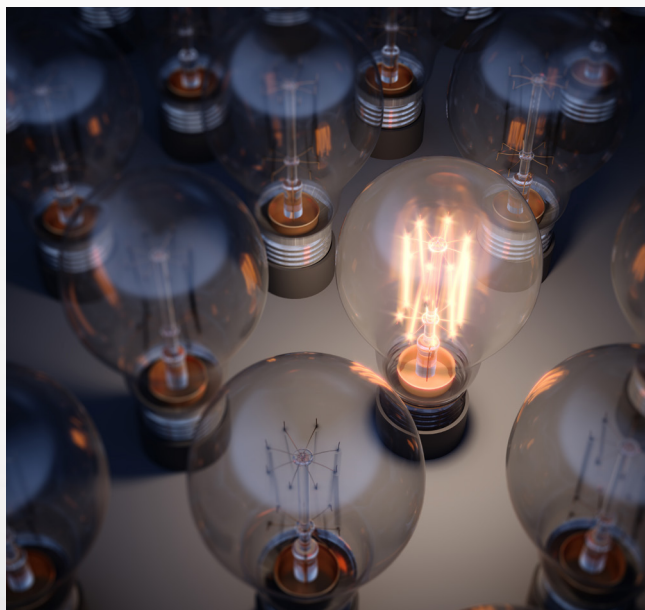


# Energy

Solution Brief



Ensure your journey adds value without disrupting the mission-critical services your customers rely on.



Today's smart grid transition, coupled with digital transformation technologies, promise significant advances in safety, security and speed, requiring greater network capacity and flexibility for various system integrations.

Belden's vendor-agnostic connected energy solution, combined with carefully planned migration, enables you to maximize the value of your legacy assets while creating a flexible, future-proof network foundation for your business.

## Designing future-ready networks for power generation, transmission and distribution

Greater reliability, operational efficiency, safety, sustainability and customer satisfaction could support many of your goals for the coming year. Consider how these improvements - provided by Belden - could advance your plans.



### Several strategies to increase these KPIs:

- Optimize power grid data, including legacy OT, onto a modern network architecture.
- Improve cross-enterprise data flow to drive better and real-time insights.
- Protect against cyberthreats to drive equipment safety, power reliability and security compliance.
- Enhance your protection, automation and control systems.
- Extend the visibility and monitoring of all your field assets.

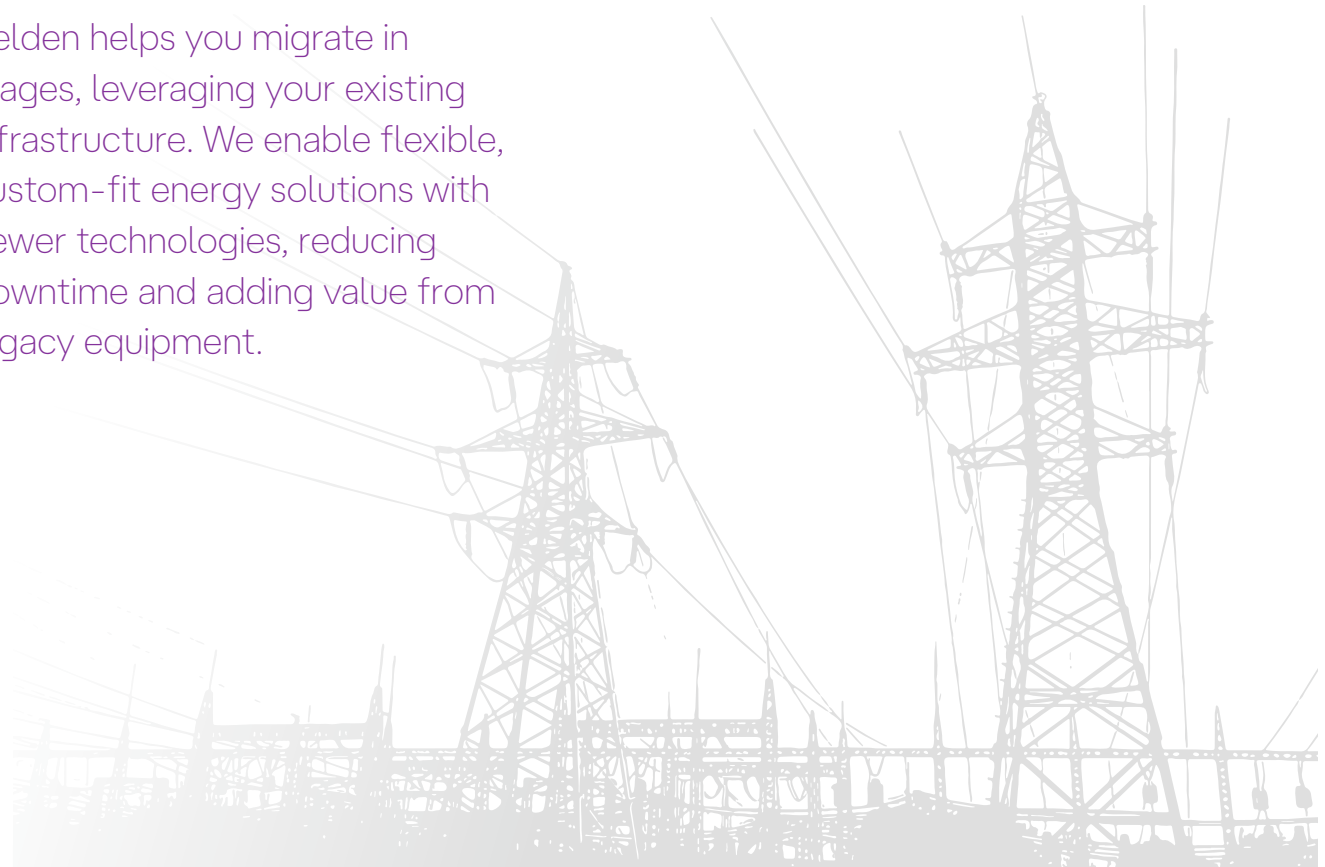


### Unlocking better performance in your digitization journey relies on a highly functional, high-availability network.

Robust connections between assets ensure seamless operations and optimal efficiency:

- Within each operational area.
- Between operational areas.
- Between operations technology (OT) and information technology (IT) networks.

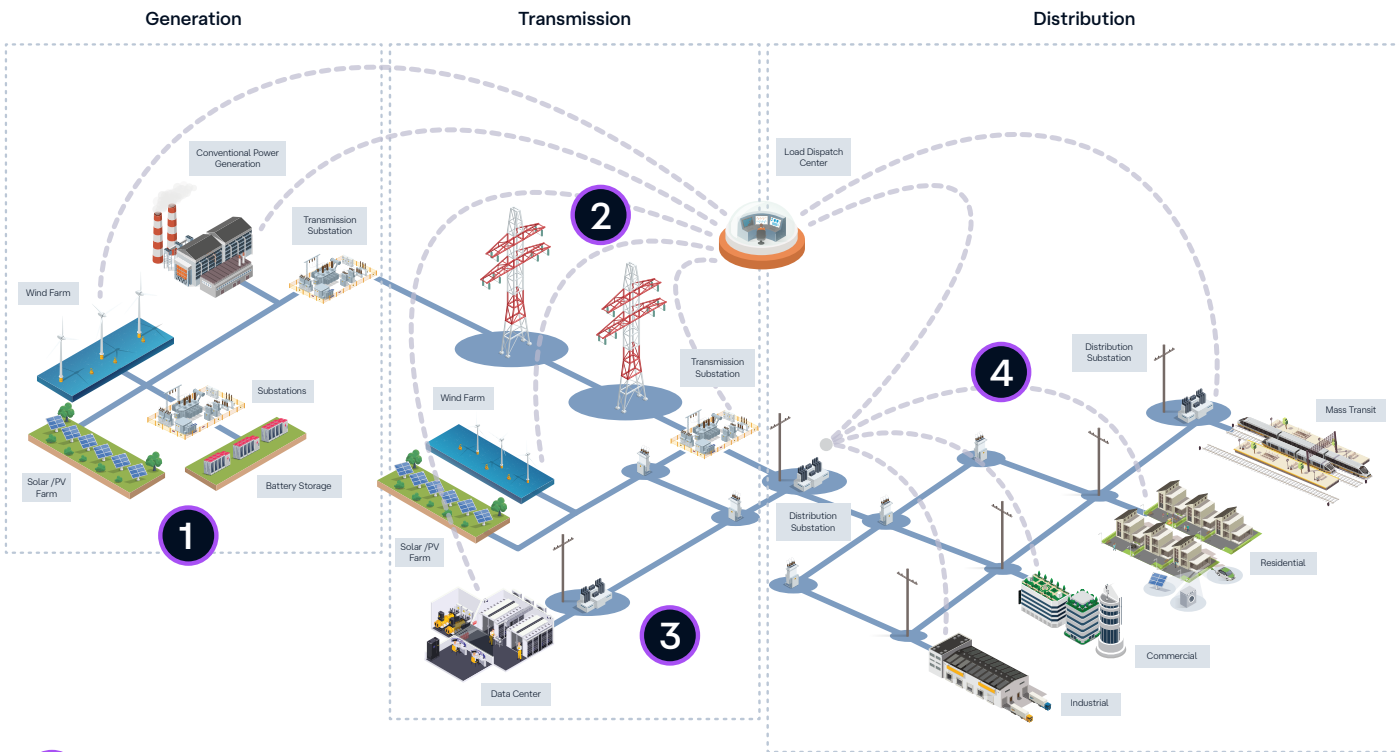
Belden helps you migrate in stages, leveraging your existing infrastructure. We enable flexible, custom-fit energy solutions with newer technologies, reducing downtime and adding value from legacy equipment.



## Build a robust network foundation for your digital transformation

With Belden's expertise, you can design and implement the robust, high-performance networks needed for digital transformation. Belden can help you connect your disparate data types into secure networks that ensure mission critical transport of information. Belden's complete connection solutions will help you modernize your existing assets gradually over the course of your digital transformation, retaining the value of these assets over the planned lifetime.

Our experts assess your unique requirements to design custom-built networks. They test, proof and troubleshoot these networks to ensure optimal performance. Our future-ready, resilient energy network solution supports IT-OT convergence. It leverages legacy supervisory control and data acquisition (SCADA), teleprotection and auxiliary systems.



### 1 Renewable Integration

Integration of renewable generation:

- Wind
- Solar/ PV
- Battery energy storage systems

### 2 Wide Area Networks (WAN)

Operational telecommunications:

- Mission critical WAN
- Transport of legacy applications
- Monitoring of critical assets

### 3 Substation Automation Systems (SAS)

Common networks or system levels:

- SCADA/RTU
- Protection and control systems - either conventional or digital substations
- Metering systems

### 4 Field Area Networks

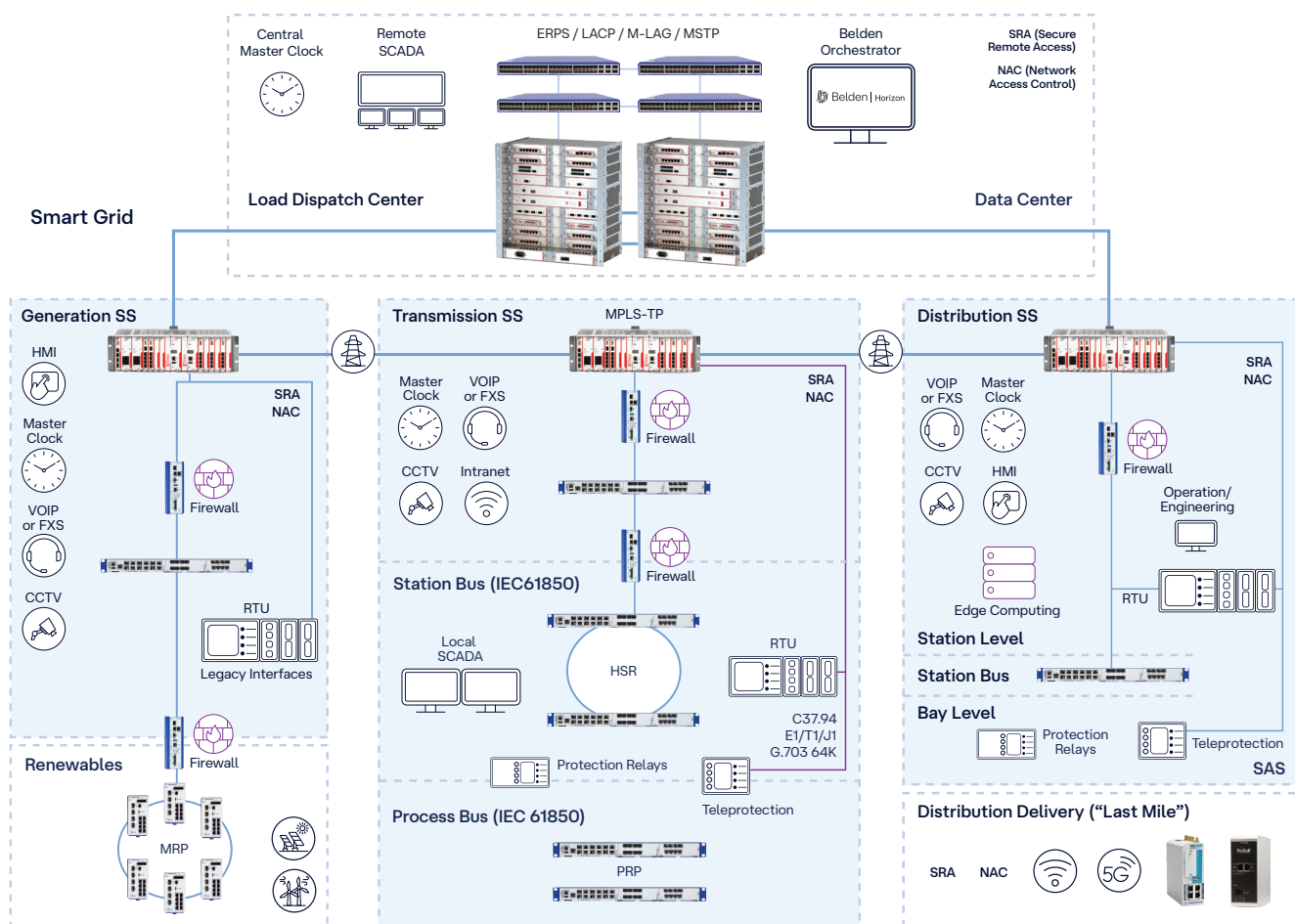
Extended visibility and control:

- Monitoring of field assets
- Distribution automation
- Integration of DERs/VPPs



# Work with Belden to meet your Energy networking needs

As an end-to-end network solution provider, Belden guides you to the essential products, services and tools for your digitization journey. With our experts by your side, your automation plans come to life through Belden's extensive network portfolio and third-party solutions. Below is a glimpse of a fully connected energy solution architecture for the operational areas mentioned above:



# Global Customer Innovation Centers™:

Belden’s Customer Innovation Centers (CICs) serve your needs throughout the solution development lifecycle. These hubs – strategically located to serve regions throughout the world – offer access to best-in-class capabilities, including the opportunity to run proof of concepts (PoCs) in our validation lab.



## Experts at your side:

Designing the right solution for your business needs is not an easy task, so Belden provides direct access to our experts:

>>> Solution Architect	>>> Digital Automation Consultant	>>> Solution Consultant	>>> Service Engineer
<ul style="list-style-type: none"><li>• Deep technical knowledge of network architectures</li><li>• Develop, design, and validate best solutions tailored to the complexity of each customer’s unique business challenge</li></ul>	<ul style="list-style-type: none"><li>• Draws from deep industry knowledge to serve as a trusted advisor to the customer when identifying challenges and goals</li><li>• Are industry thought leaders within their respective verticals, staying abreast of current technologies and influencing the creation and innovation of new solutions</li><li>• Partners with customer and solution consultant in determining project scope and requirements</li></ul>	<ul style="list-style-type: none"><li>• Belden product specialist</li><li>• Identifies wired, wireless or cybersecurity products to meet the customer’s needs</li><li>• Helps to develop the user’s network and solution design based on Belden team’s conversations with customer</li></ul>	<ul style="list-style-type: none"><li>• Deep technical knowledge of products and technologies</li><li>• Conduct trainings, test and commission networks</li><li>• Lead network assessments and deliver high quality presales and post-sales technical support</li></ul>





# Connect to what's possible.

Solution Brief



## About Belden

Belden Inc. delivers complete connection solutions that unlock untold possibilities for our customers, their customers and the world. We advance ideas and technologies that enable a safer, smarter and more prosperous future. Throughout our 120+ year history we have evolved as a company, but our purpose remains – making connections. By connecting people, information and ideas, we make it possible. We are headquartered in St. Louis, United States, and have manufacturing capabilities in North America, Europe, Asia and Africa.

For more information, visit us at:  
**belden.com**

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