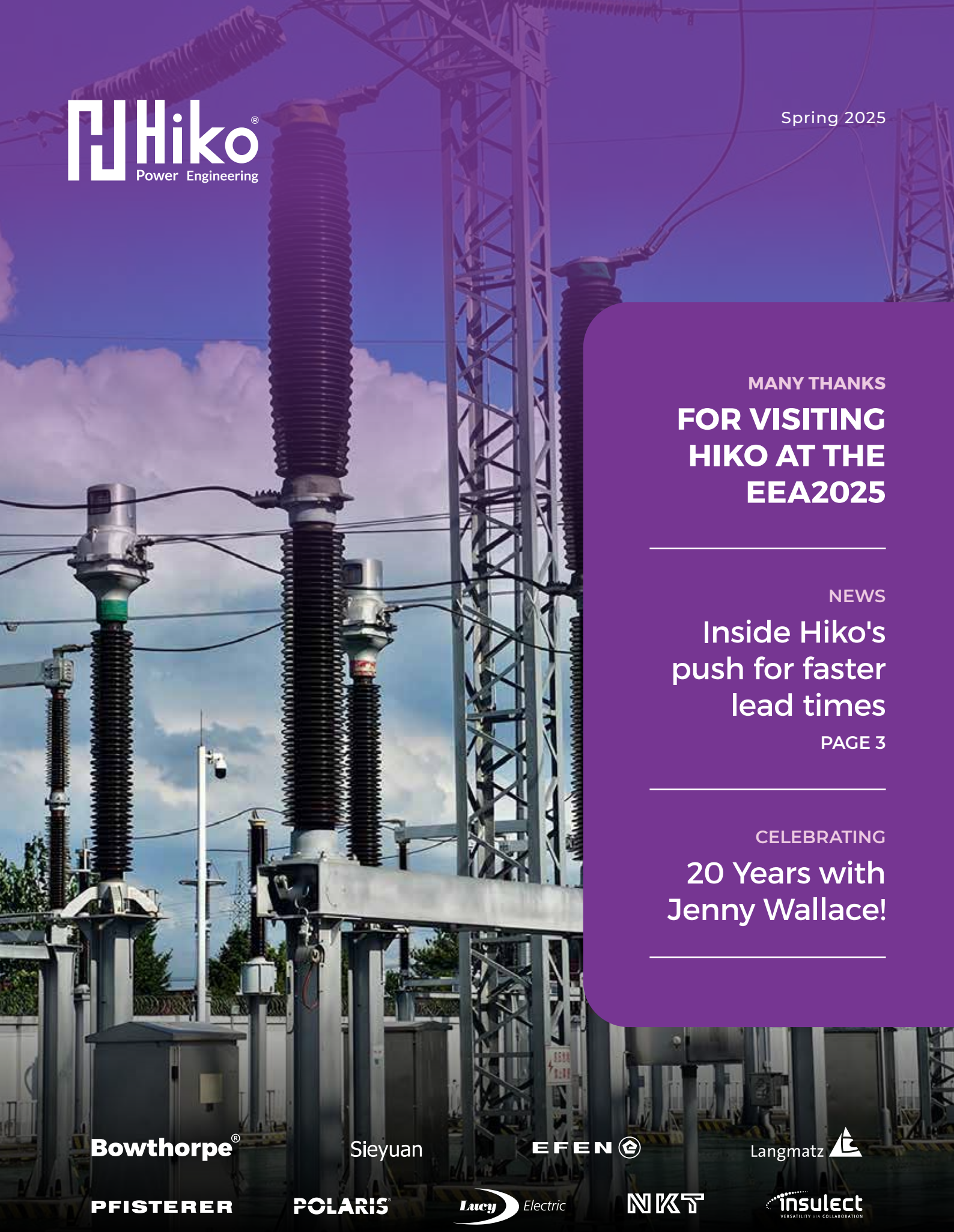
Hiko®
Power Engineering

Spring 2025



MANY THANKS

## FOR VISITING HIKO AT THE EEA2025

NEWS

## Inside Hiko's push for faster lead times

PAGE 3

CELEBRATING

## 20 Years with Jenny Wallace!

Bowthorpe® Sieyuan EFEN Langmatz

PFISTERER POLARIS Lucy Electric NKT insulect

VERSATILITY VIA COLLABORATION

Providing quality connection solutions alongside these leading global brands.

## Hiko Wall Mount Frames

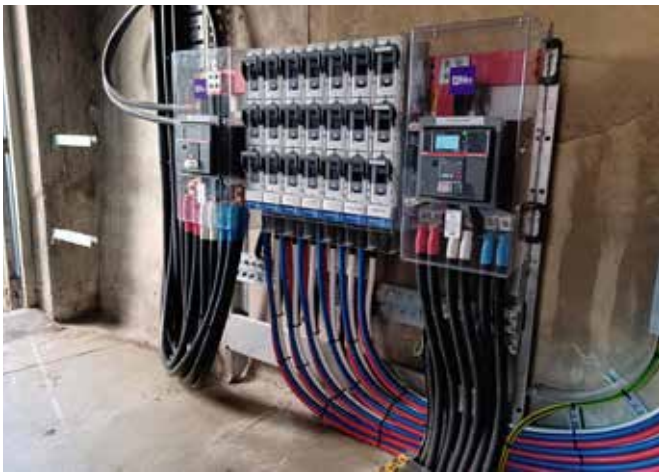
### Proudly engineered for New Zealand: Hiko's wall mount frames meet the market's evolving needs.

At Hiko Power, our engineers take real pride in designing solutions that directly address the challenges New Zealand's network operators face every day. The Hiko Wall Mount Frame range was developed in response to a clear industry need — for safer, more reliable, and easier-to-install low-voltage switchgear systems built for local conditions.

From the outset, the team focused on safety and compliance. Each Hiko frame is engineered and tested to AS/NZS 61439.1 and 61439.5, featuring fully insulated busbars, high-temperature polycarbonate covers, and EFEN vertical fuse-switch disconnects. Together, these components help reduce arc-flash risks and protect field technicians working in demanding environments. For Hiko's engineers, that commitment to safety isn't optional — it's fundamental.

Ease of installation was another top priority. By using precision laser-cut stainless steel components, the Hiko design achieves a balance of strength and lightness, allowing faster, consistent assembly across multiple configurations. Optional pre-wired panels with metering, MDIs, street-lighting, and monitoring systems make installation even more efficient.

Having the opportunity to engineer solutions in New Zealand for local problems reflects one of Hiko's mission's to always be anticipating operator requirements, uphold safety and quality, and deliver future-ready LV switchgear solutions for a modern, resilient power network.



**Hiko Wall Mount Frame**

# Celebrating **20 years** with Hiko

This month we proudly celebrate a remarkable milestone — Jenny Wallace's 20 years of service with Hiko Power Engineering.

Jenny first joined the Hiko team in the warehouse as a storesperson, where her strong work ethic and eye for detail quickly stood out. Over the years, she has grown into a key member of our operations team, now leading both our warehouse and customer service teams with dedication, efficiency, and a warm, steady hand.

Our customers often tell us how much they appreciate Jenny's friendly and proactive approach.

**— The Hiko Team**

# Hiko and Sieyuan

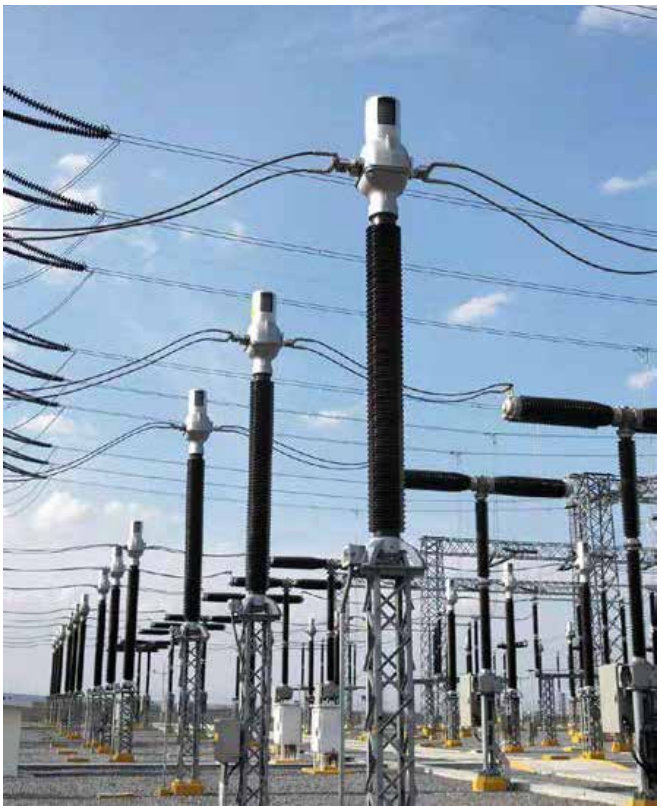
## Accelerating reliability in New Zealand's transmission future.

Hiko Power's new partnership with Sieyuan Electric is already delivering results across upcoming power transmission projects in New Zealand.

At the heart of these transmission projects are Sieyuan's Current Transformers and Capacitor Voltage Transformers, products that directly tackle long-standing issues in New Zealand's network infrastructure. While product integrity remains the foremost selection criterion for these products, Hiko's partnership with Sieyuan introduces a critical advantage: speed. By integrating supply chains and manufacturing schedules, Hiko is demonstrating faster lead times, enabling network operators to advance vital grid renewal projects without delay.

In instances where New Zealand substations still rely on ageing, oil-immersed transformers prone to leaks and corrosion, Sieyuan's CT range provides a fully sealed, corrosion-resistant design that's built to last in New Zealand's coastal and high-humidity environments. Their maintenance-free construction and robust insulation deliver consistent accuracy and protection performance, even under the demanding fault conditions typical of the national grid.

Sieyuan's Capacitor Voltage Transformer brings proven damping technology that eliminates ferromagnetic resonance — a persistent cause of transient overvoltages and false relay trips. Its solid cast structure also enhances seismic resilience, meeting the needs of operators in one of the world's most seismically active power systems.



**Current Transformers**

**Capacity Voltage Transformers**

Hiko's partnership with Sieyuan is a game-changer for New Zealand — delivering complex, high-integrity power products faster without compromising on safety or quality. This means essential grid upgrades can move ahead at pace.

# Lucy Electric LV Network Monitoring

## Illuminating New Zealand's LV Grid: Hiko + Lucy Electric deliver real visibility and voltage assurance.

New Zealand's distribution networks are under pressure. As some Network Operators have acknowledged that their current view of the LV grid is limited; and many constraints and voltage issues are only discovered reactively from customer complaints or after the fact. At the same time, Transpower and the Electricity Authority are actively planning for a future grid characterised by bi-directional flows, tighter voltage and quality constraints, and increasing decentralised generation.

In response, Hiko Power has teamed with Lucy Electric to bring a robust LV Network Monitoring solution to New Zealand with Northpower and Top Energy being examples of clients who have adopted this technology.

The system combines high-precision flexible AC current sensors and MCU metrology/communications units, designed to operate to international metrology and EMC standards, providing continuous measurement of voltage, current, harmonics, imbalance, and power quality metrics. These readings stream securely into Lucy's cloud analytics platform, giving network operators a window into LV behaviour in near real time.

By deploying this system, EDBs gain the ability to proactively detect voltage deviations, compliance breaches, or network stress before they cause customer impact. In essence, Hiko + Lucy help bridge the visibility gap that Vector has identified and support the transition Transpower anticipates—making the LV network smart, measurable, and manageable.

# Smart Design, Safe Streets

## Why Hiko's polycarbonate pillars are leading the way.

Hiko Power's Distribution Pillars and Link Pillars define safety and flexibility across New Zealand's low-voltage networks. We find network operators and councils choose these fully insulated, non-metallic cabinets because they are engineered for the modern street environment—where safety, durability, and appearance all matter.

In public spaces where low-voltage assets sit just metres from pedestrians and vehicles, safety is paramount. Unlike traditional steel or aluminium pillars, Hiko's polycarbonate cabinets cannot become live in the event of impact damage, protecting both operators and the public. Their robust Langmatz construction meets AS/NZS 61439-5 standards and has been proven in service for more than 25 years in Europe, Australia, and New Zealand.

Another major reason customers are switching to Hiko is choice and compliance. Many councils now regulate the footprint and visual impact of street furniture. Hiko's ability to manufacture to precise size specifications—while offering any colour to match local design guidelines—has become a decisive advantage in urban and suburban installations.

The pillars' modular two-piece design also simplifies installation and inspection, reducing maintenance time. Built-in Weber EFEN double-break disconnects provide secure, reliable isolation, while IP-rated weather and UV resistance ensure performance in New Zealand's coastal and high-UV environments.

We are proud that Hiko's Distribution and Link Pillars deliver the safety, compliance, and flexibility that today's networks demand and giving us a chance to contribute in protecting people, assets, and aesthetics across New Zealand's streetscapes.

**Installed Langmatz Pillar Box, Queenstown**

> Our Distribution and Link Pillars are in line with to AS/NZS 61439 standards and independently verified for safety and durability. If you'd like to understand more about our cabinet testing methods or compliance details, give me a call — I'm always happy to walk through the specs with you.

**Mike Scott,**
**Hiko Power Engineering,**
**South Island Account Manager**

## Hiko U-Pillar Underground Service Connection Boxes

### A patented step forward for underground safety.

Hiko Power's patented U-Pillar Underground Service Connection Box (NZ Patent No. 813092) delivers a breakthrough in network safety and reliability. Designed for 63 A – 100 A service fuses and 160 A,Point of Supply (POS) disconnect, the U-Pillar replaces exposed boundary boxes with a fully sealed underground solution that keeps all live terminations safely out of reach.

Its patented air-filled "water-bell" chamber guards against water ingress, protecting fusegear from moisture even in flood & tidal conditions—solving one of the industry's most persistent causes of in-service failure. Meanwhile, its plug-and-play, factory-tested design arrives pre-terminated and water-blocked, ensuring fast, consistent installation with no on-site assembly or quality risk.

Built with a reinforced, Class B-rated lid and UV-stabilised, chemical-resistant materials, the U-Pillar represents a durable, low-maintenance solution. This patent confirms Hiko Power's leadership in developing safer, smarter underground connections for New Zealand's electrical networks.

**U-Pillar Underground Service Connection Box**

## Pfisterer ISICOMPACT LV Branch Joints

### Faster, Safer LV Connections with Pfisterer ISICOMPACT.

Live low-voltage work has long presented safety and reliability challenges for New Zealand's network operators. Traditional connectors require insulation to be stripped and multiple bolts tightened on live conductors—introducing risk, inconsistency, and longer installation times.

Hiko Power has been installing Pfisterer ISICOMPACT LV Branch Joints to solve this issue with a single shear-bolt design that guarantees the correct torque every time. Fully sheathed conductors are clamped securely within a moulded plastic body, eliminating exposure to live parts and significantly reducing installation risk and duration.

With no exposed live parts and less risk to crews, these connectors are faster and safer to install for LV work.

Tested internationally, these have proved perfect for New Zealand's diverse network cables, the L30 and L40 connectors suit both aluminium and copper conductors from 10 mm² to 240 mm², ensuring compatibility across legacy and modern assets. Encased in polycarbonate shells filled with polyurethane or polybutadiene resin, the system meets international electrical safety and material standards for long-term durability.

**Pfisterer ISICOMPACT LV Branch Joint**

# Sectionalising Smarts

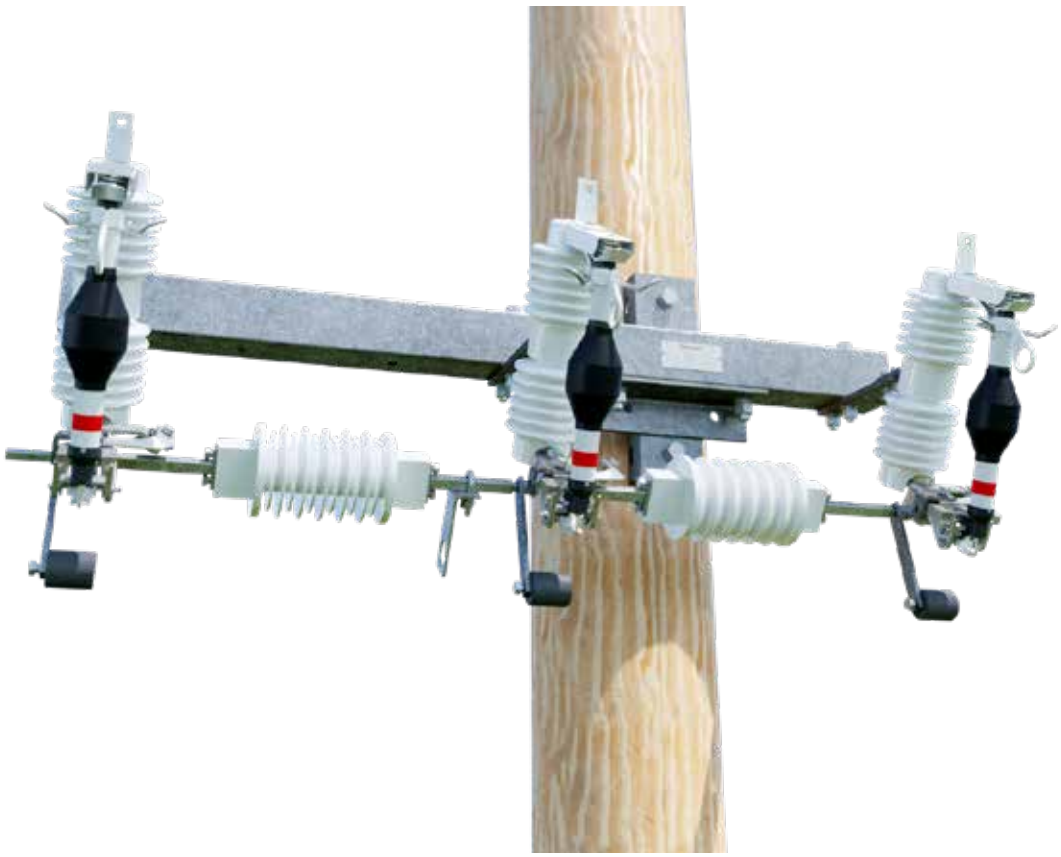
## Insulect's Sectionaliser is making a difference.

Insulect's Sectrionaliser can be found in modern distribution networks throughout the world, dealing with the constant challenge of isolating faulted segments quickly and reliably. The Insulect Electronic Sectionaliser is increasingly proving its worth across networks in Australia, Asia, and beyond—delivering tangible improvements in reliability, safety and operational efficiency.

Hiko Power is seeing growing interest in New Zeland with Insulect's sectionaliser as network operators look for smarter ways to reduce unnecessary outages and isolate faults more precisely. With short lead times for supply and a strong track record across Australia, this well-proven technology offers New Zealand utilities a reliable, field-tested solution. In remote and rural overhead networks, the sectionaliser helps avoid full feeder shutdowns by tracking fault counts and timing, then opening only the section where the issue occurs—keeping the rest of the feeder energised. The result: fewer customer interruptions and faster restoration.

The robustness of Insulect's design—developed for harsh environments—and its minimal maintenance requirement are frequently cited by operators as major advantages. Hiko partnered with Insulect because it was known in Australia for delivering tough, reliable network hardware with minimal maintenance requirement

For Hiko Power, Insulect represents another example of how we bring the best of the world's suppliers to New Zealand's electricity distribution market with shorter and shorter lead times. Acting as the crucial link between global innovation and local application, Hiko ensures our customers gain proven, practical solutions that strengthen network resilience.



**Sectionalisers**

# Hiko's Overhead Strength

## How Hiko's overhead fittings strengthen New Zealand's power networks.

New Zealand's power networks depend on thousands of secure, durable connections to keep electricity flowing safely across long, exposed spans. Hiko Power's extensive stock of overhead line fittings—including insulation piercing connectors (IPCs), parallel groove (PG) clamps, bimetallic tap-off clamps, and Bowthorpe HD Series Line Taps—helps network operators address some of their most persistent field challenges.

Reliable, low-resistance connections between dissimilar conductors are critical across networks that mix aluminium, ACSR, and copper lines from different eras. Hiko's bimetallic PG and tap-off clamps, made from corrosion-resistant aluminium alloys and CuNi Si copper components, prevent galvanic corrosion and ensure long-term electrical integrity.

For tap-off and live-line connections, Hiko's IPCs with shear bolts provide the correct contact pressure automatically—delivering safe, fast, and reliable installations without stripping insulation, ideal for rural and hard-to-access sites.

Complementing these modern fittings, Bowthorpe HD Series Line Taps—proudly made in New Zealand since 1952—remain a trusted, cost-effective solution for overhead joints. Manufactured from New Zealand brass extrusions with strict quality control, they offer robust performance, easy installation, and a proven record of reliability across all conductor types and sizes.

Hiko is proud to be combining proven local manufacturing with globally trusted technology to play its part, in ensuring New Zealand's networks remain strong, efficient, and ready for the future.

**Insulation Piercing Connectors**

**Bimetallic Parallel Groove Clamps**

## Hiko is proud to be certified to the following ISO standards:

Telarc. Registered cert TM
Environment
ISO 14001

Telarc. Registered cert TM
Health & Safety
ISO 45001

Telarc. Registered cert TM
Quality
ISO 9001

Telarc. Integrated Systems Certification cert TM
ISO 9001
ISO 14001
ISO 45001

**Bowthorpe HD11**

## Keeping Moisture Out

### NKT heat-shrink trifurcating kits protect critical cable points.

Moisture ingress at cable breakouts remains one of the most common and costly causes of network faults. Hiko's partner NKT tackles this challenge with its Heat-shrink Trifurcating Kits, designed to seal and insulate three-core cables at the breakout point.

Each kit uses heat-shrinkable insulating tubing and a breakout boot to form a tight, durable seal, while optional hot-melt mastic provides extra protection in outdoor or high-humidity environments. Built from proven materials and tested for 11–33 kV applications, our clients have seen NKT kits ensure long-term reliability and protection against New Zealand's toughest conditions— our job is to keep the keep the moisture, out so you can keep the power flowing.

**Trifurcating Kit Installation**

## Keeping Switchgear Safe

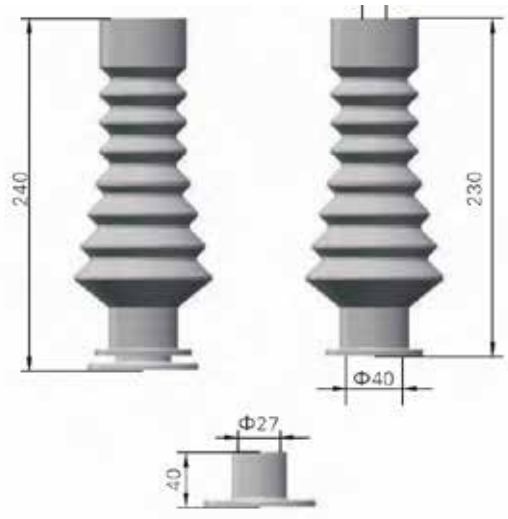
### Woer's cold applied insulation boot combats humidity risks.

In New Zealand's more humid and coastal environments, switchgear and transformer flashovers caused by moisture and airborne contamination are a persistent challenge. Hiko's partner Woer provides an effective solution with the WCAB Cold Applied Insulation Boot.

Moulded from high-grade silicone rubber, the boot fits securely over cable lugs and bushings, improving phase-to-phase and phase-to-ground insulation. Its excellent tracking and erosion resistance prevents flashover even under high humidity, while installation is fast and tool-free — connections can be energised immediately.

> Crews love them because they're fast to fit, reusable, and immediately energisable. For sites battling moisture and corrosion, that's a game changer.

Compact, reusable, and maintenance-free, Woer's insulation boots help operators maintain safer, more reliable networks in New Zealand's demanding conditions.




**Cold Applied Insulation Boot Dimensions**

# Pfisterer CONNEX Separable Connector

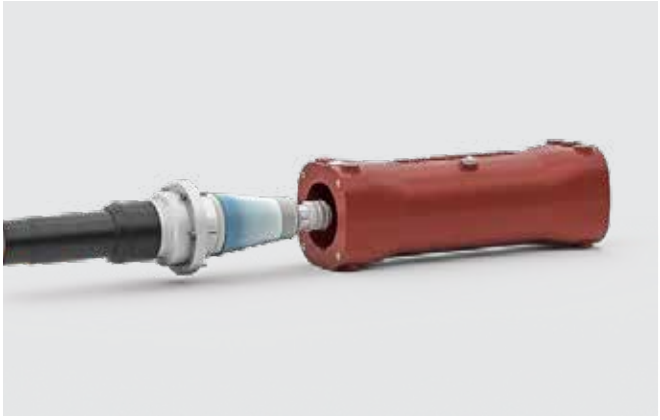
## Faster, safer connections for New Zealand's high-voltage networks.

Across New Zealand, many substations still rely on oil- or gas-insulated connections that require draining, de-gassing, and extensive safety procedures. These time-consuming processes extend outage durations and demand highly specialised crews—posing challenges for smaller utilities managing both HV and LV assets.

In partnership with Pfisterer, Hiko Power delivers a modern alternative: the CONNEX Separable Connector and Pluggable Joint system. This dry-type, fully pluggable technology—rated up to 550 kV—eliminates the need for oil or $SF_6$ gas work, cutting installation and maintenance times while greatly improving operator safety. Cables and transformers can be disconnected and reconnected in minutes, enabling rapid restoration, flexible grid expansion, and easy integration of mobile substations or modular systems.

Pluggable HV Joints complement the CONNEX range with a cast-resin design suitable for both temporary and permanent applications. Preassembled and quick to fit, they offer high electrical strength and compatibility with various conductor materials and cross-sections—from 12 to 550 kV. Used on land or at sea, they are ideal for extending cable runs, creating terminations, or forming T- and elbow-joints for compact substation layouts. With no liquid or gas insulation medium, these joints offer maximum flexibility, modularity, and long-term reliability—even under demanding conditions.

By removing complexity, risk, and downtime, Hiko Power and Pfisterer's CONNEX and Pluggable Joint solutions are committed to connection safety and speed—keeping New Zealand's power networks efficient, resilient, and ready for the future.



> Being able to disconnect and reconnect a transformer in minutes — without draining oil or handling gas — changes everything for crews working under pressure. And with Hiko these solutions are reaching the field sooner than with anyone else.

**Pfisterer CONNEX Connector**

# Bridging the Gap

## NKT Oil-to-XLPE transition joints are available through Hiko Power.

As New Zealand's underground networks evolve, many operators face the challenge of connecting legacy oil-filled cables to modern XLPE systems. These ageing oil-based assets, common in the large New Zealand cities and other regional centres, still play vital roles but must integrate seamlessly with new infrastructure.

Hiko Power, in partnership with NKT, offers Oil-to-XLPE Transition Joints — globally proven technology designed precisely for this purpose. The joint provides a safe, reliable interface between old and new cable systems, allowing utilities to modernise progressively without full-circuit replacements or extended outages.

An additional advantage for New Zealand network operators is Hiko Power's ability to supply these specialised joints with significantly shorter lead times than many competitors. This responsiveness allows utilities to act quickly on maintenance and upgrade projects, reducing downtime and keeping essential programmes on schedule.

Equally important, NKT's hermetically sealed design eliminates oil leakage, ensuring full environmental containment and compliance with New Zealand's strict environmental standards. Backed by NKT's global expertise in high-voltage systems and supported locally by Hiko's responsive supply chain, these transition joints are proving a practical solution for safe, sustainable, and efficient network modernisation in New Zealand

> Hiko's strength is not just in choosing high-integrity grid components — it's in having them ready when projects demand them, with a supply agility that gently outpaces the rest.

**XLPE to LPOF Transition Joints**

# Smart Connections for Safer Networks

## NKT screened elbow connectors now available from Hiko Power.

As New Zealand's networks grow more compact and safety-conscious, operators face two familiar challenges — maintaining safe access to live switchgear and ensuring insulation reliability in humid, confined environments. Hiko Power's partner NKT, a global leader in cable accessories, provides a proven solution with its Screened Elbow Connectors, now widely adopted across medium-voltage systems worldwide.

Safety risks from exposed live connections are eliminated through the fully screened, earthed design, making the connector touch-safe and compliant with modern network safety standards. This gives field technicians confidence when working in ring main units, transformers, and enclosed switchgear.

Insufficient insulation and flashover in compact switchgear are equally common in New Zealand's coastal and high-humidity conditions. NKT's silicone rubber construction, compliant with EN 50180/50181 Type C standards, provides exceptional corona, tracking, and erosion resistance — ensuring long-term insulation performance and reliability.

**NKT Screened Elbow Connectors Installed**

With over 50 years of proven field experience, NKT's screened connectors combine robust design, global testing, and local availability through Hiko Power. Together, they deliver safe, maintenance-free, and high-performing medium-voltage connections, tailored to the demanding environments of New Zealand's power distribution network.

# Thank you for visiting Hiko at the EEA2025

A huge thank you to everyone involved in organising the EEA 2025 Conference. Your hard work and professionalism brought together an outstanding group of industry experts, creating valuable connections and conversations. It was a fantastic event for Hiko Power and our key partners — your efforts truly made it a success.

**— Martin Hamer, Board Chair**