

SECTOR INSIGHT · 03 · POWER & GRID

Everything else in the Gulf is waiting on the grid.

Saudi Arabia alone is committing up to US\$58.7bn to network upgrades. Solar, hydrogen and every AI data centre in the region connect through the same substations — built by the same shrinking pool of engineers.

US\$58.7bn

Saudi transmission and distribution upgrade plan, 2025–2030

US\$36bn

Of that, allocated to the transmission backbone

7,000MW

Capacity of Saudi Arabia's $\pm 500\text{kV}$ VSC-HVDC scheme

US\$700m

GCCIA–Oman interconnection, construction started 2026

EXECUTIVE SUMMARY

Grid is the least glamorous sector in the Gulf and the one everything else depends on.

Saudi Electricity Company has launched a transmission and distribution upgrade plan of up to US\$58.7bn — around SAR 220bn — for the period 2025 to 2030, of which roughly US\$36bn is directed at the transmission backbone and US\$22.7bn at distribution. TAQA has committed to US\$10.9bn of transmission and distribution investment. The GCC Interconnection Authority has around US\$1.5bn of expansion underway across three major projects.

This spending receives a fraction of the attention given to metros, solar farms and AI campuses. That is a mistake, because every one of those depends on it. A 3GW solar plant that cannot be connected generates nothing. A 200MW data centre without a confirmed grid connection is a construction site. Transmission is the sequencing constraint on the entire Gulf infrastructure programme.

The workforce implication is uncomfortable. Grid delivery depends on a set of disciplines — HVDC commissioning, protection and control, substation testing, energisation management — that are scarce globally, ageing in most developed markets, and being competed for simultaneously by the renewables and data centre sectors that the grid exists to serve.

**Nobody writes a press release about a 380kV bulk supply point.
Everything in the region is waiting on one.**

US\$906m

Saudi 380kV substation and line awards at Afif

US\$526.6m

SSEM 500kV HVDC line, Riyadh to Kudmi

530km

Two new 400kV lines, UAE AI Sila to Oman Ibri

AED3.2bn

TAQA Q1 2026 capex, up 45.5% year on year

THE ARGUMENT OF THIS REPORT

Grid programmes are being awarded faster than the region can staff their commissioning phases. HVDC converter station commissioning is among the scarcest engineering disciplines in the world; the Gulf is building several concurrently. Protection and control engineers, substation commissioning specialists and energisation managers are being drawn on by transmission owners, renewable developers and hyperscale data centre operators at the same moment. This is not a recruitment market that responds to higher rates. It responds to longer planning horizons.

THE CAPITAL

Programmes, packages and awards

The table below covers investment programmes and individual contract awards that are committed or under construction as at July 2026.

Programme / award	Country	Value	Detail	Workforce signal
Saudi Electricity Company T&D upgrade	Saudi Arabia	Up to US\$58.7bn (SAR 220bn)	2025–2030 network upgrade plan: approximately US\$36bn to the transmission backbone and US\$22.7bn to distribution. SEC has separately signalled investment of around SAR 500bn by 2030.	The single largest sustained grid workforce requirement in the region.
±500kV VSC-HVDC scheme	Saudi Arabia	National programme	Four ±500kV VSC-HVDC converter stations at Riyadh, Giza and Jeddah with a combined transmission capacity of 7,000MW. System commissioning scheduled to complete by end-2026.	Critical — HVDC converter commissioning is the scarcest grid discipline worldwide.
Afif 380kV bulk supply points	Saudi Arabia	~US\$906m	New 380kV BSP substations and associated overhead transmission lines in central Saudi Arabia. Al Gihaz Contracting awarded approximately US\$256m for Afif 1; Al Babbain Contracting approximately US\$320m for Afif 2.	Substation construction, testing and commissioning teams.
SSEM 500kV HVDC transmission line	Saudi Arabia	US\$526.6m	HVDC transmission line section from the PP14 power plant in Riyadh to Kudmi in the south-west.	Overhead line construction, stringing supervision and route management.
L&T HVDC and substation package	Saudi Arabia	~US\$403.8m	±500kV HVDC links interconnecting national electricity regions, plus two 380kV overhead transmission lines and a 380kV GIS substation.	GIS installation and commissioning specialists.
GCCIA–Oman direct interconnection	UAE / Oman	US\$700m	Construction started February 2026. Two 400kV lines over 530km linking GCCIA's Al Sila station in the UAE to a new Ibri station in Oman, plus two 400kV substations at Ibri and Al Bynouna. Raises Oman–GCC transfer capacity to around 1,600MW.	Cross-border delivery: two regulatory regimes, two mobilisation pathways.
GCCIA expansion programme	GCC-wide	~US\$1.5bn	Three major projects including expanded Kuwait and UAE interconnections and the direct Oman link. Estimated three to four years to completion.	Sustained multi-country demand for HV and interconnection specialists.
TAQA transmission and distribution	UAE	US\$10.9bn	Long-term T&D investment plan. Q1 2026 capital expenditure of AED 3.2bn, up 45.5% year on year.	Steady, large-scale UAE demand across the full grid discipline range.

Programme / award	Country	Value	Detail	Workforce signal
TRANSCO 400kV substations	UAE	Under construction	New 400kV substations in Sharjah and Ras Al Khaimah, entering service 2028.	Commissioning demand peaks 2027–2028.

Values as publicly reported by the utility, authority or contractor. See the source note on the final page.

DEMAND CONVERGENCE

Three sectors, one talent pool, one moment

The defining feature of the GCC grid labour market in 2026 is not the volume of transmission work. It is that three separate infrastructure booms have converged on the same narrow set of high-voltage disciplines at the same time.

Source of demand	What it needs from the grid workforce	Scale of the pull
Transmission programmes	HVDC and HVAC commissioning, protection and control, substation construction and testing, OHL construction, energisation and outage planning.	US\$58.7bn Saudi plan, US\$10.9bn TAQA plan, US\$1.5bn GCCIA expansion.
Renewable generation	Grid connection engineers, system studies, HV commissioning, energisation coordination for every new plant.	Around 62GW under development across the GCC, of which only ~19GW was connected at mid-2025.
Data centres and AI infrastructure	HV connection engineers, electrical commissioning, power systems design — effectively the same people, in a sector that pays technology-market rates.	Regional capacity forecast to roughly triple by 2030; Stargate UAE alone targets 5GW.

WHY THIS IS DIFFERENT FROM A NORMAL SHORTAGE

- These three sectors are not competing at the margin. They need the same core discipline — high-voltage commissioning — and there is no substitute skill set that can be redeployed into it at short notice.
- Data centre operators can pay materially above utility rates and frequently do. That pulls experienced engineers out of transmission programmes, which then run late, which then delays the grid connections the data centres are waiting for.
- The discipline is ageing in the markets the Gulf traditionally recruits from. In Europe and North America, HV protection and commissioning engineers are retiring faster than they are being replaced, while those markets run their own grid investment cycles.
- Across the GCC, 90 per cent of organisations report significant skills gaps, with competition for the same people cited by 31 per cent as a leading cause. In high-voltage engineering, that competition is unusually concentrated.

CRITICAL ROLES

Where the market is tightest

Difficulty ratings and lead times below are INYA's own assessment of the GCC power and grid market as at July 2026.

Discipline	Asset type	Difficulty	Lead time	Comment
HVDC converter station commissioning engineers	HVDC	Critical	6–9 months	Among the scarcest engineering disciplines globally. Saudi Arabia is commissioning multiple converter stations concurrently.
Protection & control / SAS engineers	All	Critical	4–6 months	Required on every substation and every generation connection. Universal demand, finite supply.
Substation commissioning & testing engineers	AIS / GIS	Critical	4–6 months	The rate-limiting discipline on energisation dates across the region.
Energisation & outage planning managers	Network	High	4–5 months	Requires utility-side experience that very few contractor-trained engineers have.
GIS installation supervisors	GIS substations	High	4–5 months	Manufacturer-specific experience narrows the pool considerably.
HV cable jointers & terminators (up to 400kV)	Cabling	High	3–5 months	Certification-bound trade with a small qualified population.
Overhead line construction & stringing supervisors	OHL	High	3–5 months	Landbridge, GCCIA and Saudi backbone works are drawing on the same supervisors.
Grid connection & system studies engineers	Planning	High	4–5 months	Demand rising sharply with renewable and data centre connection queues.
Transmission project managers	All	Moderate–High	3–4 months	Available regionally, but genuine EHV programme experience is a much smaller pool.
Network operations & control room staff	Operations	Moderate–High	3–5 months	Permanent roles with long competence and certification cycles.

Lead times run from approved brief to productive on site, including visa processing and relocation. HVDC commissioning lead times reflect both scarcity and the tendency of these engineers to be contractually committed well in advance.

LOCALISATION

Where grid is genuinely well placed

Grid is, on balance, better positioned for nationalisation than most infrastructure sectors — provided the target is set against the right roles. Network operations, maintenance, control room and asset management are permanent, domestic, career-length positions. They are precisely the roles that a well-designed national development programme can fill, and they are where the sector's long-term headcount actually sits.

The current obligations

- **Saudi Arabia:** engineering firms with five or more engineers must maintain at least 30 per cent Saudisation, effective 27 July 2025 with a 30 June 2026 compliance deadline. A minimum salary of SAR 8,000 per month applies to engineering roles counted toward the target, and Saudi Council of Engineers accreditation is

required.

- **Saudi Arabia:** from 15 April 2026, Saudi employees count toward the quota only where the contract is electronically documented on the Qiwa platform. The new three-year Nitaqat cycle raised quotas across multiple professions and removed the Yellow tier.
- **UAE:** companies with 50 or more employees must reach 10 per cent Emiratisation in skilled roles by end-2026, rising 2 per cent annually in half-year steps. From 1 July 2026, non-compliance carries AED 10,000 per month per unfilled position.
- **UAE:** a minimum monthly wage of AED 6,000 for Emiratis in the private sector applied from 1 January 2026.

THE DISTINCTION THAT MATTERS

There is a real difference between roles that require twenty years of exposure to energised high-voltage plant and roles that require three years of structured development. HVDC commissioning is the former. Substation operations, protection settings administration, asset management, planning, HSE and network control are the latter. Utilities that concentrate their nationalisation effort on the second group build lasting domestic capability and hit their numbers. Utilities that spread the target evenly across every discipline miss on both counts – and lose the international specialists they placed under quota pressure. Structured technical training is the mechanism that makes the developable roles genuinely developable.

WHAT TO DO

Five moves worth making this quarter

01

Book commissioning capability against the energisation date

Commissioning engineers are the last discipline to arrive and the first to determine whether your date holds. Identify the energisation milestone, subtract six to nine months for HVDC and four to six for HVAC, and secure capability at that point – not when construction completes.

02

Watch the data centre pipeline as a hiring risk indicator

Every hyperscale campus announcement in your country is a future bid for your electrical commissioning engineers, usually at a higher rate. Treat data centre announcements as an early warning on your own retention.

03

Separate scarce disciplines from available ones

Project managers, planners and QS are recruitable in the region with normal effort. HVDC commissioning, protection and control, and energisation management are not. Applying the same process to both wastes attention on the roles that need it least.

04

Design nationalisation around operations, not construction

Network operations, maintenance and asset management are permanent, domestic and developable. They are where a national pipeline produces both compliance and real capability. Construction-phase quotas rarely produce either.

05

Track contractor demobilisation across the region

When a converter station or bulk supply point completes, an experienced commissioning team becomes available for a matter of weeks. Organisations that monitor this hire far better people than those running open advertisements.

You can finance a substation in a quarter. You cannot create a commissioning engineer in under a decade.

METHOD & SOURCES

How this briefing was built

INYA maintains a continuously updated register of GCC infrastructure programmes across four sectors, tracking stage, value, client, consultants, contractors and workforce signals. This briefing draws on that register, on public announcements by network owners and contractors, and on our leadership's direct delivery experience across the region's power programmes.

Primary sources monitored

- **Network owners:** Saudi Electricity Company and the National Grid SA, the GCC Interconnection Authority, TAQA Transmission and TRANSCO, DEWA, EtihadWE, Oman Electricity Transmission Company, Kahramaa, Bahrain EWA and the Kuwait Ministry of Electricity, Water and Renewable Energy.
- **Specialist press:** T&D World, Global Transmission Report, Energy & Utilities Middle East and Utilities Middle East.
- **Regional project intelligence:** MEED and MEED Projects, Saudi Gulf Projects, Zawya Projects and Construction Week Middle East.
- **Verification:** national tender portals (Etimad, Monaqasat, Oman Tender Board, Kuwait CAPT) and stock exchange disclosures from listed contractors on Tadawul, ADX, DFM, Qatar Exchange and Muscat Stock Exchange. Listed EPC contractors are often required to disclose material awards, including client, value and duration.
- **Regulatory:** Saudi Ministry of Human Resources and Social Development and the Qiwa platform; UAE Ministry of Human Resources and Emiratisation.

Notes on the figures

Investment programme values are as announced by the utility and in several cases have been restated over time; where two figures exist for the same programme, both are shown. Contract award values are as reported by the contractor or by established trade press and may represent a contractor's share rather than total package value. Difficulty ratings and lead times are INYA's own assessment of the current market, not third-party data.

Programme experience referenced in this document was gained by INYA's leadership in senior delivery and workforce leadership roles with major international organisations prior to founding INYA Solutions. It is referenced to demonstrate individual track record, not contracts held by INYA Solutions.

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WORK WITH INYA

The grid is the constraint on everything.

INYA Solutions mobilises the specialist workforce behind the Gulf's transmission and distribution build-out: HVDC and HVAC commissioning, protection and control, substation delivery, overhead line construction and network operations.

We are engaged by programme and project directors, not HR functions — because grid delivery dates are decided by commissioning capacity, and commissioning capacity is a workforce question that has to be answered a year before it is asked.

— Workforce Strategy & Planning

— Mobilisation & Compliance

— Specialist Search & Recruitment

— Workforce Development & Train-to-Deploy

INYA SOLUTIONS

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