## **COMPANY OVERVIEW**

## **SEDIVER**



Experts & Pioneers

#### The world leader

## in transmission insulation technology

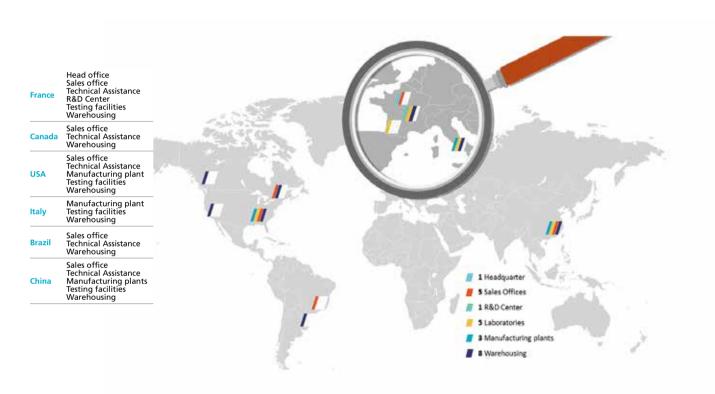
Sediver has 70 years' experience of worldwide power networks and invests permanently in R&D, positioning it as a true expert in research, design, manufacturing and testing of insulators up to very high voltages and for railway catenary systems.

Sediver guarantees the highest reliability and performance of its transmission systems throughout the service life of the line, under all environmental conditions.

Sediver is your natural partner for all insulation applications.

#### A global presence & local expertise

Extensive customer service
800 employees worldwide
In over 150 countries
3 manufacturing plants
1 Central R&D & 5 testing laboratories



## Research and development, a continuous investment

Sediver invests heavily in R&D to implement **cutting-edge technological improvements** and has pioneered some major innovations in the industry, with 120 active patents to its name.

The Sediver Research Centre in Saint-Yorre, France, boasts state-of-the-art equipment allowing its multidisciplinary world-class experts to run complete research programmes and tests on complete strings for systems up to 800 kV.

Sediver uses its unique technical expertise, gained from 70 years' R&D combined with field experience of over 600 million insulators in service, to constantly increase the reliability of its products.

Sediver is a key partner for innovation, proficient in developing and providing top quality innovative solutions.

## A complete technical solution

## Sediver® toughened glass insulation technology

Sediver's exclusive technology is built on the **highest quality requirements**, benefiting from the latest technological advances and engineering know-how, distinctive manufacturing processes, in-house designed equipment, stringent quality systems and production controls that ensure the highest purity of all glass produced.

This optimises operating performance and keeps life cycle cost to a minimum.

Moreover, at Sediver® we see no reason why electrical insulators should not provide grid operators with new IoT services. We have therefore integrated sensors into our insulators. Our Smart'R Suite delivers real-time monitoring and predictive maintenance to keep customers informed of the pollution affecting their lines at all times.

#### **HVAC**

Broad range of products from medium to ultra-high voltage (UHV)

- 70+ years of global experience
- 600+ million insulators
- Up to 1,000 kV
- From 70 kN to 860 kN



Sediver® High Resistivity Toughened Glass insulators (HRTG)

- 50+ years of global experience
- 11+ million insulators
- Up to 800 kV
- Up to 840 kN

#### **Extreme pollution**

Sedicoat insulators RTV silicone coated glass insulators

Over 25 years of proven performance:

- 4.5+ million insulators
- Up to 500 kV HVAC & ±800 kV HVDC
- Up to 840 kN

#### Sediver® Smart'R Suite

#### Real-time monitoring solution

Help your maintenance team make data-driven decisions. The Sediver Smart'R solution uses built-in sensors to monitor the pollution condition of insulators in real time.

- Plan ahead and streamline maintenance operations
- Reduce total cost of ownership









## By your side

## throughout your installation's life cycle

Sediver's team of experts provides world-class consultancy services covering every stage of the line insulation process: selecting best solutions, optimising insulator string configuration and providing accurate diagnoses of lines in service.

## Line construction project: Our premium support from the field to our lab

- In-field assessments
- Research and tests in our international lab network
- Tailor-made products with a dedicated quality programme

#### Project planning: Our top priority, your satisfaction

- Premium customer & sales services
- Agility of our production lines & warehouses all over the world
- Highest responsiveness in any case

#### Installation: Still with you in the field

- 3+ field interventions every month
- Safe, strong products that are easy to install
- Global teams to assist with product implementation

#### Operation: Count on us for all in-field assessments

- All types of assessment involving glass, composite or porcelain insulators
- Field and lab assessments through our global network
- Support engineers to solve technical issues relating to line operating conditions

#### Maintenance: The power of glass

- Toughened glass insulator strings to replace old insulator strings
- Sediver technical customer support to reconfigure string design and suggest appropriate hardware

#### **End-of-life: What goes around comes around**

■ After serving for over 70 years, glass insulators can be 100% recycled and recovered

#### Training & joint research programmes: To go further, with you

- Training courses on the latest regulatory and technical developments
- Joint research programmes to solve specific line insulation design or performance issues

#### Sharing knowledge: Because it's in our DNA

 Shared with the international technical community through technical publications

















### At Sediver, we are committed

# to increasing access to energy while reducing our environmental impact



We align our strategy and existing initiatives with the Ten Principles of the UN Global Compact and take strategic action to help achieve the Sustainable Development Goals (SDGs).

Sediver makes commitments and takes decisive action at all its sites with the support of stakeholders in pursuit of UN SDGs 3, 5, 7, 8, 9, 12, 13 and 16.

We have built a future-facing strategy around four pillars:

#### A strong code of ethics and economic growth shared with all stakeholders

- Responsible governance
- Ethics, compliance & human rights
- Support for local communities
- Data security & privacy

#### A safe and inclusive workplace for all employees

- Health and safety
- Employee well-being
- Employee development and engagement
- Diversity and inclusion

#### More environment-friendly end-to-end processes

- Fight against & adaptation to climate change
- Biodiversity
- Water management
- Circular economy
- Sustainable & responsible supply chain (with sustainable sourcing)

#### For an energy industry that uses less, for longer

- Contribution to a reliable & sustainable energy transition
- Product environmental performance
- Customer service & satisfaction
- Knowledge sharing & innovation

















## Over 7 decades of trust 150+ countries served by Sediver

• Abu Dhabi ADWEA/ADCO • Albania KESH • Algeria SONELGAZ-GRTE/KAHRIF/KAHRAKIB • Angola EDEL • Argentina BENITO ROGGIO/CARTELLONE/INTESAR/TRANSENER/TECHINT • Austria APE/EVN/VERBUND/APG • Australia POWERLINK/TRANSGRID/ELECTRANET/ENERGEX/ERGON/SP AUSNET • Belgium Elia/SNCB • Benin SBEE • Bolivia ENDE • Bosnia & Herzegovina EPBIH • Bostwana BPC • Brazil ABENGOA/ALUPAR/ALUSA/ARGO/CHESF/CEMIG/COBRA/CTEEP/ CYMI/ELECNOR/ELETROBRAS/ELETRONORTE/ELETROSUL/ENGEVIX/FURNAS/IE-MADEIRA • Bulgaria ESO • Burkina Faso SONABEL • Burundi EGL • Cameroon SONEL • Canada ATCO/ALTALINK/BC HYDRO/HYDRO ONE/HYDRO QUEBEC/ MANITOBA HYDRO/NALCOR ENERGY/NEWFOUNDLAND HYDRO/NB POWER/NS POWER/SASKPOWER • Cape Verde ELECTRA • Central African Republic ENERCA • Chad STEE • Chile ABENGOA/B.BOSCH/ELECTRICAS DE MEDELLIN/ ENGIE/ KIPREOS/SIGDO KOPPERS/TECHINT/TRANSELEC SA • China China Electric Power Equipment and Technology (CET)/China Energy Engineering Corporation (CEEC)/CSG/Power China/SEPCO/SGCC/SINOTEC/TBEA • Congo SNE • Congo (DRC) SNEL • Colombia ISA/ELECTRICAS DE MEDELLIN/ENLAZA • Costa Rica I.C.E. • Croatia HEP/HOPS • Czech Republic CEPS/CEZ • Cyprus ELECTRICITY AUTHORITY • Denmark • Djibouti DJIBELEC • Dubai DEWA/MEW • Equador CELEC-TRANSELECTRIC • Egypt EETC • Estonia ELERING • Ethiopia EEPTC • Finland SLO-IVO • France ENEDIS/RTE/ SNCF/RATP • Gabon SEEG • Germany AMPRION/EnBW/TENNET/50Hertz-Elia • Ghana VRA/ECG • Greece IPTO/HEDNO/ TERNA • Guatemala ETCEE/ DEOCSA/DEORSA • Guinea ENELGUI • Honduras ENEE • Hong Kong CLP • Hungary MVM • Iceland LANDSNET • India L&T/PGCIL • Indonesia PLN • Iran BREC/GREC/HREC/FREC/KWPA/SABREC • Iraq MOE ETP/ KRG • Ireland ESB • Italy TERNA • Ivory Coast SOPIE/CIE • Japan TEPCO/TOHOKU/KEPCO • Jordan NEPCO • Kenya KLPC/KETRACO • Laos EDL • Lebanon EDL • Lesotho LEC • Liberia LEC • Libya GECOL • Lithuania LITGRID • Luxembourg CREOS/CFL • Macedonia MEPSO • Madagascar JIRAMA • Malaysia TNB • Mali EDM/SOGEM • Mauritius CEB • Mauritania SOMELEC • Mexico ACCIONA/CFE/CYMI/ENTIA • Moldovia MOLDELECTRICA • Montenegro CSE • Morocco ONE • Mozambique EDM/HCB • Myanmar MEPE • Namibia NAMPOWER • Netherland TENNET • New Hebrides UNEL-CO • New Zealand TRANSPOWER • Nicaraqua ENEL • Niger NIGELEC • Nigeria PHCN • Norway STATNETT • Oman PDO • Pakistan PEPCO • Panama ETESA/ MC HOLDING • Paraguay ANDE/CIE/CONCRETMIX/ETESA/RIEDER • Peru ABEN-GOA/CONSORCIO TRANSMANTARO/ ENGIE/COPEMI/ELECTRICAS DE MEDELLIN/RED DE ENERGÍA DEL PERU/MINERA ANTAMINA/STATKRAFT • Poland PSE • Portugal REN/EdP • Qatar KAHRAMAA • Romania TRANSELECTRICA • Rwanda ELECTROGAZ • El Salvador CEK/DELSUR/ CLESA/DEASEM/EEO • Saudi Arabia HYUNDAI/NATIONAL GRID SA/NCC/ SCECO • Serbia EMS • Senegal SENELEC • Slovak Republic SEPS • Slovenia ELES • Spain COBRA/REE/IBERDROLA/ELEC-NOR/ENDESA/GN FENOSA • Sri Lanka CEB • South Africa ESKOM • South Korea KEPCO • Sudan NEC • Sweden SSPB/ SVK • Syria PEEGT • Tanzania TANESCO • Thailand EGAT • Togo CEET/CEB • Tunisia STEG • Turkey TEAS • Uganda UEB • Ukraine UKRENERGO • United Kingdom NGT/ SP/SSE • USA AEP/AMEREN/ATC/AUSTIN ENERGY/AVANGRID/BARNARD CONSTRUCTION/BLACK & VEATCH/BPA/BURNS & MCDONNELL/CENTRAL ELECTRIC/CONED/DOMINION ENERGY/DUKE ENERGY/EC SOURCES SERVICES/ENTERGY/EVERGY/ EVERSOURCE/EXELON/FIRSTENERGY/ FLORIDA POWER AND LIGHT/ IDAHO POWER/KIEWIT CORPORATION/LADWP/ LCRA/LS POWER/MID AMERICA ENERGY/MINNESOTA POWER/MYR GROUP INC/NATIONAL GRID/NORTH WESTERN ENERGY/NPPD/NYPA/ONCOR/PACIFICORP/PATTERN ENERGY/PG&E/ PPL/PSE&G/QISG/SDG&E/SHOW-ME POWER/ SOUTHERN COMPANY/TRI-STATE/TVA/VELCO/WAPA/WETT/XCEL ENER-GY • Uruguay INGENER/SACEEM/TECHINT/ TEYMA/UTE • Venezuela CORPOELEC • Vietnam NPPMB/CPPMB/SPPMB • Yemen PEC • Zambia ZESCO • Zimbabwe ZESA