

# Capability Statement & Projects

Services provided by Xnovest Africa and its  
subsidiaries in various sectors



*“taking pride in what we do”*  
Local. Experienced. Diverse.



# Company Structure



*Different divisions under one roof.  
Various expertise under one roof.  
And that, makes all the difference.*

- Established: 2012
- Consulting engineering specialising in energy, electrical, mechanical
- Servicing various sectors: Mining, industrial, commercial, and agricultural

## ~ proud divisions ~

- Established: 2020
- The need was identified to obtain inhouse qualified electrical teams
- To ensure quality, consistency and control towards projects implemented by Xnovest Africa. Turnkey projects made possible.



- Various electrical teams.
- 24/7 standby and assistance.
- Backed by engineering department.
- Registered with DOL and CIDB.
- Industrial, commercial, residential & agricultural
- Qualified, professional and reliable.

## ~ proud products ~

- Established: 2023
- Containerised energy solutions.
- Designed, developed, manufactured, maintained and supported in-house.
- Power Centre Light was developed for remote site establishment, laboratories, field offices and labs, etc.



# Resources & Qualifications

## ▶ Experience in various sectors:

- ▶ Mining
- ▶ Industrial
- ▶ Commercial
- ▶ Residential
- ▶ Government Bodies

## ▶ Performed in various countries:

- ▶ South Africa
- ▶ Lesotho
- ▶ Swaziland
- ▶ Namibia
- ▶ Botswana
- ▶ Italy
- ▶ Antarctica

## ▶ Resources include:

### ▶ Senior Engineers

- ▶ Mechanical
- ▶ Electrical & Electronic
- ▶ B.Eng & M.Eng

### ▶ Additional Qualifications / Registrations

- ▶ Professional Engineer (ECSA)
- ▶ Certified Energy Manager
- ▶ Certified Energy Auditor
- ▶ Certified Measurement & Verification Professional
- ▶ Project Management Professional
- ▶ Technical Auditor for Sanas
- ▶ ISO - Various

### ▶ Qualified Electricians and Fitter and Turner.

- ▶ More than 60 years combined experience
- ▶ Various industry expert consultants

# Equipment

Data and measurement instruments are of extreme importance. Without the correct, accurate and reliable equipment, the assessment is not worth the data and the answers needed won't be reliable. Xnovest Africa has extensive measuring equipment from leading trusted brands, including but not limited to:

- ▶ Power analyzers - portable loggers and handheld
- ▶ Electrical loggers for profile measurements
- ▶ Environmental, lighting and air quality
- ▶ Thermal
- ▶ Inspection
- ▶ Design (Software)

The logo for ONSET, featuring the word "ONSET" in a bold, blue, sans-serif font with a registered trademark symbol.The logo for FLUKE, featuring the word "FLUKE" in a bold, black, sans-serif font on a yellow rectangular background.The logo for HOB0 Data Loggers, featuring the word "HOB0" in a bold, blue, sans-serif font with a registered trademark symbol, and "Data Loggers" in a smaller, blue, sans-serif font below it.The logo for FLIR, featuring a blue diamond shape with a white "F" inside, followed by the word "FLIR" in a bold, blue, sans-serif font with a registered trademark symbol.The logo for EXTECH INSTRUMENTS, featuring the word "EXTECH" in a bold, green, sans-serif font with a registered trademark symbol, and "INSTRUMENTS" in a smaller, green, sans-serif font below it.The logo for SOLIDWORKS, featuring a red stylized "S" icon followed by the word "SOLIDWORKS" in a red, sans-serif font.The logo for BOSCH, featuring a circular icon with a stylized "H" inside, followed by the word "BOSCH" in a bold, red, sans-serif font.

Xnovest Africa was established in 2012, primarily as consulting engineers in the energy sector. We quickly grew into various other sectors with great success, however, we still needed to maintain the quality of our work as we began executing more implementation of projects. Subcontracting the electrical work was not good enough. This resulted in establishing XA Electrico in 2020 - our dedicated inhouse electrical teams. We now have the capacity to consult, design and implement projects from one office while ensuring the quality and standard of work is maintained.

# Flagship Projects & Services

*“taking pride in what we do”*

Local. Experienced. Diverse.

We learned that the symbiosis of the two groups provided the added benefit of design vs reality - and that made all the difference. This unique collaboration between engineers and electricians provides us with the capability to successfully implement and complete any project - and we are proud of it!

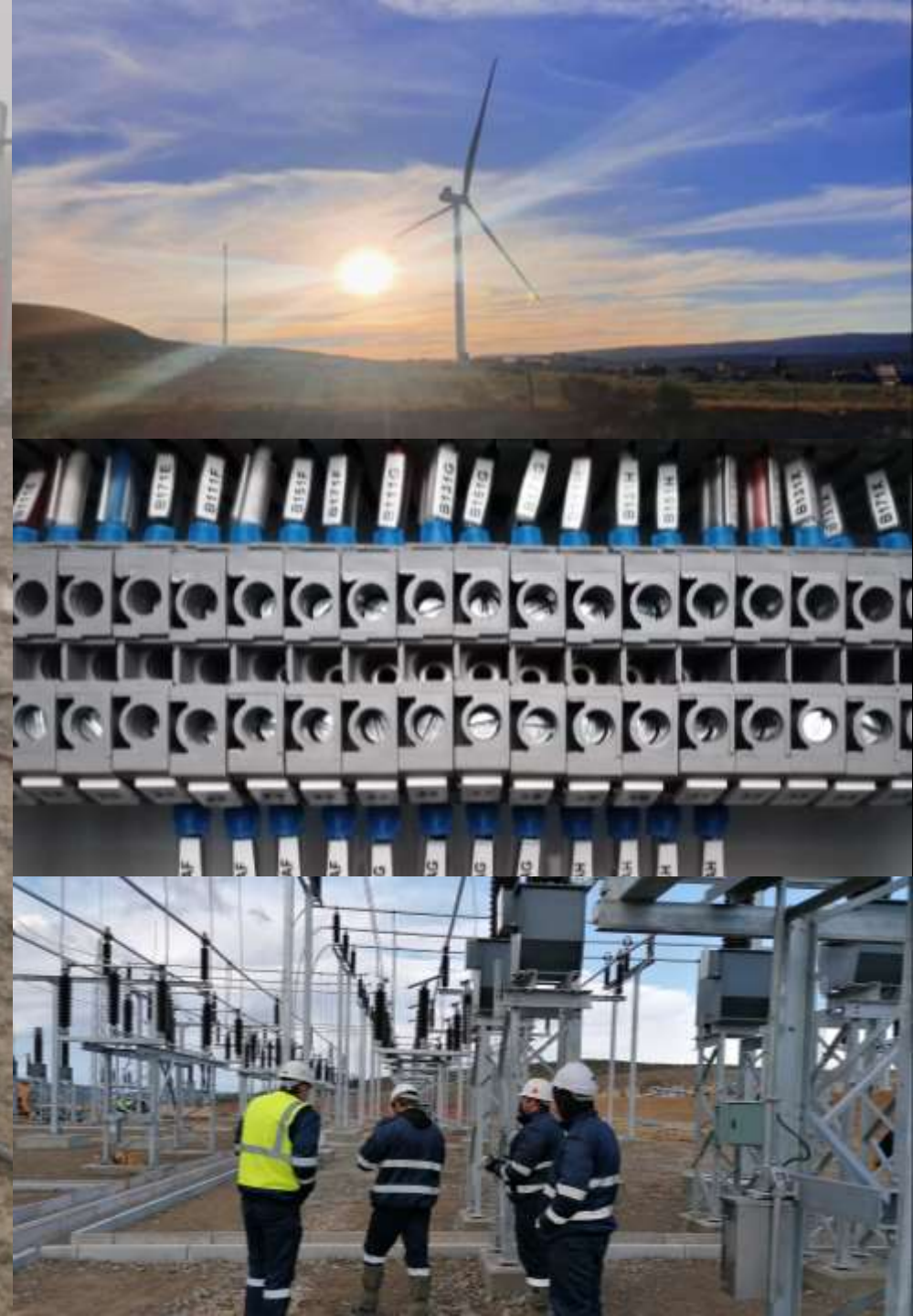


## Karusa & Soetwater Windfarms

Eskom substations - 294MW wind power

A WBHO / Enel project development. Eskom substations:  
Monitoring and Control Cables, AC and DC cabling,  
terminations and testing at:

- Karusa Windfarm (147MW)
- Soetwater Windfarm (147MW)



# Samancor Chrome Mining

Energy audits, assessments & management review:

- ▶ 6 underground mines
- ▶ 6 chrome smelters





# Power Centre - Agricultural

The 1<sup>st</sup> Power Centre  
Potato Wash and Packaging Plant

- ▶ 90kVA, upgradable to 135kVA
- ▶ 120 kWh backup
- ▶ 60kW peak



# Renewable Integration & Substation

## Integration of renewable sources - Solar & Wind

- ▶ 195kVA Inverting Capability
- ▶ 54kWp Ground Mount
- ▶ 24kWp Rooftop Solar
- ▶ 20kWp Wind
- ▶ 160kVA Diesel Generator
- ▶ 200kVA Utility





# Small Scale Renewable Projects

- Various renewable projects implemented
- Residential, commercial, industrial, agricultural



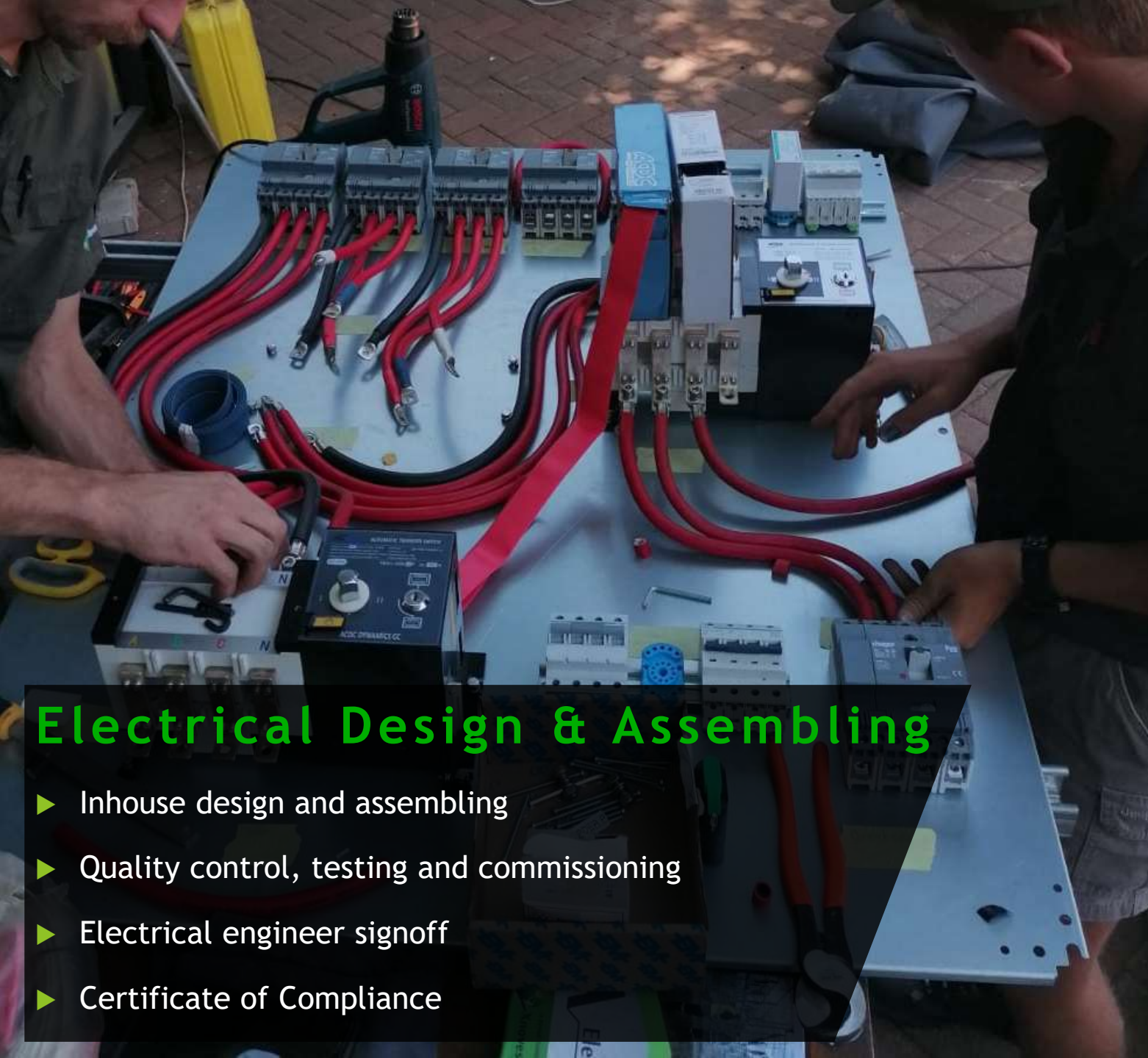
## Industrial Plant Upgrades

Upgraded all cable hanger and management within Tiger Brands facility



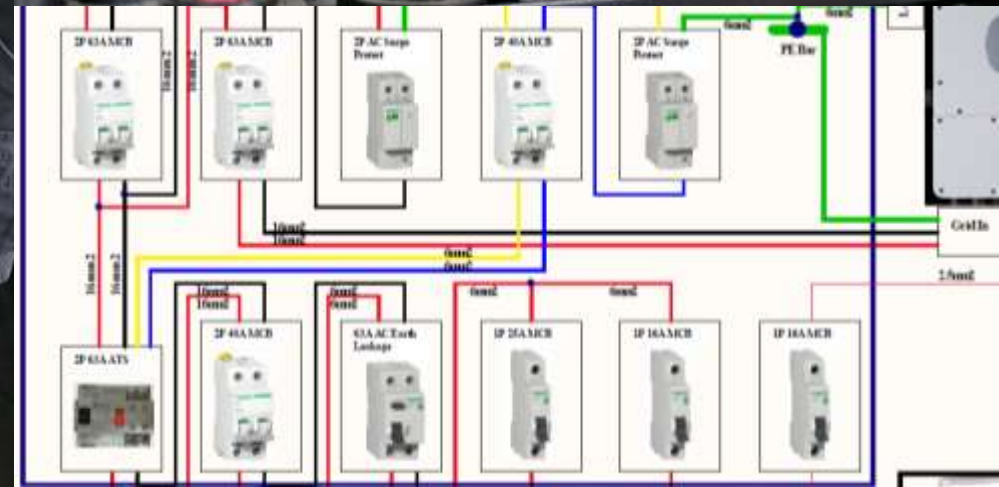
# Construction Projects

Various electrical works completed during construction phases



## Electrical Design & Assembling

- ▶ Inhouse design and assembling
- ▶ Quality control, testing and commissioning
- ▶ Electrical engineer signoff
- ▶ Certificate of Compliance





## Electrical Remedial Work

Electrical remedial work towards COC issuance of more than 200 panels from 2022 within the industrial sector.

 Xnovest Africa

# Inhouse Mechanical Design and CAD



# Inhouse Manufacturing & Implementation



# Measurement & Verification (M&V)

- ▶ Experience in more than 40 M&V projects, including Eskom EEDSM, Municipal EEDSM and external M&V Projects. This includes *M&V Plan & Methodology, Baseline Development, Performance Assessment, Performance Tracking and Performance Certification*. The technologies and projects M&V'ed includes, but is not limited to:
    - ▶ Mining, Industrial, commercial, residential and agricultural sectors
    - ▶ Industrial Heat Pumps, renewable PV, ventilation fans (surface & underground), pumping, three-chamber pumping, compressed air, lighting, hvac, Residential Load Management, fridge plants, waste heat recovery, VSD's, motor efficiency, boilers, co-gen and tri-gen, etc.
  - ▶ ISO 50010 Retrofit isolation - key and all parameters & whole buildings approaches
  - ▶ Municipal buildings, lighting, street lighting and pump stations
- More than 60MW of savings has been verified which resulted in almost 120 GWh energy saved.





## Fire & Risk Assessments

Fire compliance and fire risk assessments were completed for more than 50 buildings.

These included mostly commercial buildings, manufacturing, a hospital group and various foreign embassies in Africa.



## Building Condition Assessments

Xnovest Africa completed condition assessments on 28 sites (mostly multi building complexes, 50+ buildings) on buildings within the commercial, industrial, retail and manufacturing sectors pertaining to:

- ▶ Wet services (all water and plumbing)
- ▶ Electrical Services
- ▶ Mechanical Services
- ▶ Fire Compliance
- ▶ Fire Risk
- ▶ Fire Condition and Quality of installation

Two International Embassies were also assessed based on fire compliance, risk and condition / quality of installation. One situated in South Africa and the other in Zimbabwe.

Xnovest Africa also conducted assessments for a private hospital group at 10 of their hospitals in Gauteng, North-West and Limpopo. The assessment included fire compliance, risk and condition / quality of installations.

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