

# SEDIVER



## COMPANY OVERVIEW

Experts & Pioneers

# The world leader in transmission insulation technology

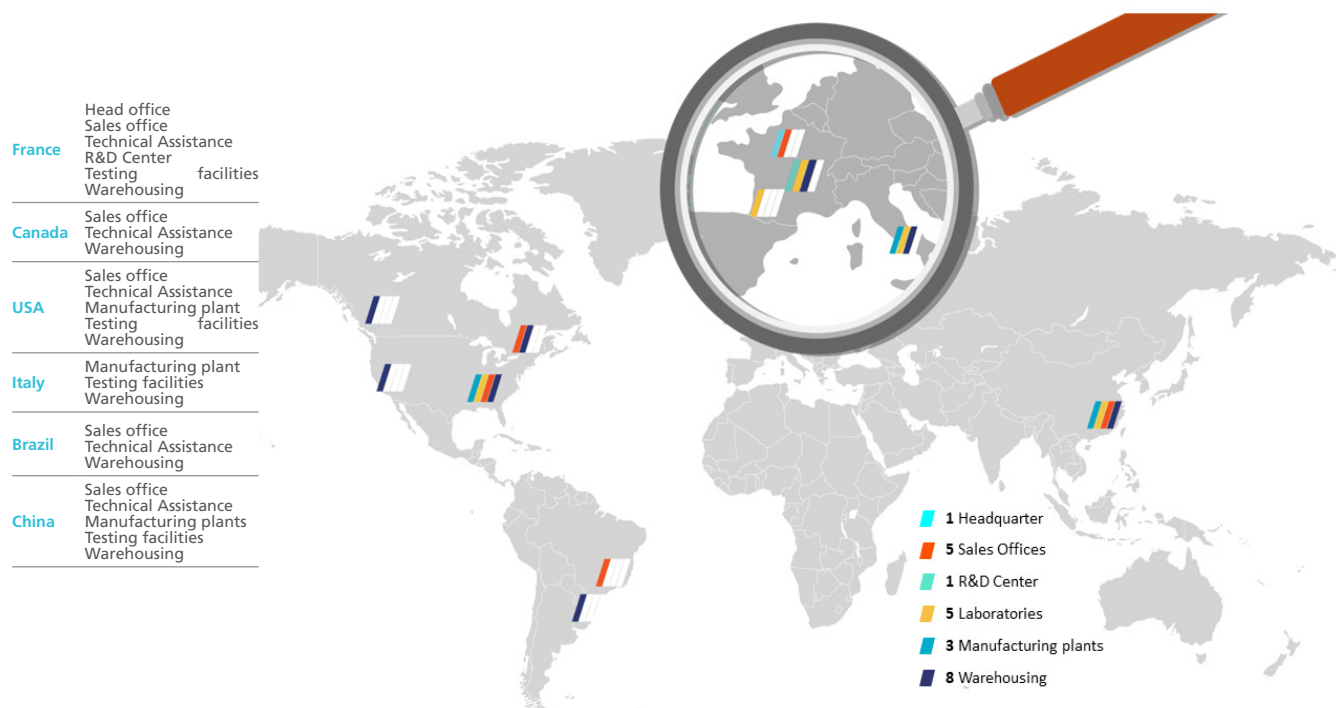
With 70 years of experience on worldwide power networks and a permanent investment in R&D, Sediver has gained a true expertise in research, design, manufacturing and testing of insulators up to very high voltages as well as for railway catenary systems.

Sediver ensures **the highest reliability and performance** of transmission systems throughout the service time of the line, under all environmental conditions.

Sediver is your natural partner for all insulation applications.

## Global presence & local proximity

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



## Research & Development, a continuous investment

Always on the lookout for the **latest technological improvements**, Sediver heavily invests in Research & Development and has pioneered some of the major innovations of the industry, with 600 patents to its name.

The Sediver Research Center located in Saint-Yorre, France boasts state-of-the-art equipment that allows its multidisciplinary world-class experts to perform **complete research programs** as well as tests on complete strings for systems up to 800 kV.

Through its unique technical expertise, gained from 70 years of R&D combined with its field experience of 600+ millions of insulators in service, Sediver **is constantly increasing the reliability of its products**.

Sediver is a key partner for innovation, through its proficiency in **developing and providing top quality innovative solutions**.

# A complete technical solution

## Sediver<sup>®</sup> toughened glass insulation technology

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

It result in **optimum operating performance and lowest life cycle cost**.

Moreover, at Sediver<sup>®</sup>, we see no reason why electrical insulators can't provide grid operators with new IoT services! So, we decided to **integrate sensors into our insulators**. Our **Sediver<sup>®</sup> Smart'R Suite** delivers **real-time monitoring and predictive maintenance** that keeps our customers informed of the pollution affecting their lines at all times.

### HVAC

**Broad range of products from Medium up to Ultra High Voltage (UHV)**

- 70+ years of global experience
- 600+ million insulators up to 1,000 kV
- From 70 kN up to 840 kN



### HVDC

**Sediver<sup>®</sup> High Resistivity Toughened Glass insulators (HRTG)**

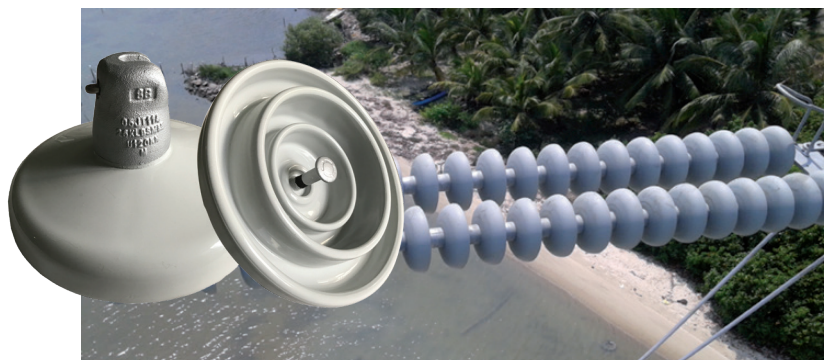
- 50+ years of global experience
- 11+ million insulators
- Up to 800 kV



### Extreme pollution

**Sedicoat insulators  
RTV Silicone coated glass insulators**

- 20+ years of proven performance
- 4.5+ million insulators
  - Up to 500 kV HVAC & ±800 kV HVDC



### Sediver<sup>®</sup> Smart'R Suite

**Connected insulators that enable predictive and preventive maintenance.**

Prevent incidents and limit unscheduled outages

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



# By your side throughout your installation's lifecycle

Sediver's team of experts provides world-class consultancy that covers every stage of the line insulation process: selecting the best solutions, optimizing insulator string configuration, providing accurate diagnostic of lines in service.

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

- On the field assessment
- Research and tests within our international laboratories network
- Tailor-made products with dedicated quality program



## 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 on the field

- 3+ field interventions per month
- Strong & safe products easy to install
- Worldwide teams to support implementation of our products



## Operation: Count on us for any assessment on the field

- Perform any type of assessment on glass, composite, and porcelain insulators
- Conduct field or lab assessment thanks to our worldwide network
- Support engineers to solve technical issues related to the lines operating conditions



## Maintenance: The power of glass

- Toughened glass insulators' strings can be used to replace any aging insulators' strings
- Sediver Technical team supports our customers to reconfigure the string design and suggest the appropriate hardware



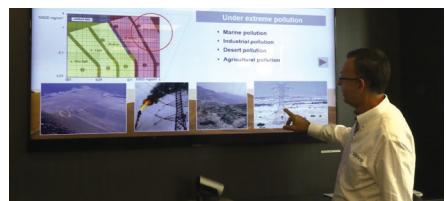
## End-of-life: What goes around comes around

- After performing over 70+ years, glass insulators are 100% recyclable and recoverable



## Training & joint research programs: To go further with you

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



## Sharing knowledge: Because it is in our DNA

- Sharing with the international technical community through technical publications.



# At Sediver, we are committed to broadening access to energy while reducing environmental impacts



We are aligning our strategy and existing initiatives with the UN Global Compact Ten Principles & taking strategic actions to further contribute to the achievement of Sustainable Development Goals (SDGs)

In accordance to the UN SDGs, Sediver takes engagements & strategic actions for all of our sites and including our stakeholders: 3, 5, 7, 8, 9, 12, 13, 16.

We have organized our strategy around four axes and we work on those topics for the years to come

## Sharing strong ethics and economic growth with all our stakeholders

- Responsible Governance
- Ethics, Compliance & Human rights
- Support to local communities
- Data security & privacy

## Providing a safe and inclusive workplace for all employees

- Health and Safety
- Employees' well-being
- Employee's development and engagement
- Diversity and inclusion

## Make our end-to-end processes more environment-friendly

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

## Helping the energy industry use less, longer

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

# Trusted for more than 7 decades

## 150+ countries | Utilities 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/ELETOBRAS/ELETRONORTE/ELETROSUL/ENGEVIX/FURNAS/IE-MADEIRA • **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 • **Czech Republic** CEPS/CEZ • **Cyprus** ELECTRICITY AUTHORITY • **Denmark** • **Djibouti** DJIBELEC • **Dubai** DEWA/MEW • **Ecuador** CELEC-TRANSELECTRIC • **Egypt** EETC • **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 • **Luxembourg** CREOS/CFL • **Macedonia** MEPSO • **Madagascar** JIRAMA • **Malaysia** TNB • **Mali** EDM/SOGEM • **Mauritius** CEB • **Mauritania** SOMELEC • **Mexico** ACCIONA/CFE/CYMI/ENTIA • **Moldovia** MOLDELECTRICA • **Morocco** ONE • **Mozambique** EDM/HCB • **Myanmar** MEPE • **Namibia** NAMPOWER • **Netherland** TENNET • **New Hebrides** UNELCO • **New Zealand** TRANSPOWER • **Nicaragua** ENEL • **Niger** NIGELEC • **Nigeria** PHCN • **Norway** STATNETT • **Oman** PDO • **Pakistan** PEPCO • **Panama** ETESA/MC HOLDING • **Paraguay** ANDE/CIE/CONCRETMIX/ETESA/RIEDER • **Peru** ABENGOA/CONSORCIO TRANSMANTARO/ENGIE/COPEMI/ELECTRICAS DE MEDELLIN/RED DE ENERGÍA DEL PERU/MINERA ANTAMINA/STATKRAFT • **Poland** PSE • **Portugal** REN/EdP • **Qatar** KAHRAMAA • **Romania** NEK • **Rwanda** ELECTROGAZ • **El Salvador** CEK/DELSUR/CLESA/DEASEM/EEO • **Saudi Arabia** HYUNDAI/NATIONAL GRID SA/NCC/SCECO • **Serbia** EMS • **Senegal** SENELEC • **Slovenia** EPS • **Spain** COBRA/REE/IBERDROLA/ELECNOR/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 ENERGY • **Uruguay** INGENER/SACEEM/TECHINT/TEYMA/UTE • **Venezuela** CORPOELEC • **Vietnam** NPPMB/CPMB/SPMB • **Yemen** PEC • **Zambia** ZESCO • **Zimbabwe** ZESA