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UAE QUITS OPEC IN BIG BLOW TO GROUP

The UAE said it would continue to act responsibly by bringing additional production to market

THE UAE will exit the Organisation of the Petroleum Exporting Countries (Opec) and Opec+ effective May 1, 2026, ending nearly six decades of membership in a move framed as driven by national economic priorities, according to a report by Emirati news agency *WAM*.

The decision appears rooted in financial considerations, with the UAE saying it is shifting focus towards what best serves national interests and its commitments to investors, customers, partners and global energy markets.

"This is a policy decision, it has been done after a careful look at current and future policies related to level of pproduction," Suhail Mohamed Al Mazrouei, UAE Energy Minister, told *Reuters*.

Despite the departure, the UAE said it would continue to act responsibly by bringing additional production to market in a gradual and measured manner, aligned with demand and prevailing market conditions.

It stressed the move does not alter its commitment to global market stability or its cooperative approach with producers and consumers, but rather strengthens its ability to respond to evolving market needs.

Suhail Mohamed Al Mazrouei

The announcement comes amid continued near-term volatility, including supply disruptions linked to the Arabian Gulf and the Strait of Hormuz, although the report said longer-term trends continue to point to sustained growth in global energy demand.

The UAE said a stable global energy system depends on flexible, reliable and affordable supply, adding that it has invested to meet changing demand efficiently and responsibly while prioritising stability, affordability and sustainability.

The country joined Opec in 1967 through the Emirate of Abu Dhabi and retained membership following the formation of the UAE in 1971.

Over the years, it has played a prominent role in supporting oil market stability and fostering dialogue among producing nations.

The UAE, which produces some of the world's most cost-competitive and lower-carbon barrels, said it will continue investing across the energy value chain, spanning oil, gas, renewables and low-carbon solutions, to support resilience and long-term energy system transformation.

One of the world's top oil producers, the UAE currently produces around 3.5 million barrels per day (bpd) of crude oil, with installed capacity estimated at about 4 million bpd, and ambitious plans to raise this to 5 million bpd by 2027.

Exports account for the bulk of its production, with roughly 2.5–3 million bpd shipped to international markets, primarily in Asia.

As a key Opec member with one of the group's largest spare capacities, the UAE has played a crucial role in balancing supply cuts and increases. ■

Waste costs world $30trn in economic value

THE global economy is losing vast value through systemic waste and inefficiency, with a new assessment putting annual losses at €25.4 trillion ($29.7) , equivalent to 31 per cent of global GDP, underscoring the scale of economic exposure linked to linear resource use.

According to the Circularity Gap Report 2026 by Circle Economy and Deloitte Netherlands, the newly introduced "Value Gap" places end-of-life waste at €10 trillion, energy losses at €8.7 trillion and depreciation from wear and obsolescence at €5.2 trillion, while processing losses reach €904.2 billion and food losses €650.7 billion.

The report retains a circularity rate of 6.9 per cent, with more than 93 per cent of materials sourced from virgin inputs.

The analysis attributes these losses to inefficient generation and industrial processes, discarded residual value in retired assets, and material destruction during production and supply chains.

The report signals broader implications for resource productivity, capital preservation and future circular economy. ■

Women leaders playing pivotal role in Mideast energy sector

WOMEN are playing an increasingly influential role in shaping the Middle East's energy ecosystem, as leadership diversity, operational excellence and specialist expertise gain prominence across mission-critical services.

Across the sector, progress is reflected in expanding female-led management teams, growing specialist workforces and broader investment in services supporting oil and gas operations, from crew logistics and emergency response to traveller safety and compliance.

This momentum is also aligning with wider adoption of digital tools, improved reporting capabilities and integrated systems designed to address fragmentation and strengthen operational visibility.

The shift is being driven by the need for agile decision-making, business continuity and practical solutions in high-risk environments, while organisations increasingly recognise that inclusive leadership can enhance performance, strengthen culture and support long-term competitiveness.

Looking ahead, the growing presence of women in leadership roles carries wider implications. ■

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Alena Dique

Lynn Coutts

INSIDE

Power consumed by data centres could reach 1,200 TWh by 2035

AI'S ENERGY HUNGER REDRAWS MAP OF GLOBAL POWER DEMAND

From data centre proliferation to battery breakthroughs and grid security, AI is simultaneously straining electricity systems and offering the most powerful toolkit yet for transforming how the world produces and consumes energy

BY ABDULAZIZ KHATTAK

THE electricity consumed by the world's data centres reached roughly 1.5 per cent of global electricity demand, to approximately 415 terawatt-hours (TWh) in 2024, and the International Energy Agency (IEA) projects that figure will more than double to around 945 TWh by 2030, before potentially climbing as high as 1,200 TWh by 2035 in the base case.

These numbers represent nothing less than the most significant structural shift in energy demand since the industrialisation of developing economies.

A single hyperscale, AI-focused data centre today consumes as much electricity annually as 100,000 households. The largest facility currently under construction could match the consumption of 2 million households.

The full scope of these dynamics, and of artificial intelligence's (AI) simultaneously disruptive and potentially transformative role across the energy system, is set out in the IEA's landmark 'Energy and AI' report.

The report's framing is deliberately dual. AI is both a voracious and growing consumer of electricity and a sophisticated instrument for managing, decarbonising and securing the energy systems on which all modern economies depend.

ANATOMY OF ENERGY-HUNGRY TECHNOLOGY

AI's rise from an academic discipline to an industry with trillions of dollars at stake has been underpinned by three compounding forces: A dramatic decline in the cost of graphics processing units; an exponential growth in the scale of training datasets; and successive algorithmic breakthroughs.

Of the $16 trillion increase in the market capitalisation of S&P 500 companies since 2022, $12 trillion has come from AI-related firms.

These computational gains are not free as training the largest AI models requires infrastructure of formidable scale.

For example, GPT-4 was trained on

25,000 GPUs drawing a combined rated power of roughly 22 megawatts (MW) over a 14-week period and consuming an estimated total 42.4 gigawatt-hours (GWh).

The largest model in the IEA's dataset of 283 large AI models drew a maximum training power of around 154 MW, with total training electricity consumption estimated at approximately 310 GWh.

Collectively, large AI models trained since 2020 are estimated to have consumed around 1,700 GWh.

The geography of this demand is highly concentrated, with the US having consumed around 180 TWh from data centres in 2024.

The US and China together account for nearly 80 per cent of global data centre electricity demand growth to 2030, with US per-capita consumption projected to exceed 1,200 kWh by the decade's end.

On the supply side, renewables are projected to provide the largest single contribution to meeting that growth, adding over 450 TWh to 2035, while natural gas expands by around 175 TWh, concentrated primarily in the US.

The broader ICT sector, encompassing data centres, telecommunications networks and end-user devices, consumed over 1,000 TWh of electricity in 2023, roughly 4 per cent of global electricity use. Data centres accounted for approximately one-third of that total.

The IEA notes that around 20 per cent of planned data centre projects to 2030 could face delays due to grid connection queues and supply-chain constraints on critical components including transformers and gas turbines.

AI AN INSTRUMENT OF ENERGY OPTIMISATION & INNOVATION

The oil and gas sector has been among the earliest and most systematic adopters of AI in the energy industry.

Between 2000 and 2024, the number of oil and gas companies with supercomputers ranking among the world's 500 fastest grew from 11 to 24, with total computing capacity expanding at nearly 70 per cent annually, outpacing the broader supercomputing industry.

Applications span the full production cycle, such as AI-assisted seismic processing has been shown to improve subsurface classification accuracy by up to 90 per cent, while geological models that once took months to produce can now be generated in hours.

ADNOC's 90-day trial of an AI agent based on a 70-billion-parameter large language model improved seismic processing accuracy by 70 per cent.

In the IEA's widespread adoption scenario, AI-led interventions could reduce the full-cycle costs of a new deepwater offshore development by up to 10 per cent, through more efficient drilling, reduced labour requirements and leaner materials supply chains.

On grids and power systems, the potential scale of AI-driven optimisation is striking.

The IEA estimates that applying AI-based fault detection and grid management tools to transmission infrastructure could unlock the equivalent of several gigawatts of additional transmission capacity, without constructing a single new line.

That increment exceeds the increase in power load attributable to data centres themselves, pointing to a net systemic benefit if deployment is sufficiently widespread.

Taken together, the IEA's widespread adoption case estimates that existing AI applications in end-use sectors could deliver 1.4 gigatonnes of CO_2 emissions reductions in 2035.

That is three times larger than total projected data centre emissions in the high-demand scenario, and nearly five times larger than those in the base case.

AI'S IMPACT ACROSS THE ENERGY SUPPLY CHAIN

In the domain of energy innovation, AI's most consequential near-term impact may be in materials discovery.

The report details AI's application across four critical technology areas: Next-generation battery chemistries, synthetic fuel catalysts, carbon capture materials and low-emissions cement.

In battery research, AI is already being deployed by manufacturers, such as CATL for image-based defect detection on production lines, and is being applied to materials discovery workflows that could reduce the time required to identify viable new chemistries by as much as a factor of ten.

In CO_2 capture, AI has been used to generate 120,000 candidate metal organic framework materials in a single automated workflow, and the IEA estimates that AI-assisted development could reduce overall time-to-market for new carbon capture materials by around 30 per cent.

For synthetic fuel catalysts, AI tools have accelerated catalyst performance calculations by a factor of almost 200, from hours to seconds, though the report is careful to note that scaling these laboratory advances into commercially viable industrial processes remains a formidable challenge that AI alone cannot resolve.

SECURITY, EQUITY & POLICY IMPERATIVE

The supply chains underpinning data centre infrastructure are among the most geographically concentrated in the global economy.

China currently accounts for around 99 per cent of global refined gallium supply, a mineral increasingly critical to cutting-edge semiconductor designs.

The IEA estimates that by 2030, demand for gallium from data centres alone could represent a significant fraction of current global output.

Chip design is dominated by US-headquartered firms, while manufacturing is concentrated in TSMC's facilities in Taiwan, which held a 65 per cent share of foundry revenue in 2024.

These dependencies represent systemic vulnerabilities that require dedicated policy attention alongside traditional energy security considerations.

On the other side of the ledger, AI is strengthening energy security capabilities.

Satellite monitoring systems guided by AI can now detect methane leaks in oil and gas infrastructure more accurately than ground-based methods at high spatial resolution, enabling faster repair and reducing one of the sector's most significant near-term emissions sources.

AI-powered cybersecurity tools are improving the resilience of critical energy infrastructure against an evolving threat landscape, while enhanced demand forecasting and predictive maintenance reduce the frequency and duration of unplanned outages.

REST OF THE WORLD STRIVING TO CATCH UP

Emerging market and developing economies other than China account for approximately half of the world's internet users but less than 10 per cent of global data centre capacity.

High capital costs, unreliable grid infrastructure and limited digital skills all constrain AI adoption.

However, the IEA report also identifies a genuine leapfrog opportunity, and it says that countries with more recently built industrial and commercial infrastructure may find it easier to equip facilities with sensors and AI management systems than advanced economies burdened by legacy assets.

India's data centre capacity has doubled in four years to 2 GW, with a further 2 GW in the pipeline, though coal provides 74 per cent of current electricity generation.

Government AI R&D expenditure grew from $2.6 billion in 2018 to more than $7 billion in 2023, with the US, European Union and China the primary contributors.

National policy frameworks are also evolving from broad AI strategies to sector-specific energy and AI governance tools.

Beijing banned the construction of data centres with a power usage effectiveness above 1.5 since 2018, while the Netherlands and Singapore imposed temporary moratoriums as they assessed grid capacity.

South Korea offers a 50 per cent discount on electricity facility levies for data centres located outside the congested Seoul metropolitan area.

The IEA argues that governments must go further, mandating energy consumption reporting, supporting data production for AI-driven energy innovation and developing cross-border frameworks to manage semiconductor supply chain dependencies.

Data centre indirect CO_2 emissions stand at around 180 million tonnes today, rising to an estimated 300 million tonnes by 2030 in the base case.

That is still below 1.5 per cent of total energy sector emissions, but among the fastest-growing emission sources in the global economy. ■

No option: Oil and gas companies can no longer afford to delay digitalisation

Escalating cyberthreats, geopolitical tensions, mounting emissions regulation, and rapid AI innovation are converging to make digitalisation a strategic imperative, not an option, for global energy operators

THE oil and gas industry has historically approached digital technology through a transactional lens, investing where a clear return could be demonstrated and retreating when it could not.

However, that calculus has changed, and digitalisation is no longer viewed as discretionary innovation, but as operational necessity.

According to Oil and Gas Technology Outlook for 2030 and Beyond, commissioned by Rockwell Automation and researched by GlobalData, more than half of industry leaders now view cybersecurity and cloud computing as technologies actively disrupting operations, while nearly as many identify artificial intelligence as a transformative force.

What is driving that shift is not one breakthrough technology, but six structural pressures reshaping risk, cost and competitiveness across the value chain.

The first is a workforce challenge that has become strategic. With the average age of oil and gas workers now around 56 and a significant share of experienced professionals approaching retirement, operators face a widening knowledge gap.

Recruiting specialist Orion Group has warned that more than half of experienced engineers could retire within the next decade.

At the same time, technical roles remain difficult to fill, and this is elevating digital tools from productivity enhancers to workforce enablers.

AI-assisted training, virtual reality simulations and augmented-reality wearables are being deployed to accelerate knowledge transfer, preserve safety standards and reduce dependence on scarce expertise.

Automation adds another layer of resilience, allowing companies to sustain productivity without proportional increases in headcount, even as it creates demand for new digital skills.

The second force is the growing maintenance burden associated with operating in remote and harsh environments.

Offshore assets face constant corrosion, extreme weather exposure and logistical constraints that make manual inspection costly and inefficient.

In such settings, connected sensors, real-time monitoring and predictive analytics have become critical.

Industrial IoT (IIoT) systems now allow operators to identify anomalies before they develop into failures, reducing downtime and improving asset integrity.

The main drivers incentivising the adoption of digital technologies in the oil and gas industry

Predictive maintenance, once treated as a digital ambition, is increasingly becoming standard operating practice, particularly for offshore and complex processing facilities.

SUPPLY CHAIN VOLATILITY, REGULATION & CYBER RISK

The third driver is supply chain volatility, and this is obvious because geopolitical disruption, commodity price instability and trade uncertainty have exposed the fragility of globally dispersed supply networks.

From maritime chokepoints to regional conflicts, disruptions increasingly carry operational and commercial consequences.

This is accelerating investment in shared digital platforms that integrate suppliers, contractors and operators through cloud-based systems.

Real-time visibility across procurement, logistics and project execution is becoming essential to resilience.

In a volatile operating environment, disconnected systems are increasingly seen as a source of risk rather than inefficiency alone.

Environmental compliance forms the fourth structural pressure. Methane regulations, emissions reporting requirements and decarbonisation commitments are moving compliance from periodic reporting to continuous monitoring.

Sensor networks that track methane and emissions performance in real time, supported by analytics that can identify trends and flag emerging compliance risks, are becoming part of the sector's operating infrastructure.

What began as emissions management is evolving into digitally enabled compliance architecture.

The fifth force is cybersecurity, now elevated from IT concern to board-level risk.

The growth of connected assets, cloud systems and operational technology has widened the attack surface significantly.

Ransomware, phishing and attacks targeting industrial control systems have reinforced the vulnerability of critical energy infrastructure.

As a result, cybersecurity spending is rising sharply, reflecting a recognition that digital transformation cannot advance without digital resilience.

In increasingly connected operations, cybersecurity is becoming inseparable from operational continuity.

ECONOMICS OF CONVERGENCE

The sixth and perhaps most transformative force is the rapid maturation of artificial intelligence itself.

AI has moved beyond experimentation into scalable industrial use, from optimisation and predictive analytics to autonomous operations.

Across the sector, companies are deploying AI to improve drilling performance, optimise production, enhance safety monitoring and reduce emissions.

Autonomous underwater vehicles, AI-driven process control and emerging agentic AI systems capable of autonomous reasoning point to a deeper shift in how operations may be managed, and the examples are already emerging.

Saudi Aramco, working with Yokogawa, deployed an advanced AI system at the Fadhili Gas Plant to optimise stabilisation processes and lower emissions.

Such projects signal how AI is moving from pilot phase into core operations.

What makes these six forces particularly significant is that they do not act independently; they reinforce one another.

Companies are no longer making isolated digital investments to solve individual problems; they are reconfiguring processes end-to-end.

Global technology expenditure in the energy sector is rising rapidly, with Asia-Pacific and the Middle East among the strongest growth regions.

Patent activity in oil and gas technologies has also surged, underscoring the pace of innovation reshaping the sector.

For an industry often characterised as cautious in adopting change, digital transformation is becoming foundational to resilience, compliance and long-term performance. ■

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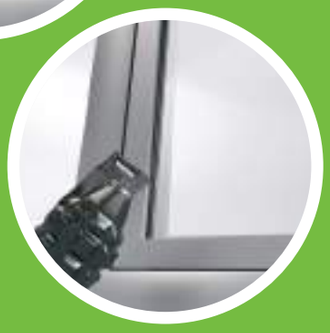

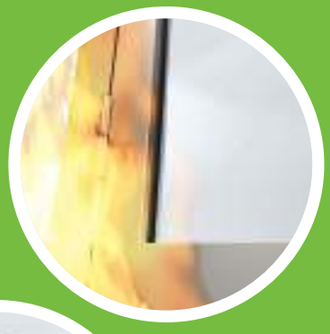

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Energy firms accelerate AI partnerships to transform industrial operations globally

Gulf NOCs lead a wave of strategic technology alliances as energy firms increasingly rely on AI platforms, cloud infrastructure, and digital twins to drive efficiency and long-term competitive advantage

BY ABDULAZIZ KHATTAK

THE pace at which the world's largest energy companies are committing to artificial intelligence (AI) and digital transformation has shifted from deliberate to urgent.

Across the Gulf and beyond, national oil companies (NOCs), integrated majors, and energy technology specialists are forging partnerships with global IT and cloud providers, not as exploratory pilots, but as core strategic commitments designed to reshape how energy assets are planned, operated, and optimised at industrial scale.

Nowhere is this acceleration more visible than in Saudi Arabia. In February 2026, Aramco signed a non-binding memorandum of understanding (MoU) with Microsoft to explore a series of digital initiatives targeting industrial AI adoption, digital infrastructure, and workforce development.

The agreement encompasses four focus areas: Digital sovereignty and data residency, operational efficiency, an industry alliance framework to broaden AI adoption across the Kingdom's industrial value chain, and co-innovation of industrial AI intellectual property.

The MoU includes programmes to build Saudi capabilities in AI engineering, cybersecurity, data governance, and product management.

This is an explicit acknowledgement that technology partnerships must translate into domestic human capital, not merely imported solutions.

Microsoft's Brad Smith framed the collaboration as moving industrial AI from pilot status into core operations, with a particular emphasis on sovereign-ready infrastructure aligned with Saudi Arabia's Vision 2030 objectives.

Aramco Digital, the technology subsidiary of Aramco, has simultaneously operationalised a separate strategic agreement with Cumulocity, a global industrial AIoT platform provider, to jointly deliver industrial AI-of-Things solutions across the GCC.

The first deployment sees Aramco Digital implementing Cumulocity as the core platform for an advanced fleet management programme supporting Aramco's operations in the Kingdom, delivering real-time visibility and intelligent management of connected vehicles and industrial assets.

The partnership is designed to accelerate enterprise-scale digitisation across asset-intensive sectors including transportation, logistics, energy, and infrastructure, with Aramco Digital providing localised integration and lifecycle support capabilities.

CONVERGENCE OF ENERGY & DIGITAL STRATEGY

In the neighbouring state of the UAE, the Abu Dhabi National Oil Company (ADNOC) has pursued a parallel trajectory.

Under a strategic agreement announced in November 2025, ADNOC, Masdar, XRG, and Microsoft committed to co-developing and deploying AI agents across ADNOC's value chain to drive autonomous operations and reduce emissions, while simultaneously delivering clean energy solutions in support of Microsoft's global AI and data centre expansion.

ADNOC's digital maturity is already considerable:

Credit: Siemens Digital Industries Software

Aramco and Cumulocity will jointly deliver industrial AI-of-Things solutions across the GCC

The company was the first energy firm to roll out generative AI enterprise-wide in November 2023 using Microsoft Copilot, and has since recorded over 70,000 hours per month in productivity gains, with AI utilisation rates exceeding 90 per cent across more than 40,000 trained employees.

The expanded agreement introduces Masdar and XRG as energy infrastructure providers to support Microsoft's data centre growth, establishing a reciprocal model in which energy companies both consume and supply the resources required by the AI era.

The logic driving these alliances is grounded in operational and financial necessity as much as strategic ambition.

Industrial operators across the region manage vast, geographically distributed asset bases, such as fleets, pipelines, refineries and power systems that generate enormous volumes of data, which legacy systems are ill-equipped to process in real time.

Cloud-native platforms, AI-driven analytics, and digital twins provide the architecture to convert that data into operational intelligence, reducing downtime, extending asset life, and improving decision-making across complex value chains.

DIGITAL TWINS AND INDUSTRIAL AI RESHAPE INFRASTRUCTURE

The transformation traverses across the energy sector. Siemens and NVIDIA this year announced a significant expansion of their strategic partnership aimed at building what the companies term an Industrial AI Operating System.

This includes a full-stack integration of NVIDIA's accelerated computing infrastructure with Siemens' industrial software, hardware, and data assets.

The collaboration targets the entire industrial lifecycle, from electronic design automation to adaptive manufacturing and supply chain management.

A concrete output is the planned deployment of the world's first fully AI-driven adaptive manufacturing site, beginning in 2026 at the Siemens Electronics Factory in Erlangen, Germany, with the Siemens Digital Twin Composer.

Due on the Xcelerator Marketplace in mid-2026, the composer enables physics-accurate virtual modelling of products, processes, and plants in real time.

PepsiCo's early deployment of the platform has already demonstrated a 20 per cent increase in throughput on initial rollout.

In grid infrastructure, both Schneider Electric and GE Vernova have advanced AI-driven modernisation frameworks for utilities.

Schneider Electric's One Digital Grid Platform, launched in November 2025 on Microsoft Azure, integrates planning, operations, and asset management with AI-enabled capabilities including real-time outage restoration estimation and automated network model tuning.

A Forrester Consulting study of utilities using the platform's core ADMS component recorded a 184 per cent return on investment, $62 million in business benefits, and a 16-month payback period.

GE Vernova's GridOS partner ecosystem, which includes Accenture, is addressing the parallel challenge of integrating exponentially growing renewable capacity into a grid that, according to Schneider Electric's Sustainability Research Institute, must add between 1,000 and 2,000 terawatt hours (TWh) of electricity per decade to meet demand from AI computing, manufacturing, and electrification alone.

Baker Hughes, meanwhile, announced in March 2026 a collaboration with Google Cloud to develop AI-enabled power optimisation and sustainability solutions specifically for the data centre sector, combining the company's turbomachinery and power systems expertise with Google Cloud's AI analytics to address the energy intensity of global AI infrastructure. ■

Smart connectivity is transforming how value is extracted from measurement points

Cybersecure systems drive GCC industrial resilience amid escalating digital threats

Connected instrumentation security and AI-enabled intelligence redefine resilience across GCC's energy, water, hydrogen and data infrastructure, strengthening protection for critical industrial systems, Jay Gadhavi tells *OGN*

BY ABDULAZIZ KHATTAK

MORE than 30 engineers, operations managers, and technology leaders from across the GCC brought with them a question that is reshaping boardrooms from Riyadh to Abu Dhabi: What happens when a flowmeter becomes an entry point for a cyberattack?

The experts, who were from Saudi Chevron, MEC Globe, TMS Oman, Saipem, and KROHNE, were participating in KROHNE Middle East's cybersecurity webinar, the opening instalment of the company's newly - launched Resilient Technology Webinar Programme.

The engagement was striking not just in its breadth, but in its depth: Q&A exchanges extended well into the session, with professionals from Saudi Chevron and MEC Globe pressing for detail on IEC 62443 compliance pathways, vendor assessment frameworks, and the practical steps for hardening OT environments against an escalating threat landscape.

That engagement reflects a broader shift in how GCC operators are thinking about their instrumentation estate.

Flowmeters, level sensors, and pressure transmitters — the devices that have quietly governed process control for decades — are now connected nodes in a digital architecture that extends from the well-head to the enterprise network; and their vulnerability is no longer theoretical.

INNOVATION AS THE ENGINE OF REGIONAL RESILIENCE

Jay Gadhavi, General Manager of KROHNE Middle East, has spent the past several years watching the region's industrial priorities crystallise around a single concept: Resilience.

Jay Gadhavi

Not the resilience of the past — redundant pipes and manual failsafes — but a new, intelligent resilience built from connected measurement, predictive analytics, and AI-enabled decision-making.

"AI-enabled analytics, digitisation, and smart connectivity are transforming how operators extract value from every measurement point," Gadhavi tells ***OGN***.

His perspective draws on a region that is simultaneously running the world's largest hydrocarbon operations and building from scratch the digital infrastructure to power its AI ambitions.

These are not separate agendas.

The same measurement intelligence that improves hydrocarbon recovery also feeds the digital twins that will underpin the next generation of industrial assets.

The flow computer that monitors a desalination plant feeds the same data architecture as the AI platform optimising a hyperscale data centre cooling loop.

For Gadhavi, this convergence is not incidental. It is the defining opportunity for companies like KROHNE that sit at the intersection of physical measurement and digital intelligence.

"AI, digitisation, smart connectivity, and efficiency are no longer discrete technology themes," the company's press release states.

"They are converging into the operating logic of the region's next generation of industrial assets."

Pipeline security, hydrogen export infrastructure, data centre buildout, water stewardship, and the digitalisation of custody transfer is each a national priority, and each is a domain where measurement technology is no longer peripheral.

The aforementioned cybersecurity session made that case in concrete terms.

Participants left with a clearer understanding of where IEC 62443 sits in the broader OT security architecture, what a vendor's cybersecurity posture should look like at the point of procurement, and how the region's regulatory frameworks, such as UAE NESA and Saudi NCA, are shaping the requirements that operators will soon need to meet as standard. ■