



TRANSPower

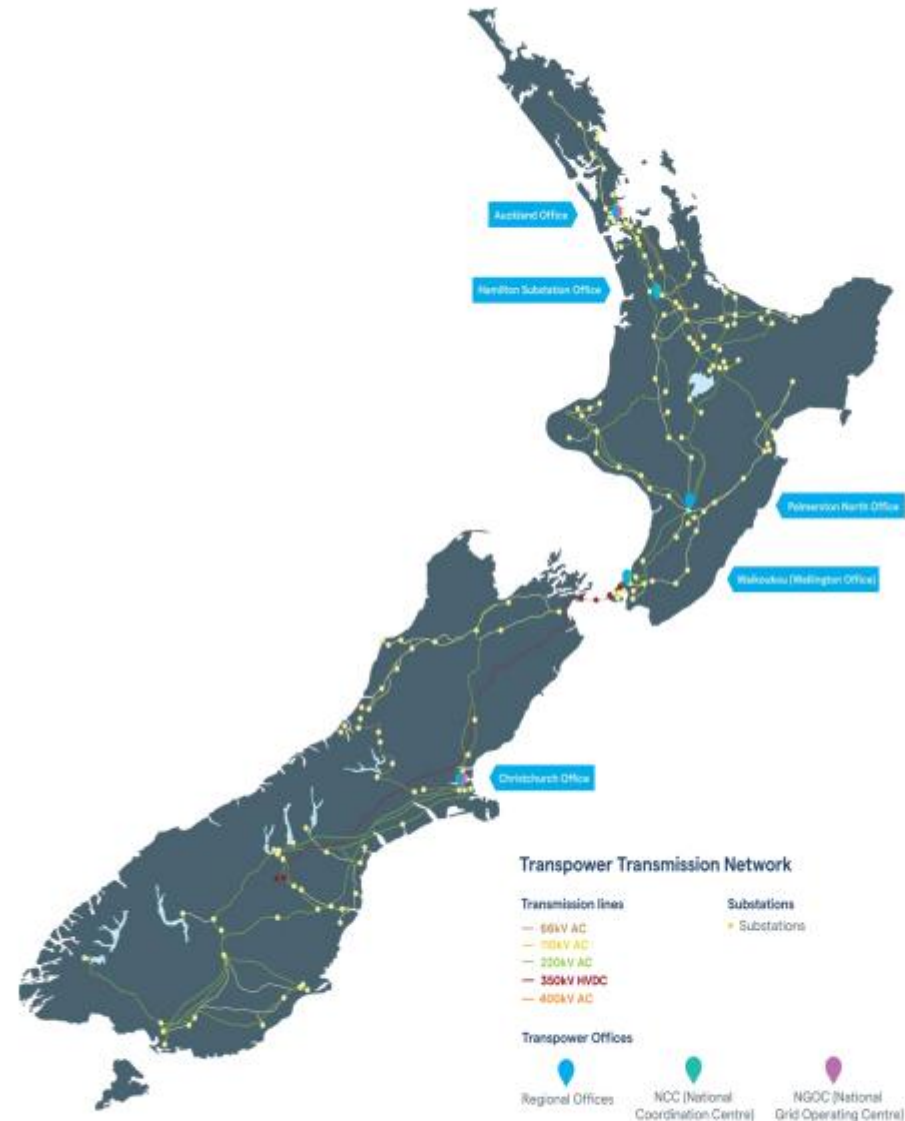
Sustaining the Backbone: The role of Grid Skills and Operational Training in the Transmission Sector

6 May 2025



Transpower - Who we are

- Owner and operator of New Zealand's national electricity transmission system
- We provide the infrastructure and market system that connects electricity generators to major electricity users and the distribution network
- Over \$5 billion in assets positioned across some 30,000 properties
- 174 substations, 25,000 transmission towers and more than 11,000 kilometres of lines
- Operate the electricity market system in real time
- Offices in Wellington, Auckland, Hamilton and Christchurch
- Around 1000 staff





History of training



Training function – Grid Skills and Operational Training

The role of the Sector Workforce Development Group

The Transpower Sector Workforce Development Group, comprises of Grid Skills (PTE) and Technical Training (internal).

The group designs and delivers trades training and technical training for the electricity transmission sector. The Group supports Transpower and the New Zealand transmission sector to attract, train and retain more skilled workers.



Products and services

The Group provides a broad range of products and services to learners and stakeholders. Learners include:

- **Transpower employees**
- the **Service Provider** field workforce and subcontractors.

As a registered Private Training Establishment, we must support the diverse needs and backgrounds of all learners and be ready to respond to changing workforce demographics.

Technical Training (Internal)

- Training courses, programmes, and resources for critical operational areas and projects
- Support of simulator training for Operations Control Centres
- Business as usual technical training

Grid Skills (Trades)

- Training courses and programmes for field workers, some of which lead to NZQA-accredited qualifications
- Compliance training for people who enter Transpower restricted areas to work on Transpower assets

Workforce Activation (Transpower and Sector)

- Initiatives to support workforce growth for Transpower and the sector
- Stakeholder and sector engagement

- Training advice and consultancy
- Training needs analyses, strategies and plans
- Learning experience design
- Programme development
- Learning systems
- Assessment and moderation
- Evaluation, data, analytics and insights
- Quality assurance and compliance of training
- Training delivery and coaching
- Training centres and equipment
- Maintaining training simulators





Our Why: Safety of People, Supply & Assets



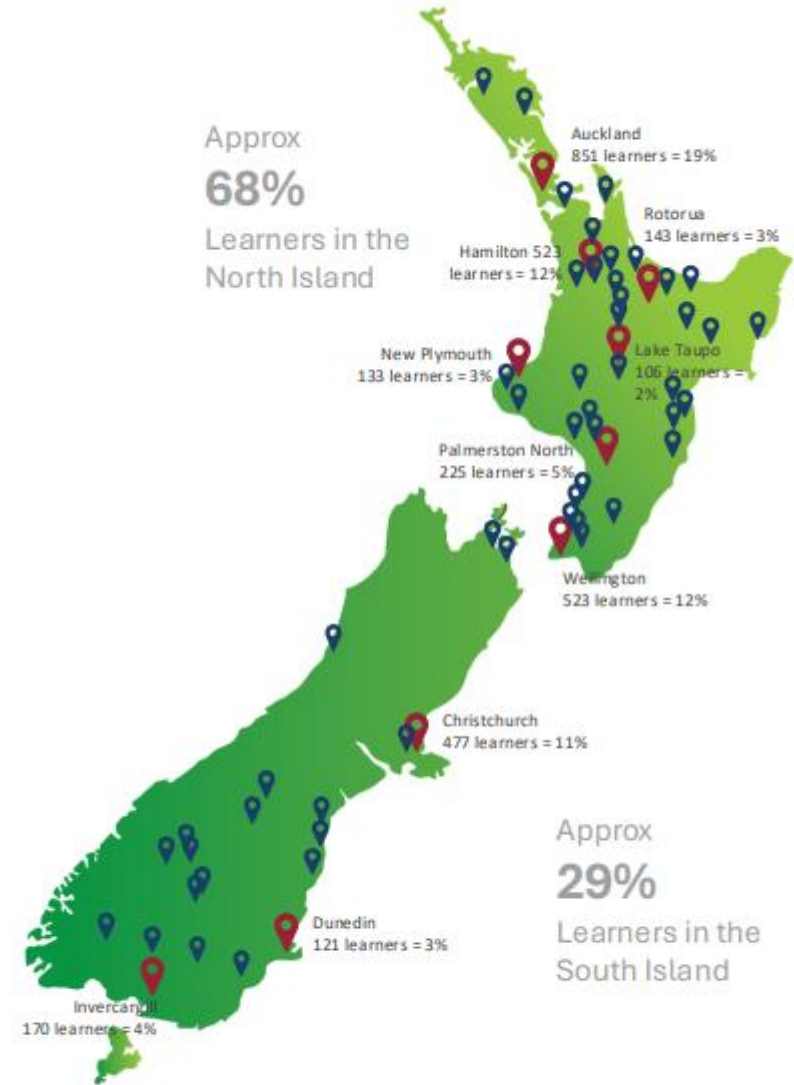
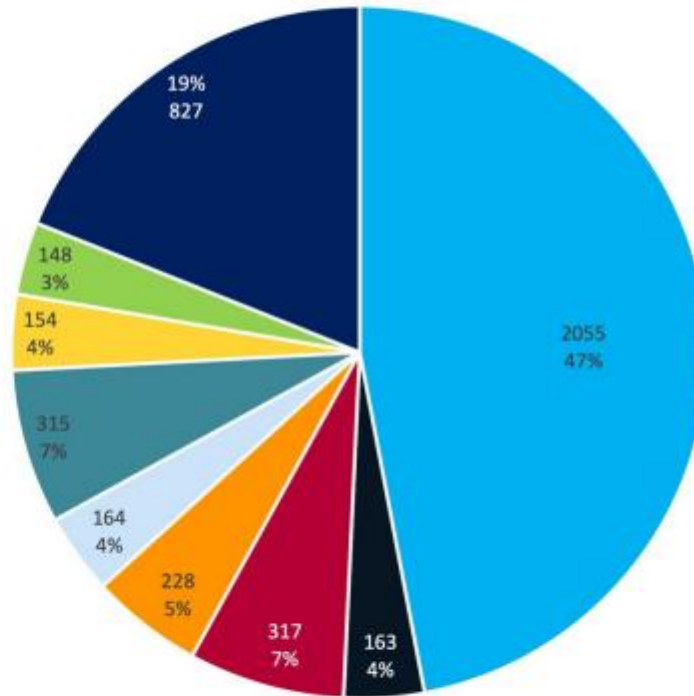
Our Trades learners – Grid Skills

Grid Skills active learners

Grid Skills Active learners or currently progressing through training curriculum and location.

Ethnicity

- 1. NZ European / Pākehā
- 1. Other European
- 2. Māori
- 3. Pacific Peoples
- 4. Asian
- 4. Filipino
- 5. MELAA
- 6. Other
- Not Stated



Note - these demographics are representative of the time of learner registration (This data is based on the past 2.5 years (July 2022 – January 2025)).

Map Key: Red = Areas with a higher concentration of learners (100+ learners). Blue = Areas with a smaller number of learners.

GRID SKILLS SNAPSHOT

2024 CALENDAR YEAR

2087

Total number of Grid Skills learners

8.7%

Grid Skills
Learners
under 25



| Ethnicity | TRADES | | COMPLIANCE | |
|-------------------------|--------|-----|------------|------|
| | Number | % | Number | % |
| 1. NZ European / Pākehā | 161 | 31% | 1118 | 47% |
| 2. Other European | 12 | 2% | 71 | 3% |
| 3. Māori | 61 | 12% | 135 | 6% |
| 4. Pacific Peoples | 40 | 8% | 130 | 5% |
| 5. Asian | 1 | 0% | 101 | 4% |
| 6. Filipino | 225 | 43% | 168 | 7% |
| 7. MELAA | 4 | 1% | 102 | 4% |
| 8. Other | 8 | 2% | 131 | 5% |
| 9. Multiple | 0 | 0% | 0 | 0% |
| 10. Not Stated | 11 | 2% | 447 | 19% |
| 11. Not Stated % | 2% | 523 | 19% | 2403 |



TRADES



COMPLIANCE

TRAINING SNAPSHOT

410

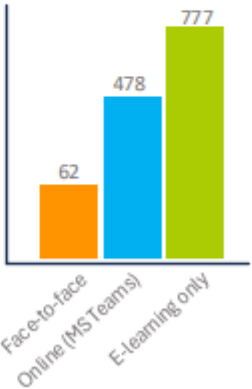
Compliance training
sessions delivered

117

Trades training
sessions delivered

68 NZQA qualifications awarded

SESSIONS HELD



ELECTRICITY SUPPLY WORKFORCE SNAPSHOT

90% Male

10% Female

25% Over 55 higher than the average of the total economy

Approx 15%

in Auckland, with a large proportion of the workforce
in Northland, Waikato, Taranaki, and Manawatu

Workers report long working hours and lack of flexibility

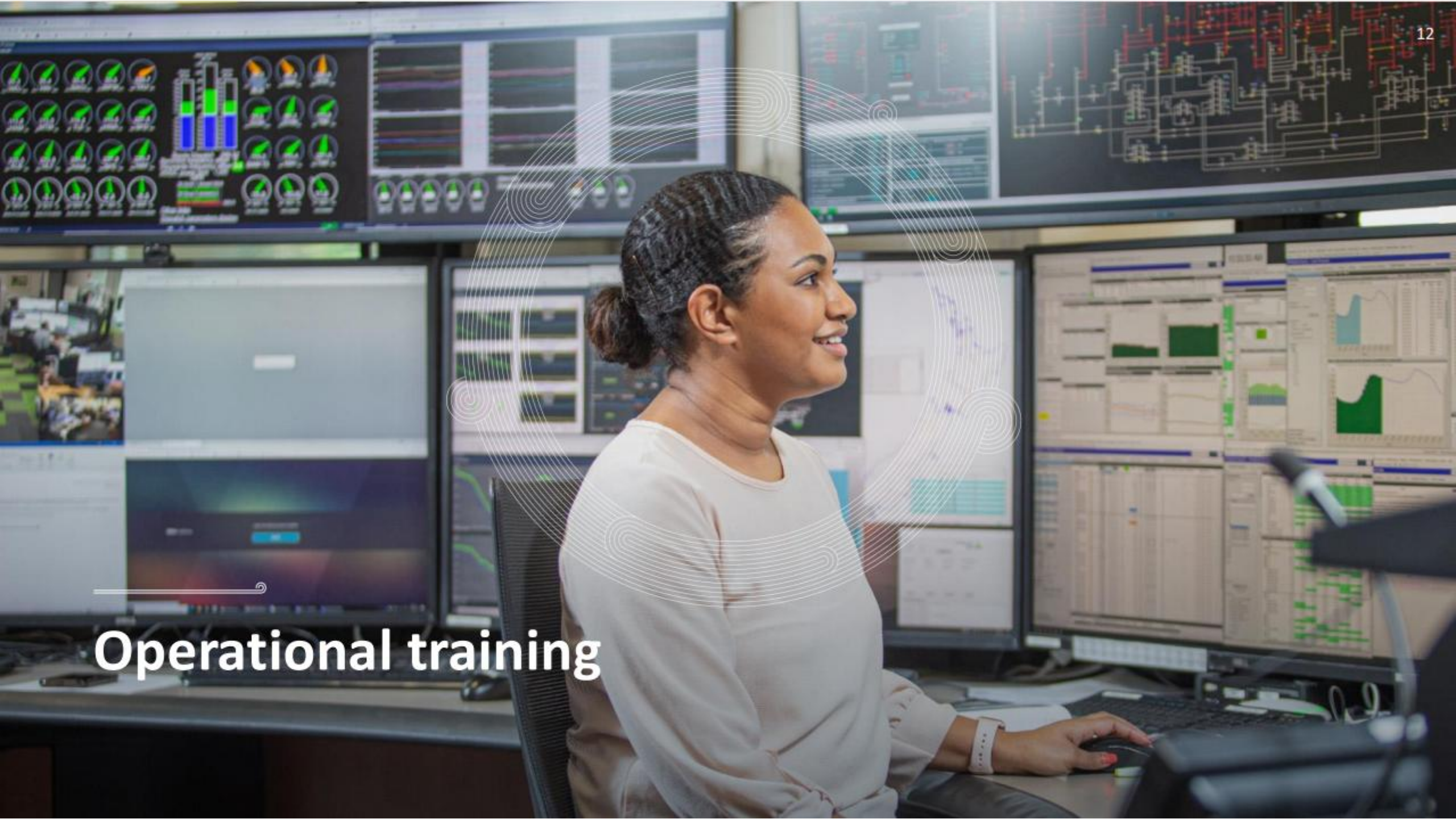
TRAINER NUMBERS

15 Trades trainers



Delivery

| Compliance Training | Substation Training | Line Mechanic Training |
|-----------------------------------|---|--|
| Substation Entry Level 1 & 2 | Connected Party Operator | Tower structure Maintainer |
| Work Management | Maintenance Switcher | Transmission Lines Core 1 & 2 |
| Permit Recipient | Field Operator | Transmission Line Mechanic 1 & 2 |
| Lines and Structures Fundamentals | Power Technician Fundamentals | Permit Recipient Lines |
| | Power Technician Relays | Condition Assessor |
| | Power Technician DC Systems | Patrols |
| | Power Technician Instrument Transformers | Foundation Refurbishment |
| | Power Technician HV Insulation | Live Line Mechanic 1 & 2 |
| | SF6 Test and Top-up | Emergency Restoration Structures Year 1, 2, 3, 4 |
| | SF6 Degas to transport Pressure | Live Lines 1 & 2 |
| | SF6 Approved Filler Refresher | Vegetation Controller |
| | Substation Maintainer Core 1, 2 & 3 | Earth Potential Rise |
| | Substation Transformers | |
| | Substation Disconnectors | |
| | Cable Jointers <i>(not Grid Skills affiliated training)</i> | |


A woman with dark hair tied back, wearing a light-colored long-sleeved shirt, is seated in a control room. She is looking at a large array of computer monitors. The monitors display various data visualizations, including bar charts, line graphs, and technical diagrams. A stylized white fingerprint graphic is overlaid on the image, centered around the woman's head. The text 'Operational training' is written in a large, white, sans-serif font in the bottom left corner.


Operational training

TECHNICAL & OPERATIONAL TRAINING SNAPSHOT

2024 CALENDAR YEAR

TRAINER NUMBERS

3 (1 NCC trainer, 2 NGOC trainers) 

1 TTSE (training simulator) specialist 

NGOC AND NCC

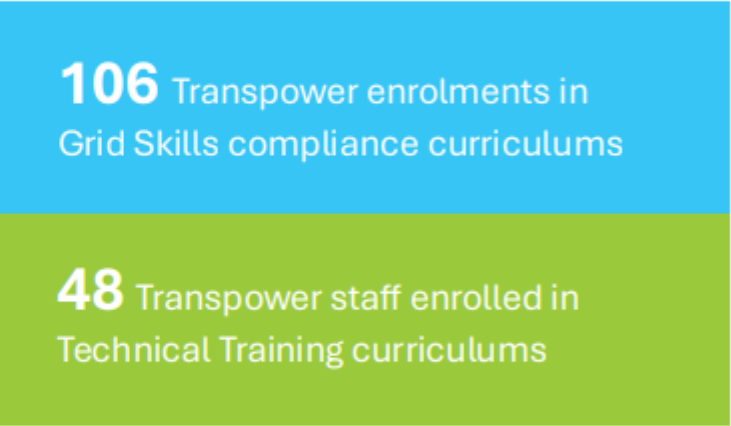
58 Learners attended an NCC or NGOC Team Training session (33 sessions held)

6 New NCC New Start learner registrations

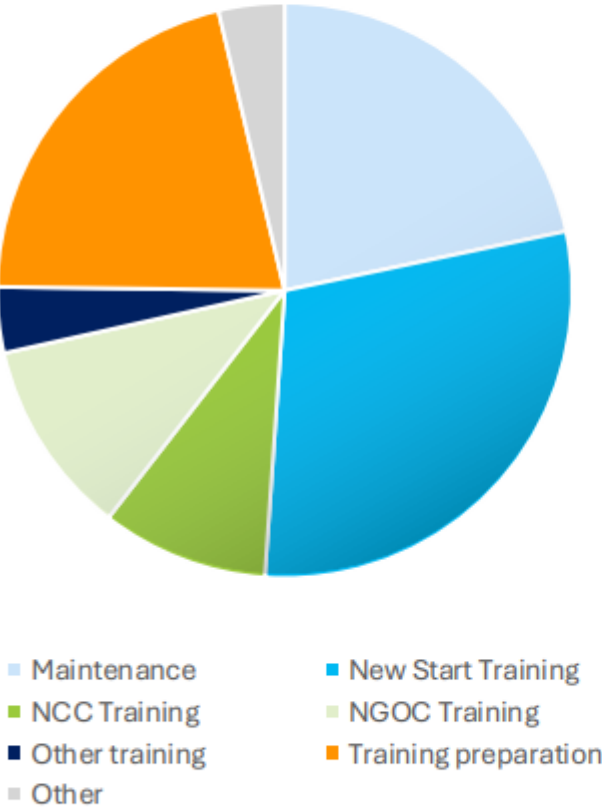
9 New NGOC New Start learner registrations

TRAINING SNAPSHOT

| | | |
|---|--|---|
| 598 Transpower learners accessed online training provided by Technical Training | 121 Transpower learners attended a Technical Training Session (eg. Team Training, PMP) | 632 Transpower learners attended either online or session training, or both |
|---|--|---|



SIMULATOR UTILISATION

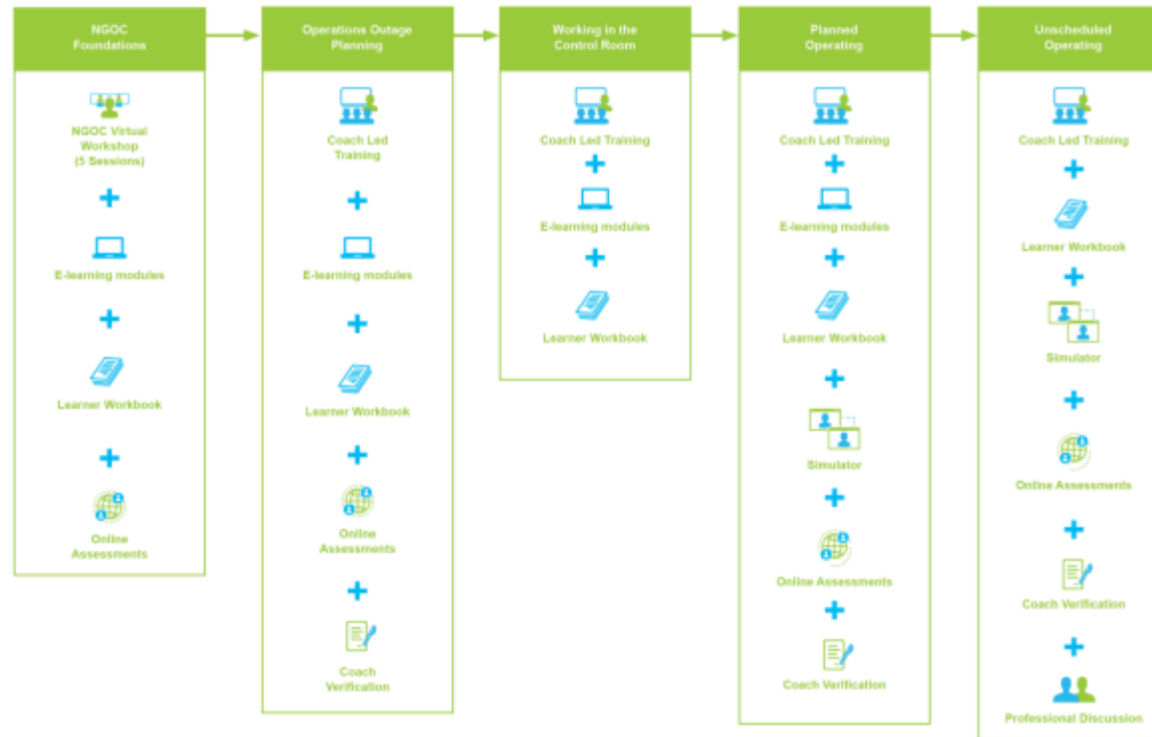


Delivery

Team training

- NGOC – 9 monthly cycle
- NCC – 6 monthly cycle

NGOC New Start Training Pathway





Our training delivery sites

Omaka training facility



Bunnythorpe training facility



Huntly training facility





Our trainers

Our trainers

Grid Skills training use experts from the industry who train via online webinars and face to face block courses.

Operational Training adopts a facilitative and coaching approach to training using SMEs, trainers and simulation.





Future thinking

Projected RCP4 uplift

Delivering on the projected uplift for RCP4 will require a substantial increase in staffing and resources to support the expanded work programme across both Transpower and our Service Providers. Achieving this will demand a significant shift in workforce capacity and capability, including recruitment in a highly competitive market for skilled professionals.

Key workforce and training considerations include:

- Investment in Transpower's training infrastructure to accommodate a greater volume of trainees
- Implementation of a workforce activation plan and the Sector Workforce Development Group
- Strategies to attract and retain a diverse workforce
- Adoption of flexible and responsive training delivery methods
- Recognition of prior learning and relevant experience
- Development of a talent pipeline through engagement with schools and polytechnics
- Strengthened partnerships with engineering schools










The Transpower Internship Experience

Internship Roles we have taken in the past

ENGINEERING:

-  Electrical / electronics
-  Mechatronics
-  Mechanical
-  Civil / structural
-  Engineering science
-  Computer (systems)
-  First year students

NON-ENGINEERING:

-  Computer science
-  Environmental SCIENCE
-  Physics
-  HR
-  + More!



We typically offer
around 25 summer
internships per year



The Transpower Graduate Experience

Graduate Program

Transpower graduates are part of a structured, supportive 2 year program designed to extend and challenge, while providing experience across a wide range of operations.

Graduates move through the programme in experiencing a range of experience in preparation for permanent work at Transpower.

Development Opportunities

- Rotations around a range of teams
- Accelerated pathway to becoming a chartered engineer (save 3 years)



Graduate roles

 Electrical / electronics

 Mechatronics

 Mechanical

 Civil / structural

 Engineering science

 Physics / Maths





Thank you

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