

# JUST ENERGY TRANSITION SKILLING FOR EMPLOYMENT PROGRAMME (JET SEP)

## Strategic Intervention Factsheet: Transmission Talent Acceleration Initiative



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Accelerating the upskilling of a specialized talent-pool needed to build **South Africa transmission & distribution grid, a key bottleneck of the energy transition, by:**



**Aligning the pace and location of training with the TDP** and factoring in project uncertainty and shifting timelines to avoid oversupply or leaving gaps



**Using local experts (retirees)** to strengthen the local skills knowledge base for well-beyond the TDP, and to ensure quality maintenance and operations



**Adapting a currently niche-curricula** to cover flexible pathways so new and existing Tx workers can ensure employability beyond TDP

### South Africa's starting point



South Africa plans to **build 14K km of transmission lines** by 2035; with only 89 km built in 2024, the country does not have sufficient skills to meet the demand



In particular, a **critical shortage** of high-voltage and grid planning experts threatens this expansion, and therefore the roll out of the renewable energy pipeline



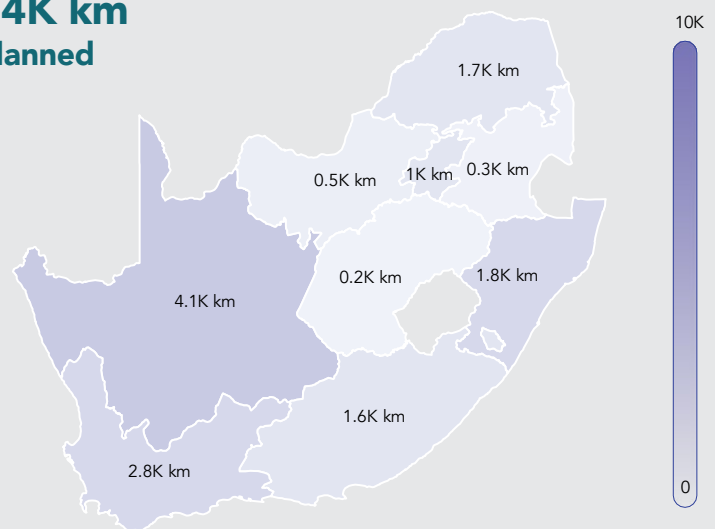
Between now and 2030, **550–900 HV electricians and 250–400 grid planners** must be trained to meet this demand



**While in the thousands, an urgent workforce investment** is essential to expand the grid and in turn unlock the broader energy transition

### Planned transmission expansion distances by 2035 (in km)

**14K km planned**



Source: NTCSA Transmission Development plan 2025-2034

### Applying global best practices to drive success locally



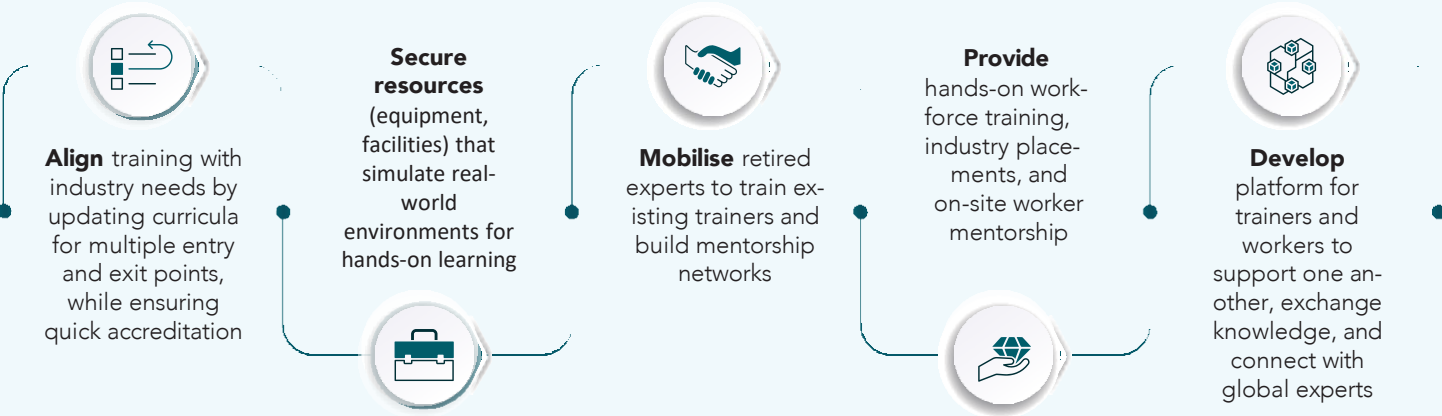
**India's National Power Training Institute** expanded the high-voltage workforce through mass, standardized, demand-led training - successfully enhancing grid efficiency and stability



**GIZ Nepal** empowered local workforces by developing self-sustaining train-the-trainer networks for solar grid integration

**JET SEP's intervention** aims to implement a train-the-trainer model to identify and mobilise 50 high-voltage (HV) and grid planning experts to support with upskilling 500 electricians and engineers in the next year

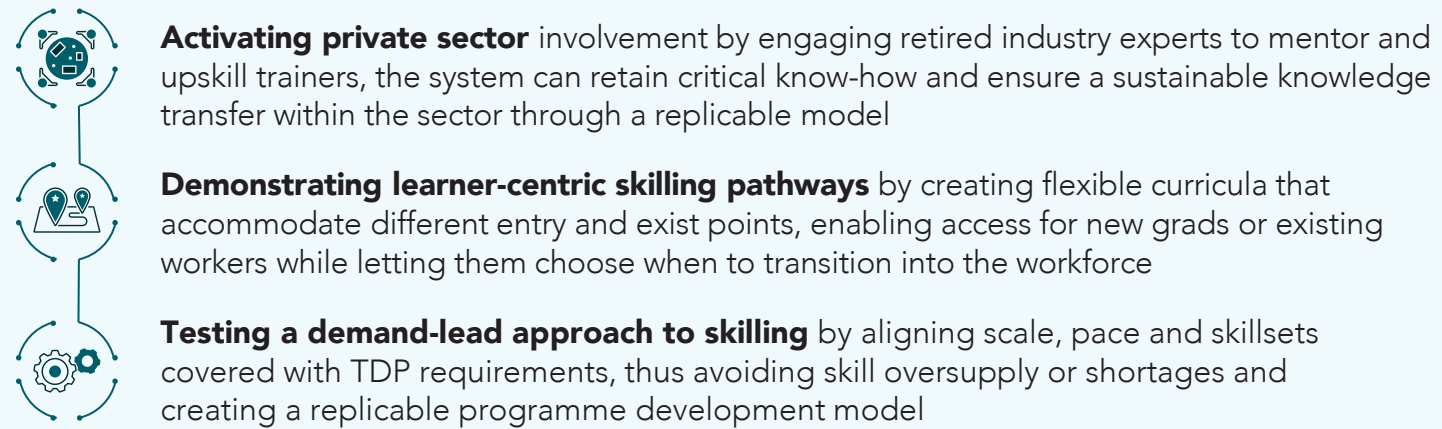
Key next steps:



As of March 2025



This intervention is a catalyst to realise 3 critical paradigm shifts required to drive system-level transformation



Support required to move forward

-  Technical and financial backing to refresh HV curricula and align training with modern grid needs
-  Funding for program design and delivery covering both HV electrician and grid planning tracks
-  Resources to engage retired experts for hands-on mentorship and on-the-job guidance

Get in touch



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Connect with us to



- Receive more information on strategic intervention
- Detail out what support and partnership could look like