SOLUTIONS FOR RENEWABLE ENERGY: WIND AND SOLAR

TURNKEY PROJECTS

Specification, supply and installation

ekabel

www.ekabel.net

ABOUT US

We are a team of action-oriented professionals with a vision of future progress.

We are passionate about designing solutions that meet the needs of our customers.

WHERE ARE WE?

Our offices are located in Latin America, the United States, Australia, and Spain, Ekabel has consolidated its rapid expansion process through our participation in important and challenging projects.

WHAT DO WE DO?

Based on expert knowledge, we design and integrate electrical, telecommunications and automation systems that optimize results for our clients and protect their most valuable assets.

Given the diverse needs of the renewable industry, E'kabel provides the tools for a complete solution.

Let's talk

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RENEWABLE

Solutions for the renewable industry

SOLUTIONS PRESENT THROUGHOUT THE WIND AND SOLAR INDUSTRY

Fossil fuel consumption is one of the causes of global warming, coupled with the exponential increase in energy demand each year, which generates the need to find new sources of energy. In favor of working for a more sustainable future, these energy sources must not only be friendlier to the environment, but also be renewable over time.

E'kabel wind and solar solutions help meet the performance requirements expected by our customers. We incorporate solutions in the energy collection stages (wind and solar parks), as well as in the energy conversion stage (solar parks).

As an added value, we develop integral turnkey projects for solar and wind systems in medium voltage, which covers the entire process of: technical specification appropriate to the project, timely supply of products, and the installation of wiring installation (civil, cable routing, SAT and VLF testing).

In addition, while the renewable industry constantly redefines itself, E’kabel is committed to presenting the most recent technological innovations while we accompany you at all stages of your project, all this under a common framework of quality management.

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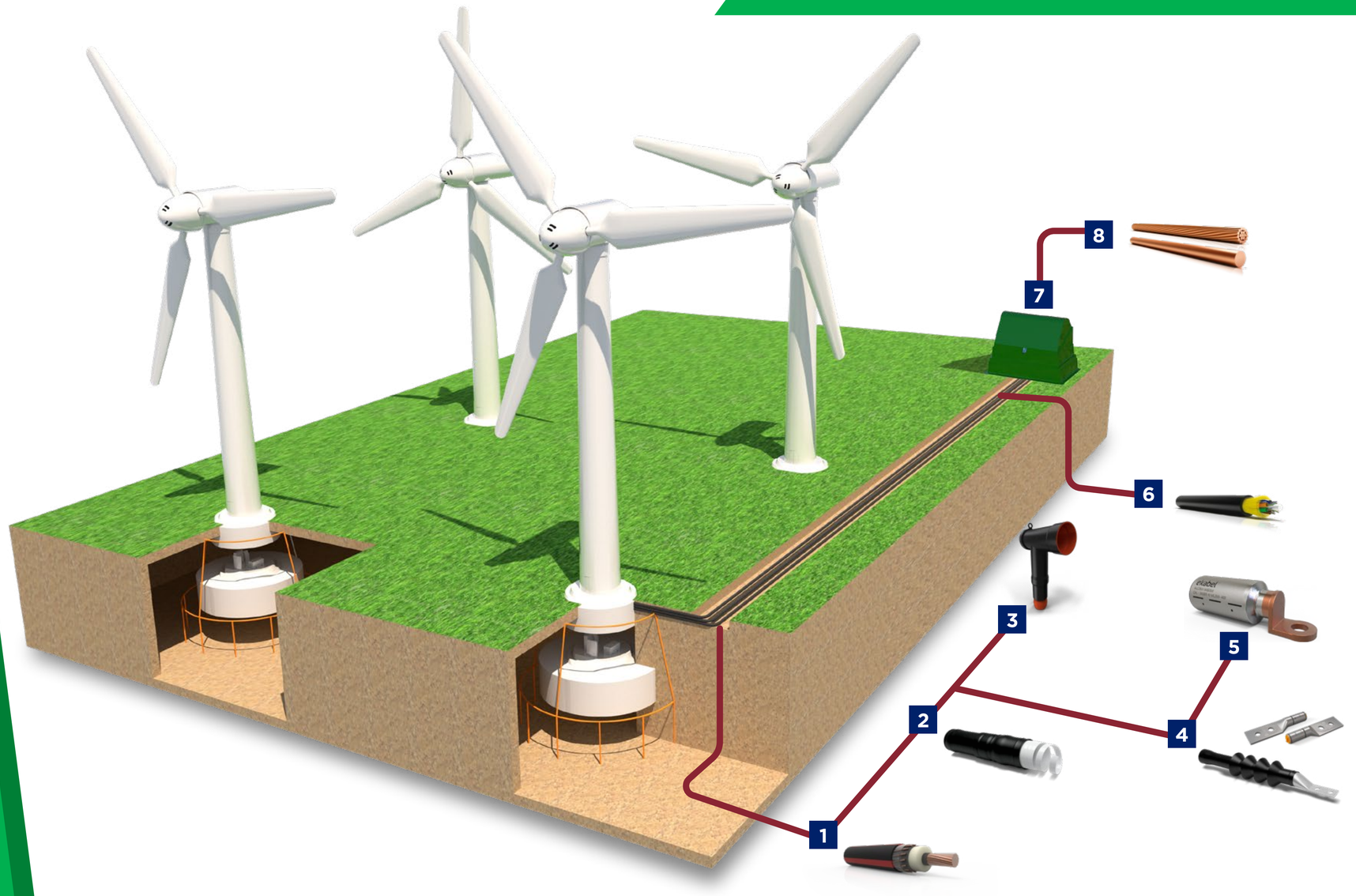
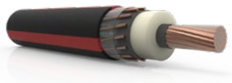
WIND AND SOLAR SOLUTIONS

WIND POWER
SOLUTIONS

1. POWER CABLE MV
2. MV JOINT & COMPRESSION CONNECTOR
3. SEPARABLE CONNECTOR
4. MV TERMINATION & LUG
5. BI-METALLIC CONNECTOR
6. FIBER OPTIC CABLE
7. COMBINER BOX MV
8. GROUNDING SYSTEM



WIND POWER
SOLUTIONS



1 MV POWER CABLE

Concentric neutral cables are used as collector feeders for PV systems in order to transmit the generated power to the grid.

2 MV JOINT & COMPRESSION CONNECTOR

Due to its polymeric compound with memory effect, cold shrinkable medium voltage joints are the perfect choice for economical and time-saving cable jointing. They are provided with a bi-metallic compression connector.

3 SEPARABLE CONNECTOR

Separable connectors are a medium voltage cable termination alternative when very compact installation space is desired, like in a wind farm's junction box or in the nacelle.

4 MV TERMINATION & LUG

Used as strain relief for connection of the electric cable. ... thermo terminals contractile for tension media are affected to ensure insulation and cable sealing in a multiconductor with armor or cables with cover and at the conductor terminals.

5 BI-METALLIC CONNECTOR

Bi-metallic terminal connectors are used to electrically connect the cable conductor, either in copper or aluminum, to a equipment in medium voltage.

6 FIBER OPTIC CABLE

Fiber optic cables are suitable for communications systems critical to wind farm with faster data transmission rates and invulnerability against electromagnetic interference requirements.

7 MV SECTIONALIZING CABINETS

Junction boxes in wind farms offer multiple radial circuit connections in one protective housing for better circuit collector feeder management.

8 GROUNDING SYSTEM

Copper grounding rods, grounding copper conductors and copper compression connectors along with exothermic welding offer the best option to electrically ground your system for safe operation.

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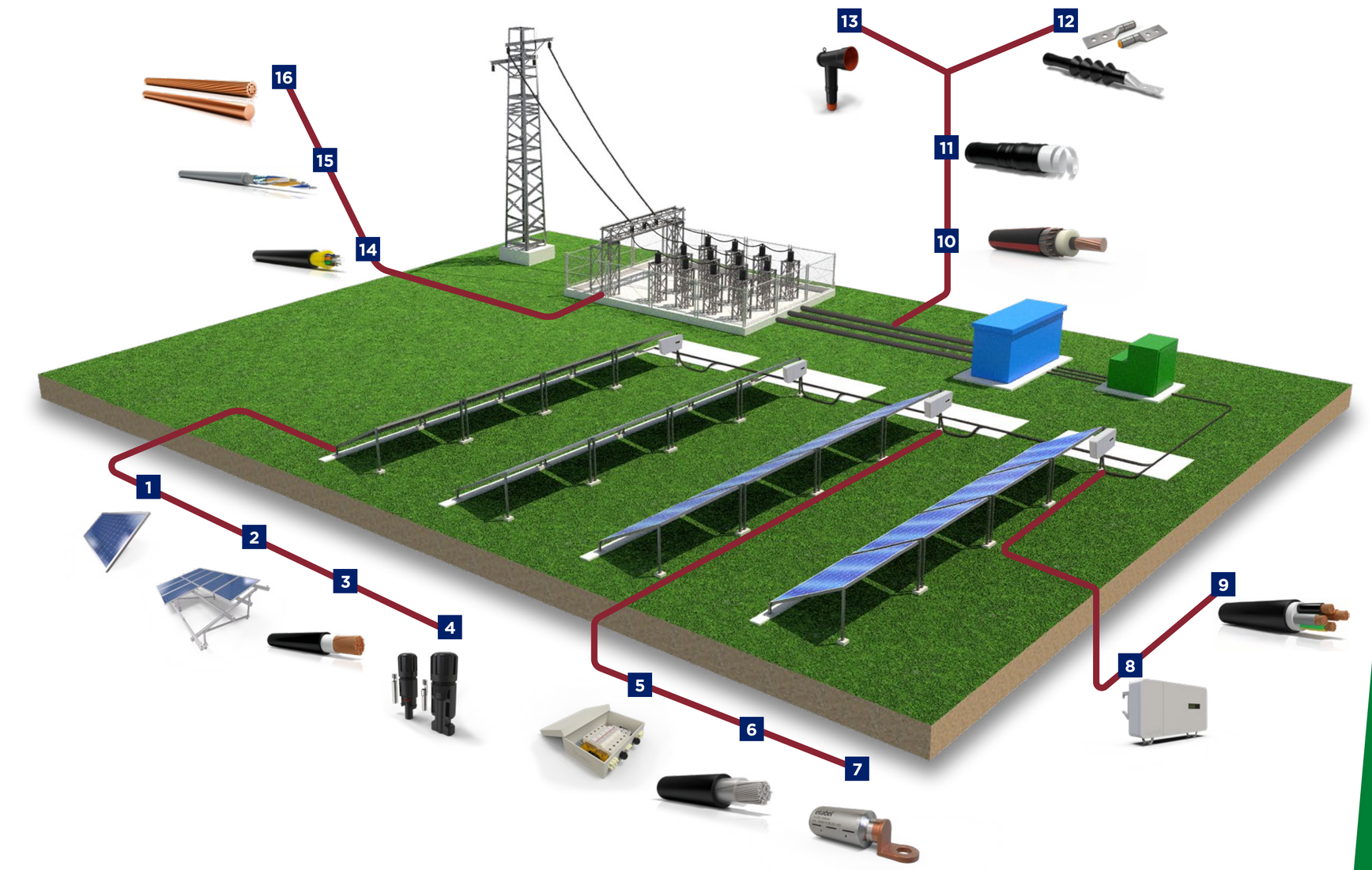
SOLAR ENERGY
SOLUTIONS



1. PHOTOVOLTAIC MODULE
2. GROUND MOUNT SUPPORT
3. SOLAR CABLE
4. MC4 CONNECTOR
5. COMBINER BOX
6. ALUMINUM CABLE
7. BI-METALLIC CONNECTOR
8. PV INVERTER
9. AC FORCE CABLE IN BT
10. PHOTOVOLTAIC CABLE
11. MV JOINT & COMPRESSION CONNECTOR
12. MV TERMINATION & LUG
13. SEPARABLE CONNECTOR
14. FIBER OPTIC CABLE
15. RS 485 CABLE
16. GROUNDING SYSTEM

SOLAR ENERGY SOLUTIONS

1 PHOTOVOLTAIC MODULE

Crystalline silicone solar modules convert energy from the sun into electricity to balance conventional generation with greener, renewable energy sources. They are TÜV and UL approved

2 GROUND MOUNT SUPPORT

Ground mounted structures provide robust support for PV solar modules, preventing any module from detaching due to strong winds or other sources. They are UL 2703 compliant allowing module ground bonding to the structure.

3 SOLAR CABLE

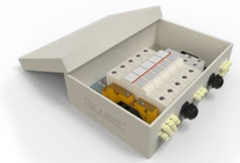
PV wire is a dual UL and TÜV cable capable of withstanding constant use under a UV environment, may be installed underground or above ground without additional weather protection means.

4 MC4 CONNECTOR

MC4 are UL approved connectors that offer a reliable solar module connection, preventing electric arcs due to unauthorized circuit disconnection.

4 ELECTRICAL CONECTOR

Installable connector system on the field that uses insulation displacement contact technology to offer a quick, easy and reliable connection from the PV cable to the PV panel.



5 COMBINER BOX

Combiner boxes are NEMA approved equipment that bring together many PV strings. They act as housing for these connections protecting them against dust, humidity and UV exposure.

6 ALUMINUM CABLE

For larger systems, aluminum conductor cables pose as an economical alternative against copper. This cable offers greater flexibility and is halogen-free.

7 BI-METALLIC CONNECTOR

Bi-metallic terminal connectors are used to electrically connect the conductor of a cable, either in copper or aluminum, to medium voltage equipment.

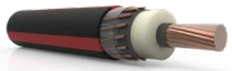
SOLAR ENERGY SOLUTIONS

8 PV INVERTER

Is a type of electrical converter which converts the variable direct current (DC) output of a photovoltaic (PV) solar panel into a utility frequency alternating current (AC) that can be fed into a commercial electrical grid or used by a local, off-grid electrical network.

9 AC FORCE CABLE IN BT

BT-type RV-K cables for distribution of energy, are suitable for industrial, urban and residential installations fixed in BT. It allows easy installation due to its high flexibility. It can be buried or installed in pipelines without any additional protection, resists humid environments and it is possible to submerge it completely in water.



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14 FIBER OPTIC CABLE

Fiber optic cables are suitable for critical communication systems in solar parks with faster data transmission rates and invulnerability against electromagnetic interference requirements.

15 RS 485 CABLE

RS-485 supports inexpensive local networks and multidrop communications links, using the same differential signaling over twisted pair as RS-422. It is generally accepted that RS-485 can be used with data rates up to 10 Mbit/s[a] or, at lower speeds, distances up to 1,200 m (4,000 ft)

16 GROUNDING SYSTEM

Copper grounding rods, grounding copper conductor and copper compression connectors along with exothermic welding offer the best option to electrically ground your system for safe operation.

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TURNKEY SOLUTIONS

WIND AND SOLAR COLLECTOR SYSTEMS

We include, in addition to the specification of the solution and its physical supply, a new category named **Specialized Services Installation (SSI).** With SSI we extend the promise of quality of our products to this set of critical jobs for our clients.

What does **SSI** include? Civil work (trenches, concrete junction boxes), laying of medium voltage cable, tests FAT (VLF), with local regulations and permits.

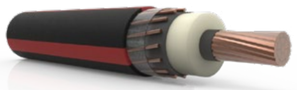
TURNKEY SOLUTIONS

1 NON-METALLIC CONDUIT

High strength conduit piping ideal for channeling underground electric low and medium voltage. Is red in color with a smooth interior and external corrugations of double arc, complying with the specifications of the CFE and international standards.

2 CONCRETE AND FIBERGLASS JUNCTION BOXES

Concrete junction boxes, modular arches and gutters made of reinforced polyester resins with SMC fiberglass.



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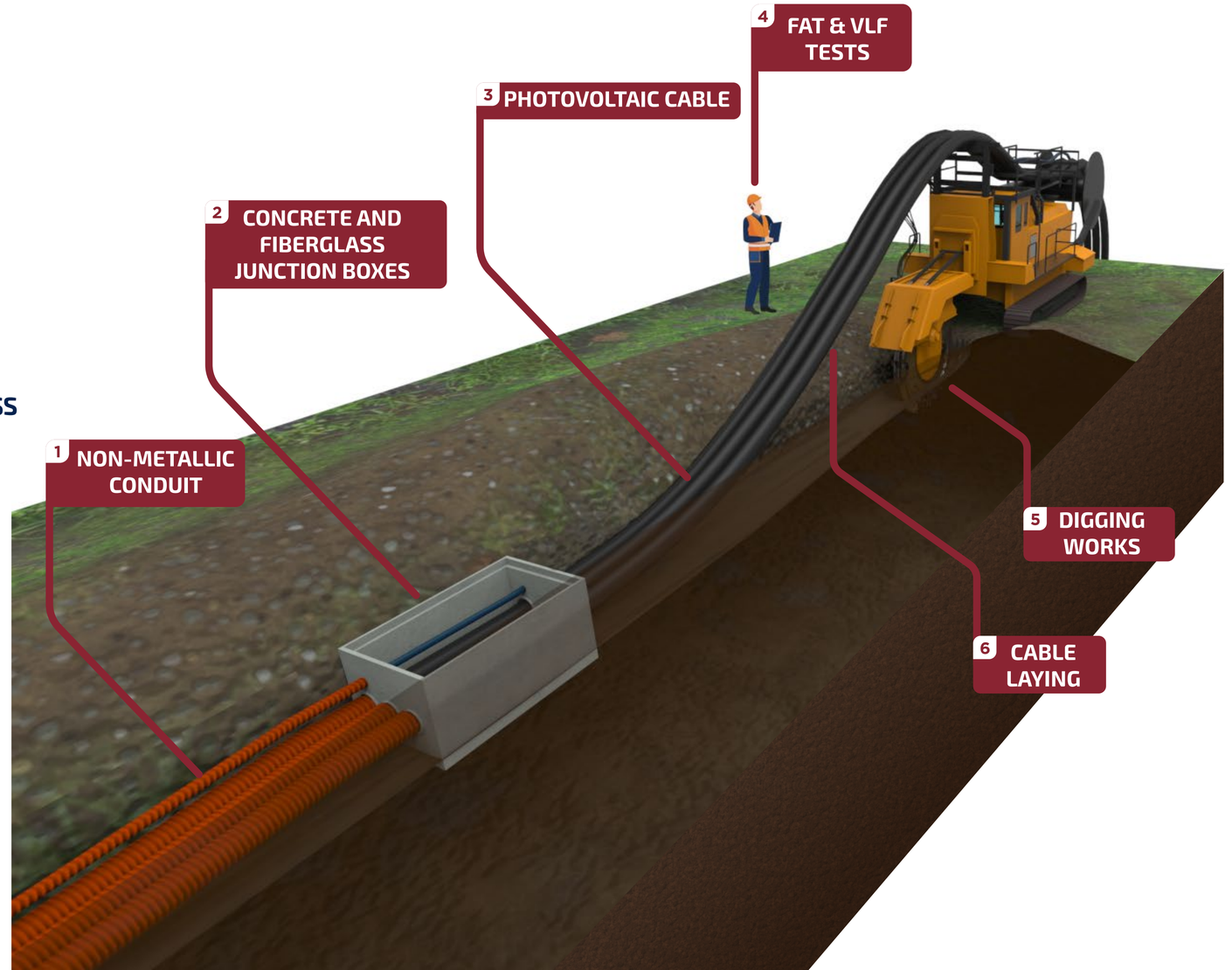

4 FAT AND VLF TESTS

They are generally carried out on site, according to product specific protocols well as tests of Applied Potential in Alternating Current at Low Frequency.

5 DIGGING WORKS

Trenching, equipment and installation with civil work.

6 CABLE LAYING

Underground laying of electrical medium voltage cables, also fiber optic cables.

OUR PHILOSOPHY

360º Integration

When it comes to solar and wind power projects, we have what you need.

Our wide range of products and the ability to integrate them into a solution represent the cornerstone of our service.

Knowledge Center

We have high-level engineers from different parts of the world who accumulate vast experience in the industries we serve.

- **Global Service Team (GST)**
  They are our experts dedicated exclusively to advise you.
- **Technology transfers**
  Specific training on the most updated topics.

Flexibility

We adapt to your needs. Our geographical expansion and a large number of projects allow us to offer competitive advantages in both large and small projects.

Logistics Without Borders

Our expedited logistics process aligns with the requirement of our customers to meet their expectations. It is an emblematic part of the Ekabel service.

Quality Guarantee

All our processes have ISO Certification 9001 granted by Bureau Veritas

ISO 9001
BUREAU VERITAS
Certification
CO20.00039/U

"We are passionate about analysis, design and integration of innovative solutions that help us build a better tomorrow together"

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