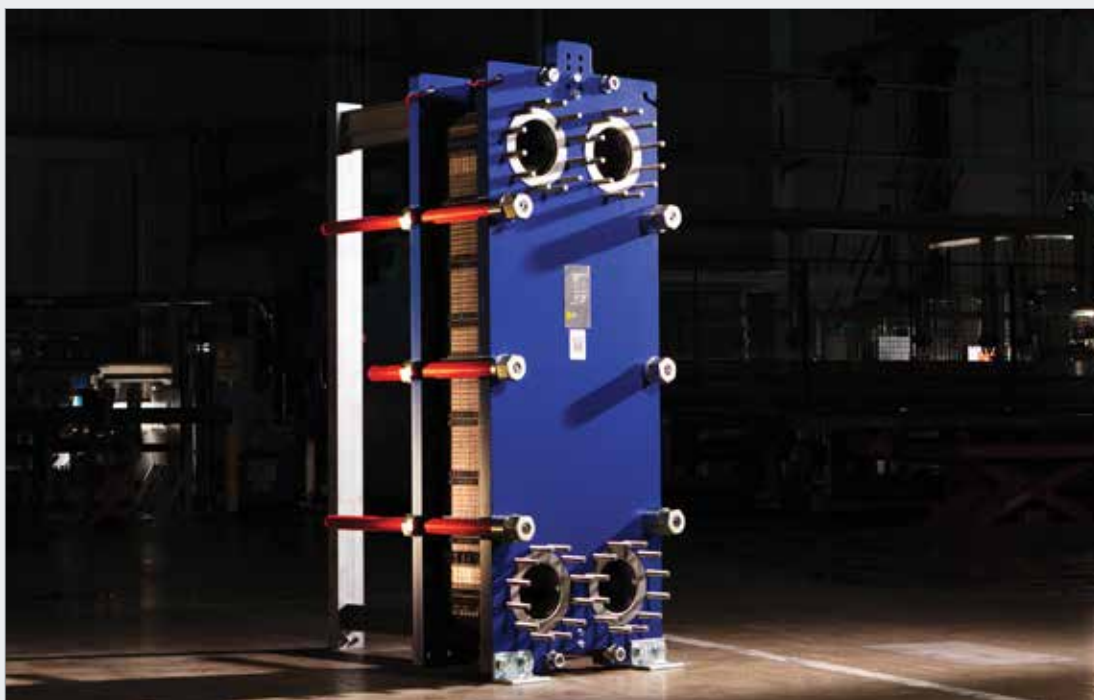
This sustained investment is focused on advancing heat transfer, separation and fluid handling technologies that help customers improve energy efficiency, extend asset life, and optimise process performance.

Much of this innovation is specifically designed for brownfield environments, where operators need measurable improvements without major plant modifications.

Our retrofit-ready technologies, including high-efficiency heat exchangers, advanced separation systems and digital service solutions, can often be integrated into existing process lines with minimal disruption, helping recover more energy, reduce maintenance requirements and improve process stability.

What quantifiable role can Alfa Laval's high-efficiency thermal recovery and separation technologies play in reducing industrial carbon intensity?

Thermal processes account for a significant share of industrial energy consumption.



Alfa Laval heat exchangers deliver high thermal performance in a compact footprint optimising energy use, reducing operational costs, and supporting reliable, sustainable processes across industries



Cedric Domont

In refinery applications specifically, Alfa Laval's assessments indicate that the wider adoption of high-efficiency plate heat exchangers could reduce energy consumption by up to 23 per cent.

Today, Alfa Laval's global installed base of heat exchangers reduces customers' capacity needs by approximately 100 GW every year through more efficient heat transfer and servicing.

As Kuwait pursues ambitious net-zero targets, improving the efficiency of existing assets is one of the fastest and most cost-effective pathways to reducing industrial emissions.

Given that Nouri Group is your advanced authorised partner in Kuwait, how does this elite, local-

ised relationship insulate your local clients from volatile global supply chain disruptions?

As one of only 26 Advanced Authorised Partners worldwide, Nouri Group has direct access to Alfa Laval's engineering expertise, technical training, digital tools and product knowledge.

For local customers, this translates into faster response times, local technical support, improved spare parts availability, and shorter lead times for maintenance activities.

In industries, where every hour of downtime carries significant financial implications, having highly qualified expertise available locally becomes a critical competitive advantage.

How do Alfa Laval's clean-tech innovations support the Ministry of Electricity and Water's efforts to curb domestic energy demand during peak summer seasons?

Cooling accounts for a significant share of electricity demand across the GCC, and accelerated urbanisation, expanded industrial activity, and emerging data centres have significantly increased cooling requirements.

The challenge is optimising thermal management to deliver greater efficiency with fewer resources.

Alfa Laval's heat exchangers, district cooling solutions and advanced thermal management technologies enable utilities and industries to transfer more heat using less energy, helping optimise electricity consumption without compromising performance.

Maintaining stable operating temperatures protects critical equipment, improves process stability, and minimises the risk of costly downtime during periods of extreme heat.

This is particularly important for sectors such as refining, petrochemicals, food processing, and the rapidly growing data centre industry.

How is your local service footprint structured to guarantee fast-response maintenance and life-cycle support for critical infrastructure?

Alfa Laval has strengthened its service footprint in Kuwait, and across the wider Middle East and Africa, through service centres, highly trained field service engineers, digital diagnostics and authorised service partners.

We complement our on-site capabilities with Alfa Laval Remote Guidance, which connects customers directly with our technical experts through a secure augmented reality platform.

Predictive maintenance, condition monitoring, remote guidance and lifecycle services enable operators to plan interventions proactively rather than responding to unexpected failures, improving reliability while reducing operational risk.

How does Alfa Laval plan to translate global investment confidence into technology transfer, local training, and green hydrogen deployment in Kuwait?

Our CEO, Tom Erixon's recent visit, reinforced the strategic importance of the Middle East as one of the world's most dynamic regions for industrial growth and the energy transition.

Alongside delivering advanced technologies, we continue to invest in technical capability through customer training, engineering collaboration and knowledge sharing with local partners.

Green hydrogen is one area where Alfa Laval is already contributing through technologies that support electrolysis, heat recovery, cooling, separation, and process optimisation across the hydrogen value chain.

As these projects continue to mature across the region, building local engineering expertise will be just as important as deploying new technologies.

What specific technical benchmarks must your

technologies meet to convince national oil companies to accelerate the adoption of brownfield energy-efficiency solutions?

Customers typically evaluate technologies against several key criteria: Energy savings, operational reliability, lifecycle economics, safety, ease of integration into existing assets, long-term value creation; and the ability to demonstrate proven performance under comparable operating conditions.

Alfa Laval's regional Energy Efficiency Hub works closely with customers to identify energy-saving opportunities, evaluate process performance and provide expert technical consultation on how existing process can be optimised.

The objective is not simply to introduce new equipment, but to help customers improve energy efficiency, maximise production availability and reduce lifecycle costs while supporting increasingly ambitious sustainability targets.

How have your compact heat exchangers been engineered to maintain strict thermal efficiency and prevent unscheduled industrial downtime?

Alfa Laval's compact heat exchangers are designed to deliver high thermal efficiency within a significantly smaller footprint while maintaining performance under challenging operating conditions, including high ambient temperatures and variable process loads.

Advanced plate designs maximise heat transfer while reducing fouling, which helps maintain efficiency over longer operating periods and lowers maintenance requirements.

How is Alfa Laval deploying its specialised liquid and district cooling solutions to address the immense power and thermal constraints of data centres?

As computing densities increase, thermal management is becoming just as critical as power availability.

Higher rack densities and AI-driven workloads are creating new requirements that increasing-

ly call for more advanced thermal management solutions.

Through our expertise in heat transfer, we support customers with high-efficiency heat exchangers, liquid cooling technologies and district cooling solutions that help reduce energy consumption, improve cooling efficiency and maintain thermal stability, while maximising uptime for mission-critical operations.

Equally important is designing solutions that align with local sustainability priorities.

Depending on the application, this can include technologies that minimise water consumption, enable the use of natural cooling sources where feasible and optimise overall cooling performance without compromising reliability.

What benchmarks has Alfa Laval established to demonstrate the rapid payback period and commercial viability of its latest decarbonisation technologies?

The economics of sustainability have changed significantly.

The technologies that gain the fastest adoption are those that simultaneously reduce energy consumption, improve operational performance, and lower total cost of ownership.

In refinery applications, Alfa Laval's own assessments indicate that the wider adoption of high-efficiency plate heat exchangers could reduce energy consumption by up to 23 per cent, strengthening the business case for decarbonisation by lowering operating costs while reducing carbon intensity.

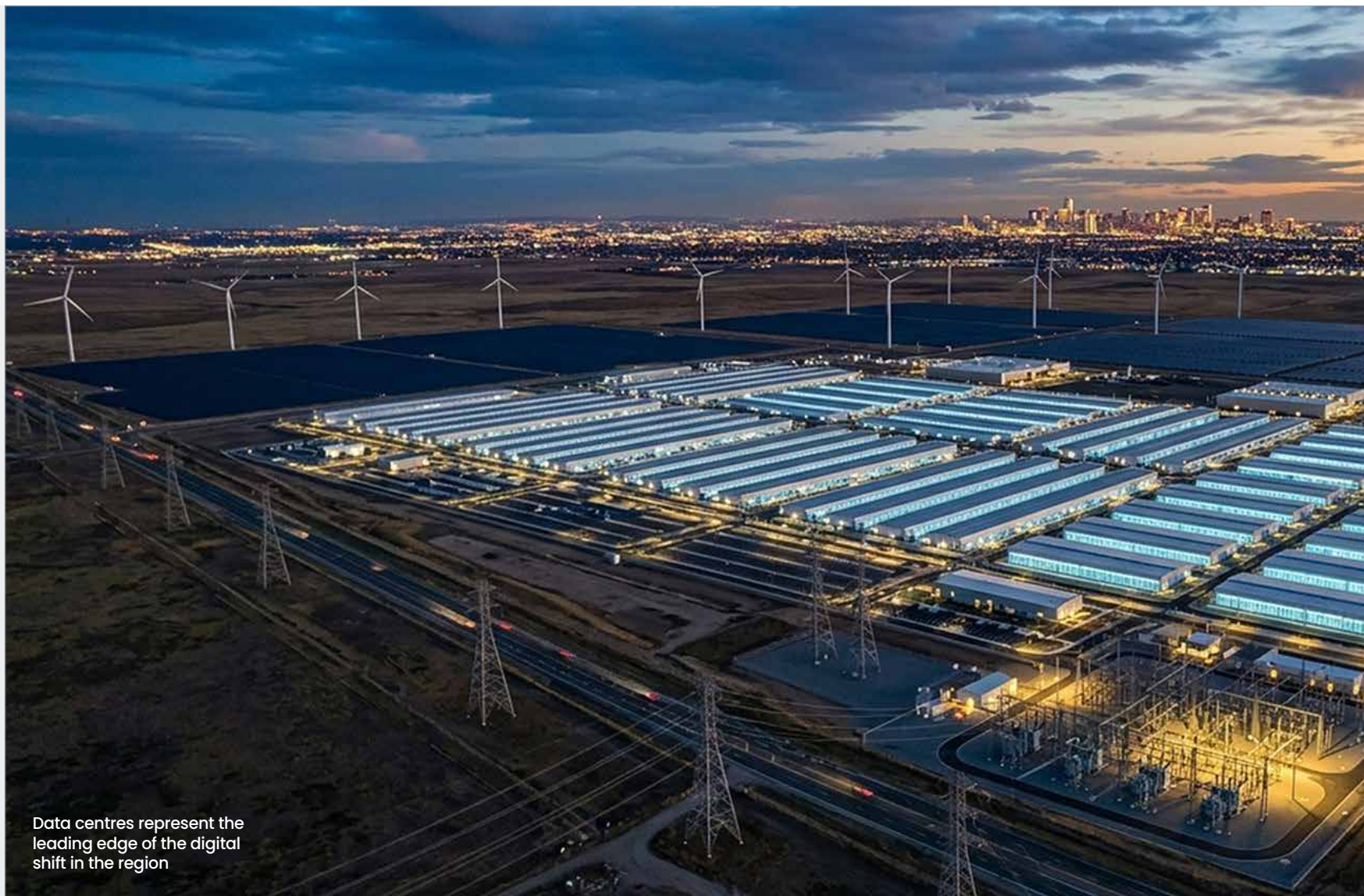
Across the Middle East and Africa, we see strong momentum towards practical, commercially viable decarbonisation.

The organisations that will lead the next phase of industrial growth are those that integrate efficiency, resilience and sustainability into every stage of their operations, not as separate priorities, but as a single business strategy. ■

This is an edited version. For the unabridged interview, visit www.ognnews.com



Alfa Laval offers remote service assistance



Data centres represent the leading edge of the digital shift in the region

Mideast infrastructure transformation gets boosts on surging energy demand

Regional consensus demonstrates how rapid digital integration, AI and modernised power grids are overcoming systemic bottlenecks across core industrial infrastructure operations

ACROSS the Middle East, the transformation of infrastructure operating models between 2020 and 2050 is unfolding at scale, driven by expanding industrial capacity, urban population growth and severe climate pressures.

Electricity demand across the Middle East and North Africa has tripled since 2000 and is projected to rise by another 50 per cent by 2035 under current policy settings, with roughly 40 per cent of that growth generated by cooling and water desalination requirements alone.

Rather than choosing between economic growth and decarbonisation, regional leadership is pursuing both objectives concurrently, navigating severe operational heat, water stress and complex security environments.

This dual mandate demands unprecedented capital alignment, structural resilience and coordinated execution across energy, industrial and built environment sectors.

Drawing on a survey of 400 executives across the UAE, Saudi Arabia, Egypt, Qatar and Oman, complemented by expert interviews, the inaugural Siemens Infrastructure Transition Monitor re-

port highlights a region defined by high ambition and distinct momentum.

Exactly 66 per cent of Middle East executives assert that the global energy transition must accelerate significantly, compared to 57 per cent globally.

Furthermore, 65 per cent of regional respondents report close collaboration between business and government on energy policy, exceeding the 59 per cent recorded outside the region.

Despite this momentum, regional executives maintain a measured assessment of current maturity, with an average of 40 per cent describing progress across 14 infrastructure transition goals as mature or advanced, compared with 50 per cent globally.

Rather than indicating institutional delay, this score demonstrates that high regional ambitions continually elevate performance benchmarks across electricity network expansion, national energy independence, large-scale energy storage deployment, systematic transmission expansion and core heavy industry decarbonisation and operational efficiency.

DEPLOYMENT OF AI & DIGITAL INFRASTRUCTURE ASSETS

To support strategic scaling, capital investment intentions across the region are heavily weighted toward digital technology adoption and operational decarbonisation.

Operational decarbonisation ranks as the primary priority for regional organisations over the next three years, contrasting with its seventh-place ranking globally.

Improving facility energy efficiency ranks second, while on-site renewable energy production or storage ranks third.

Furthermore, 70 per cent of regional entities maintain explicit targets for Scopes 1 and 2 direct and indirect emissions from controlled sources, whereas global target adoption stands at 58 per cent, while Scope 3 emissions targets cover 14 per cent of regional organisations.

Consequently, 62 per cent of regional enterprises are increasing investments in digital technologies, 61 per cent are accelerating decarbonisation efforts and 60 per cent are expanding investments in renewable energy, energy efficiency and



facility electrification.

Some 68 per cent have identified digitalisation as critical.

Advanced data analytics and artificial intelligence (AI) applications form the core driver for these technological investments.

Across regional industries, 62 per cent of executives expect AI to transform operational models within three years, while 61 per cent use artificial intelligence to enhance critical infrastructure resilience.

When evaluating technologies expected to drive decarbonisation, AI solutions lead all categories: AI data analysis ranks highest at 38 per cent, followed by predictive analytics at 33 per cent and autonomous systems at 30 per cent.

Additional impactful solutions include digital twins and advanced simulation at 29 per cent, cloud computing at 29 per cent, virtual and augmented reality at 27 per cent, smart edge devices at 27 per cent, remote sensing and geospatial tools at 25 per cent, digital business platforms at 22 per cent and intelligent automation at 19 per cent.

Furthermore, 68 per cent of regional executives describe digitalisation as a critical transition enabler overall.

Data centres represent the leading edge of this digital shift, operating approximately five years ahead of standard commercial buildings on the innovation curve.

Facility design is evolving toward integrated artificial intelligence factories where micro-chip-to-grid optimisation defines operational competitiveness.

Machine learning (ML) models now assimilate historical operational and maintenance records

from building and energy management systems, replacing fragmented human consensus with automated recommendation engines.

This algorithmic approach yields substantial improvements in decision speed, auditability and operational efficiency, where advancing efficiency from 94 per cent to 97 per cent generates substantial performance gains across continuous multi-facility operations.

Similar digital frameworks are expanding across commercial real estate, enabling developers to integrate energy, cooling and customer traffic data to anticipate maintenance requirements, prevent operational outages and optimise energy usage.

Data integration remains essential for these advanced analytical engines, although legacy infrastructure and sub-processes built over time across spreadsheets and manual platforms create adoption friction.

Consequently, 69 per cent of regional organisations state that smarter technologies are required for rapid data integration, while an identical 69 per cent plan increased investments in data integration technologies.

Concurrently, interest in autonomous systems is expanding, with 56 per cent of regional entities prepared to implement autonomous building technology and 57 per cent planning significant investments in autonomous capabilities over the coming year.

However, critical infrastructure deployments maintain human-in-the-loop oversight for high-level operational decisions, balancing automated efficiency with essential cybersecurity, regulatory compliance, risk oversight and continuous system auditability across regional industrial and commercial built assets.

GRID MODERNISATION, INTERCONNECTION & DEMAND-SIDE INTEGRATION

As electrification expands across transport, cooling and industrial operations, electricity networks have become the central constraint governing regional growth.

Power grid limitations are identified by regional respondents as the factor most likely to slow the clean energy transition, with 62 per cent stating that electrification is held back by inadequate grid infrastructure.

Electricity networks can no longer operate as static supply channels; they require real-time visibility, digital control and dynamic demand management.

Smart grid software and grid-edge digital technologies are recognised by 64 per cent of executives as crucial transition enablers, reflecting a movement toward managing power, gas, transport and hydrogen as a unified, coordinated system to support rising demand across expanding industrial corridors and urban centres regionally.

Major utilities are directing substantial capital toward converting traditional networks into intelligent digital platforms.

In Dubai, the local electricity and water authority is deploying an AED7 billion (\$1.9 billion) smart grid programme through 2035 to modernise grid infrastructure.

Its distribution network smart centre ingests and analyses over 15 million data units daily, using AI and ML to provide diagnostic services, anticipate network issues and support automated operational decisions.

These digital grid capabilities allow utility operators to transition from reactive maintenance to predictive asset management, improving overall network reliability and ensuring grid stability as variable renewable energy sources and heavy in-

dustrial loads connect to distribution.

Parallel to grid upgrades, the relationship between utilities and major power consumers is becoming more collaborative.

Exactly 70 per cent of regional executives agree that increased data sharing between producers and consumers would significantly improve energy system efficiency, while 70 per cent plan to use organisational assets to profit from demand-side flexibility mechanisms.

Large consumers, including hyperscale data centres, ports and industrial clusters, are actively taking direct stakes in energy delivery value chains and behind-the-meter storage assets.

Rather than waiting passively for utility power allocation, major power users are sharing demand forecasts, phasing capacity requirements and participating in demand-response schemes to secure immediate energy access and support system stability.

Cross-border grid connections are expanding to enhance regional energy security and enable cross-border power trading.

The Gulf Cooperation Council Interconnection Authority has linked the 400-kV electricity networks of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE since 2009 across seven substations, using a back-to-back HVDC converter station to connect the 50 Hz regional grid with Saudi Arabia's 60 Hz system.

Building upon this inter-state model, a 3-GW electricity interconnector between Saudi Arabia and Egypt entered final testing in early 2026, spanning 1,350 km including Red Sea submarine cables.

This link establishes a major power corridor connecting the Middle East, North Africa and Europe, complemented by Egypt's existing electricity exports.

STRATEGIC MODULARITY, OPERATIONAL SECURITY & FUTURE RESILIENCE

Beyond decarbonisation, infrastructure design is driven by extreme resilience imperatives. Regional operators manage severe heat, water scarcity, population growth and geopolitical security risks.

In response, asset architecture is shifting away from centralised facilities toward modular, decentralised and geographically dispersed assets.

Strategic dispersion enhances physical security while easing localised grid congestion and reducing single-point operational vulnerabilities.

Integrating structural redundancy alongside microgrids ensures that critical industrial operations, water treatment facilities and urban developments maintain continuous functionality during wider power system disruptions, ensuring operational continuity across complex environmental conditions and evolving regional security environments operating parameters.

Agile digital infrastructure provides the foundation required to maintain business continuity during operational disruptions.

Pre-existing digital integration, unified data platforms and remote systems allow real estate developers and infrastructure managers to execute real-time adjustments, maintaining uninterrupted community services and operational output throughout external shocks.

This agility demonstrates that digital transformation functions as a direct driver of institutional stability and risk management, rather than merely carbon tracking.

Regional competitiveness will depend on deploying connected digital intelligence, executing public-private coordination and building resilience directly into physical and digital infrastructure architectures systemwide. ■

More than just a maintenance problem, asset integrity is a process safety issue, reliability issue and a business issue all at once



Credit: Michael Pointner

How to make aging assets stay profitable and safe through smarter decisions

Successful companies treat integrity as a strategic discipline, revamps as value-creation opportunities, sustainability as asset stewardship, and digital tools as enablers of better decisions, Anupam Sharma tells OGN

AGING process facilities are one of the oil and gas industry's most persistent challenges, and one of its greatest opportunities.

Across refineries, gas plants, petrochemical complexes and other high-hazard operations, many critical assets are now well beyond their original design life.

Some are still producing efficiently, while others are limping along under a growing burden of wear, degradation and operational workarounds.

The difference between the two is usually not age itself, but how the asset is managed.

For operators, the question is no longer whether assets are aging; that is a given.

The real question is whether the organisation is managing those assets in a way that keeps them safe, reliable and economically viable.

In many cases, the answer lies in moving away from reactive maintenance and toward a disciplined, engineering-led lifecycle strategy.

That means using inspection data, operating history, risk analysis and business priorities to decide when to maintain, repair, revamp, derate or retire equipment.

This shift matters because aging assets do not fail in a neat, predictable pattern.

They deteriorate in different ways, including corrosion in pressure systems, fatigue in rotating or



Anupam Sharma

cyclic equipment, fouling in exchangers, drift in instrumentation, seal wear in pumps, and gradual structural weakening in supports and pipe racks.

These issues may appear minor at first, but over time they can create recurring production losses, unplanned shutdowns and, more importantly,

process safety exposure.

INTEGRITY IS MORE THAN MAINTENANCE

A common mistake is to treat asset integrity as a maintenance problem alone.

In reality, it is a process safety issue, reliability issue and a business issue all at once.

When a plant begins to experience repeated leaks, chronic equipment failures or repeated operating excursions, the problem is rarely just "bad equipment".

It is usually a signal that the organisation needs to look deeper at the asset's condition, design limits, operating envelope and maintenance philosophy.

That is why engineering-led integrity management is so important.

It begins with factual questions: What is the actual condition of the asset? What degradation mechanisms are active? What failures are recurring? What is the consequence if nothing changes?

From there, a plant can prioritise interventions based on risk rather than habit.

Some items may only need monitoring, others may need repairs, while a few may need a full revamp or replacement.

This is also where the best plants differentiate

themselves.

They do not wait for failure to force a decision, they use inspection findings, reliability trends and risk rankings to get ahead of the problem.

That approach reduces the likelihood of serious incidents and also makes better use of capital.

RELIABILITY & PROCESS SAFETY GO TOGETHER

In older facilities, reliability improvement and process safety improvement are often the same thing viewed from different angles.

Equipment that frequently trips, leaks or underperforms is not only costly; it can also push operators into abnormal conditions, bypasses and temporary fixes.

Those shortcuts may keep production moving in the short term, but they often increase long-term risk.

For this reason, the highest-value reliability work is usually focused on the assets and systems that matter most: Critical rotating equipment, utilities, control and safety instrumentation, relief systems, transfer lines, and process structures that support plant operation.

These are the items where small improvements can create large benefits in uptime, safety and maintenance effort.

A mature integrity programme should, therefore, not be built around generic maintenance routines; it should be built around criticality.

Which assets can hurt the business if they fail? Which ones can create a safety event? Which failures are becoming more frequent?

Once these questions are answered honestly, priorities become much clearer.

OPERATIONAL DISRUPTIONS & RESTART RISK

Unplanned interruptions, whether caused by geopolitical events, equipment damage, supply-chain disruption or other external shocks, can create additional stress on aging facilities.

When a plant is partially shut down, idled or forced into an altered operating mode, the asset may experience thermal cycling, pressure transients, corrosion exposure, contamination, deferred maintenance accumulation and changes in turnaround timing.

Restarting under these conditions should, therefore, be treated as a lifecycle integrity challenge, not simply as a procedural step.

For aging facilities, the greatest risk is often not the interruption itself but the way the restart is managed.

A disciplined pre-startup review should confirm the current condition of equipment, identify any outstanding maintenance or inspection items, verify safety system functionality, and ensure that the restart plan reflects the actual state of the plant rather than the original assumptions.

Plants that treat restart as a formal engineering and operational decision are better positioned to avoid latent failures, reduce unplanned downtime and protect the value of the asset during and after disruption.

REVAMPS SHOULD CREATE VALUE, NOT JUST COST

Although in many organisations, "revamp" still sounds like a capital project word, it should be seen as a strategic tool for value creation in aging facilities.

A well-designed revamp can reduce bottlenecks, simplify operation, improve maintainability and lower the frequency of off spec or unstable conditions.

The same is true of debottlenecking, which is often discussed as a capacity exercise, but in practice it can also be a safety and reliability exercise.

Hidden bottlenecks force plants to operate in stretched or unstable modes, and operators may compensate manually, push equipment harder or accept repeated interruptions.

Removing those constraints can improve throughput while also making the process safer and easier to run.

SUSTAINABILITY STARTS WITH USING ASSETS WELL

Sustainable asset management is often discussed in terms of emissions, energy efficiency and carbon intensity.

And although these are important topics, however, sustainability in aging process facilities also has a more practical meaning: Using existing assets wisely, avoiding waste, and extending useful life in a safe and economically rational way.

A plant that repeatedly repairs the same defect is not being sustainable, and neither is a plant that replaces equipment too early because it has no clear lifecycle strategy.

Sustainable asset management means choosing the right intervention at the right time.

It means keeping assets in service longer when that is safe and sensible, and revamping or retiring them when that is not.

For many operators, this is where asset integrity and sustainability meet.

The same disciplined practices that improve safety and reliability also support more sustainable operations.

If the plant can make better decisions on maintenance, repair and life extension, it is likely to use fewer resources over the asset lifecycle.

LEADERSHIP MAKES THE DIFFERENCE

No integrity programme succeeds without strong leadership commitment, particularly when ageing assets demand sustained investment and disciplined decision-making.

Ageing facilities are expensive to manage, making it tempting to defer essential work, although delaying intervention almost always increases operational risk and long-term costs.

Effective organisations align operations, maintenance, inspection, engineering and project ex-

ecution around a shared understanding of asset condition, reliability and risk.

Such cross-functional coordination is vital because no single function possesses the complete operational, technical and commercial perspective needed for sound decisions.

The challenge is integrating these diverse perspectives early enough to maximise safety, reliability and long-term asset value.

THE BIGGER LESSON

The biggest misconception about aging assets is that they are a burden to be tolerated.

In reality, many mature facilities still contain substantial value, if they are managed well.

They often have extensive operating history, well-understood failure modes and equipment that, while old, can still perform reliably with the right attention.

That is why the conversation should not be about age alone.

It should be about condition, risk and lifecycle strategy.

Plants that make that shift are in a better position to remain safe, reliable and profitable.

They are also better positioned to support sustainability goals by using existing infrastructure more effectively.

Aging assets will remain a defining issue for the industry for years to come.

The companies that succeed will be those that treat integrity as a strategic discipline, revamps as value-creation opportunities, sustainability as part of asset stewardship, and digital tools as enablers of better decisions.

In a sector where performance, safety and economics are tightly linked, that is not just good practice; it is a competitive advantage. ■

** Anupam Avinash Sharma is a senior industrial and business development consultant with more than 25 years of experience in the Middle East across energy, chemicals, mining and utilities. His interests include process safety, operational integrity, reliability improvement and lifecycle optimisation of aging assets. He is based in Khobar, Saudi Arabia.*



If managed well, mature facilities could still contain substantial value

Credit: Tom Fisk

GE Vernova technology centre committed to boosting skills, innovation in Kuwait

GE Vernova's Kuwait Technology Center has affirmed its commitment to technological innovation and fostering knowledge transfer to drive forward the ambitious goals of Kuwait's Vision 2035.

Established in 2015, the 6,000-sq-m facility was conceived to support the energy transition through specialised training, engineering and tooling capabilities.

Managed and operated by Kuwaiti professionals, it was GE Vernova's first technology centre of its kind outside the US.

Late last year, the centre marked its milestone 10-year anniversary.

Over the past decade, the centre has trained more than 1,500 engineers from Kuwait and around the world, equipping professionals with specialist expertise for the power generation industry.

The institute's Engineering Centre provides advanced technology services tailored to Kuwait's energy sector and is the only GE Vernova facility globally with advanced controls simulation capabilities that can accurately replicate complex turbine control events. It also houses Kuwait's only gas turbine materials laboratory.

The Tooling Centre supports regional and global demand by supplying equipment used to service gas and steam turbines and generators, helping localise critical maintenance services.

Dr Subaih Abdulaziz Abdul Muhsen Al Mukhaizeem, Kuwait's Minister of Electricity, Water and Renewable Energy, says: "Kuwait's long-term development priorities, envisioned under the Kuwait National Development Plan, rely on a deep integra-



Sheikh Ahmad Al-Sabah, Kuwait's Prime Minister, (left) with Joseph Anis at the centre's 10th anniversary celebration

tion of academia, research, and industry to transform the nation into a diversified, sustainable, and knowledge-driven economy."

Beyond its technical operations, the centre supports education and workforce development through university partnerships, internship programmes, student site visits and engineering competitions designed to encourage greater interest in science, technology, engineering and mathematics (STEM).

On this part, Joseph Anis, President and CEO of GE

Vernova's Gas Power business in Europe, Middle East & Africa, said: "GE Vernova has been honoured to support the development of Kuwait's power sector for over 50 years. It underscores our unwavering dedication to fostering localised innovation and developing the high-value expertise essential to support Kuwait's energy transition journey. With its capabilities and talented local leadership, the team at the facility is contributing to establish the country as a regional and global hub for advanced energy solutions." ■

KOC leases 320km pipeline network for \$16bn

KUWAIT Oil Company (KOC), responsible for the exploration, production and transportation of crude oil in Kuwait, has signed a \$16 billion lease-and-lease-back agreement involving its entire domestic and export pipeline network with a consortium of international infrastructure and institutional investors led collectively by Blackstone, Brookfield and KKR.

KOC is a wholly-owned subsidiary of Kuwait Petroleum Corporation (KPC), the state-owned corporation overseeing Kuwait's oil and gas sector.

As part of the transaction, a newly formed Kuwaiti-incorporated new joint venture (JV) will lease from KOC the usage rights to all of its 13 pipelines, spanning a total of approximately 320 km of Kuwait's pipeline network.

Under the terms of the agreement, the JV will grant back to KOC the exclusive use, operational and maintenance rights in the pipeline assets for over a 20-year period, in exchange for a volume-based tariff.

KOC and the consortium, comprising Blackstone, Brookfield and KKR, will establish the new JV, with KOC holding a 51 per cent majority stake and the consortium collectively holding the remaining 49 per cent, with equal stakes and on equal terms.

KOC will continue to maintain full ownership and operational control of the pipeline network.

The JV will not impose any restrictions on Kuwait's refining throughput or production volumes, all of



KOC will lease the usage rights to all of its 13 pipelines to the new JV

which remain subject to decisions made by the State of Kuwait.

The JV is expected to generate upfront proceeds of \$7.85 billion for KOC upon closing, supporting KPC's capital expenditure plans, including KPC's target of 4 million barrels per day (bpd) of crude oil production capacity by 2035, and supporting Kuwait's broader efforts to diversify sources of capital and deepen engagement with global investors.

The commitment represents the largest foreign direct investment in Kuwait's history.

Its scale reflects the quality of KOC's asset base, the strength of KPC's operational stewardship, and the enduring appeal of Kuwait as an investment destination.

The agreement ranks among the first major inward investments in the Arabian Gulf region since the onset of recent tensions, and it bears testament to Kuwait's resilience and agility, and the sustained confidence of global institutional investors in Kuwait and KPC.

Beyond its immediate proceeds, the JV is intended to serve as a catalyst for deeper participation by global investors in the national economy, in keeping with KPC's development plan and Kuwait's long-term diversification agenda.

Commenting on the development, Shaikh Nawaf Saud Al-Sabah, Deputy Chairman and CEO of KPC, said: "Project Peregrine represents the largest foreign direct investment in Kuwait's history and a defining milestone for our country's economic development. It delivers on the commitment announced by the Prime Minister, Shaikh Ahmad Abdullah Al-Ahmad Al-Sabah, at the Kuwait Oil and Gas Show (KOGS) in February 2026 to attract world-class international investors into Kuwait's strategic infrastructure while preserving full national ownership and operational control.

Joe Bae and Scott Nuttall, Co-CEOs of KKR, said: "This investment reflects our confidence in Kuwait and our commitment to providing long-term capital in support of strategic infrastructure, and we look forward to deepening our partnership and identifying further opportunities to invest alongside Kuwait in the years ahead." ■