



# RENEWABLE ENERGY

lectrus



Lectrus is a leading electrical systems integrator and custom metal enclosure designer and manufacturer. With more than forty years of history and experience, we offer a unique combination of services: innovative design solutions, project management, electrical equipment integration, site assistance and customer support.

We serve our clients with two of the highest capacity manufacturing facilities in the industry, located in the strategic locations of Chattanooga and Houston.

And with a comprehensive product line of equipment centers, operator centers, custom enclosures and skids, we provide protective and flexible solutions for use throughout the renewable energy industry.

## RENEWABLE ENERGY

With growing concern for environmental protection and natural resource replenishment, global demand for renewable energy alternatives has increased.

Exploration, expansion and technological advancements have been made in several areas, including those of:

- // Hydropower
- // Solar heating
- // Geothermal energy
- // Ocean energy
- // Wind power
- // Biomass
- // Hydrogen fuel

We recognize each requires its own complex electrical solution to manage power generation and transmission – and that means providing you the right package specifically designed for each of them. We know that timing is crucial in this market, which is why Lectrus makes such a great project partner.

Equipment at a wind farm, for example, must constantly monitor and regulate power output of turbines, then manage distribution to local electric power transmission networks. Protection for switchgear is a high priority on both sides of the electric meter. And of course, numerous relay panels also play a big part in the process.

Our enclosures must not only physically accommodate a variety of equipment; they must also protect it from some pretty harsh elements. Critical equipment in hydroelectric facilities may face high humidity levels, while that in biogas plants may have to contend with corrosive vapors. Equipment in wind farms may be exposed to severe weather and extreme temperatures.

Lectrus is proud to support the renewable energy industry with a full line of customized products. Our team of experienced engineers can provide you with innovative design, integration and fabrication solutions customized to your project's individual specs as well as physical environment. We can give you structural options to withstand elements like wind, seismic activity and heat. We have extensive HVAC filtration and pressurization options to keep out dust and other particulate matter. And we offer coatings and veneers to fight off corrosion.

For ultimate convenience, Lectrus can provide structural protection that is specifically designed for your project and we can fully integrate your third-party electrical equipment, test it, and deliver it to you in a single convenient shipment.

We're dedicated to helping you protect the critical, sensitive and often expensive equipment that supports valuable renewable energy efforts.

## PRODUCTS



Our products are rugged, reliable and flexible, giving you options for materials, space requirements and future expansions. When we install and test your power, control and wiring applications, you get a turnkey solution that lets you skip the hassle of working with multiple vendors. And our products can also save you money. Not only can you decrease onsite construction and commissioning costs, you may be able to depreciate our mobile centers as equipment for sizable tax savings.

## **Equipment Centers**

It doesn't matter if you want to move it, stack it, expand it or drag it – we can give you an equipment center, also called a control center that will do exactly what you need. Our prefabricated modular metal centers typically safeguard low, medium and high voltage electrical equipment that either you or one of our electrical equipment partners provides. This includes power distribution controls, switchgear, motor controls, drives, generators, rectification, DCS, PLC and more.

Whether specs call for NEMA 3R, 12, 4 or 4X protection or special HVAC systems, we can design and build a custom solution that meets your specific needs and is much easier, more economical and versatile than site-built buildings. In addition to pressurization, filtration, coating and acoustic insulation options, we also offer various tiers of structural protection:

### **Structural Protection Levels**

1. G90 galvanized steel for walls and roof, protected with epoxy paint with polyurethane topcoat or severe duty coating system
2. Aluminum construction
3. Stainless steel construction

To help you maximize space, our centers can be reinforced to allow for stacking or the installation of rooftop gear. But we can also give you room to grow, with an option for a removable end wall that makes future expansion easier.

## **Operator Centers**

When you need to protect personnel as well as equipment, consider a Lectrus operator center, constructed specifically to protect your people and controls from noise, dust and inclement conditions. Our operator centers can accommodate a variety of conditions and requirements that traditional shelters may not be able to:

- // the inclusion of a classified security sector
- // high noise pollution
- // extreme weather
- // dust
- // atmospheric contaminants
- // sensitive equipment

Lectrus can also combine operator and equipment center functions into one unit, either on a single level, or in a multi-level center that combines an operator pulpit with a lower level equipment center.

### Custom Enclosures

Lectrus custom electrical enclosures are individually designed to house an extensive array of electrical controls and devices, and protect them from harsh conditions. Our enclosures can be designed and constructed to meet NEMA 4, 4X, 3R or 12 requirements, and are available in stainless steel or aluminum alloy. We also offer additional structural and design options, such as wall or floor mounting to wrap-around or stand-alone units.



WIND FARM CONTROL BUILDING PROJECT IN GENTRY COUNTY, MO

### Skids

When you need a sturdy and portable alternative to a large equipment center, our steel skids provide a low-cost option for placing equipment like pumps and compressors outdoors. They're also a convenient solution when retrofitting existing buildings or facilities with new electrical control and power equipment. We can integrate your components and mount them onto our welded steel base, testing control wiring before transporting to your worksite in a single, convenient shipment.

## CHOOSE LECTRUS

Our customers depend on the consistent high quality that Lectrus has come to represent. Our products are custom-designed to meet your exacting specifications, and are built from tough materials to stand up to harsh conditions. Through our experience working with companies in the renewable energy field, we've developed a range of offerings that give you the reliable protection you need and the flexibility and convenience you want.

**We have your customized project solution – Engineered to spec. Built to last.**



## **OUR PROCESS**

- // Request for Proposal**
- // Proposal Developed and Sent to Customer:**
  - / Bid/Estimate**
  - / Bill of Materials**
- // Bid Review Meeting**
- // Proposal Formally Accepted**
- // Order Submitted/Accepted**
- // Project Manager Assigned**
- // Electrical and Structural Engineers Prepare Drawings for Client Approval**
- // Fabrication Begins**
- // Electrical Integration**
- // Quality Control Assurance**
- // Customer Approval**
- // Project Delivery**
- // Field Services Support**

For additional information or to submit a request for a project bid, please contact:

800 445 8791

423 894 9268

lectrus.com

email: sales@lectrus.com



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