

Regional Grid Transformation



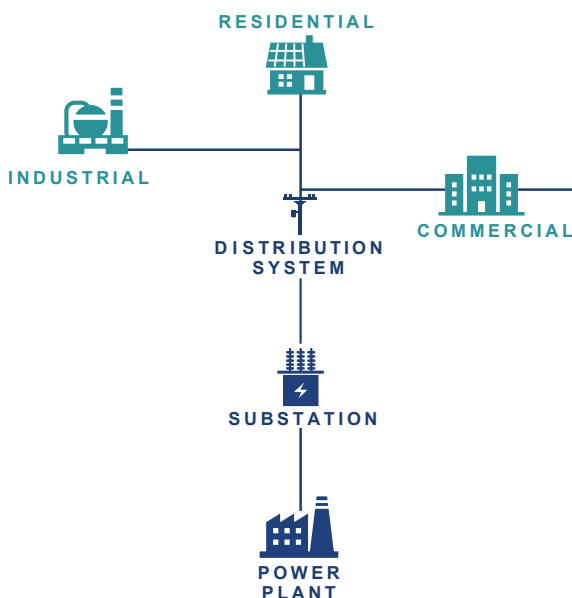
Transforming the region's existing power grids into a **flexible, resilient and integrated system** to meet evolving customer expectations and changing world conditions.

TRADITIONAL

One-way power, limited interconnectivity

Electrification, digitization, extreme weather events and more are driving a growing reliance on the availability of reliable, clean and affordable electricity. While sufficient today, the traditional power grid cannot fully support the means needed to meet the demands of tomorrow.

As a region, we must develop a proactive and collaborative strategy for these changes.

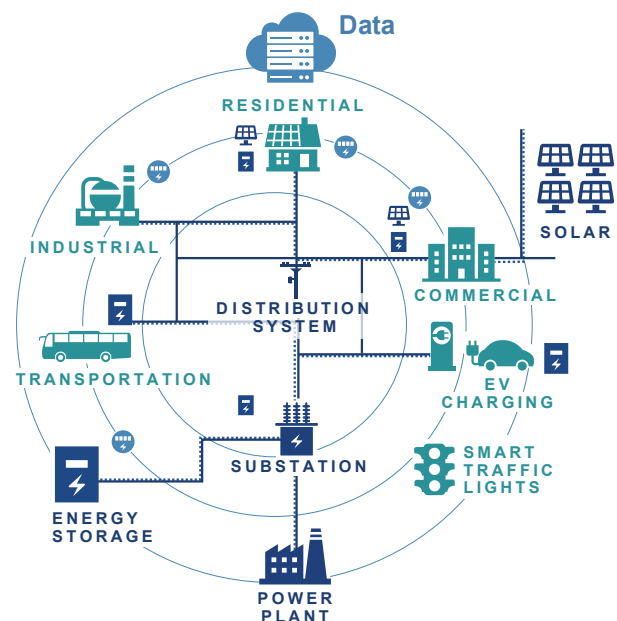


TRANSFORMATIVE

A dynamic grid system

Advancing our electric system to support grid-transforming capabilities is necessary to adapt to market, regulatory and environmental changes. Key activities include considering the role of solar and other distributed energy resources, incorporating end-to-end communications systems and more.

TVA and local power companies (LPCs) are working together to enable these changes through the Regional Grid Transformation (RGT) initiative.



Value for the Region

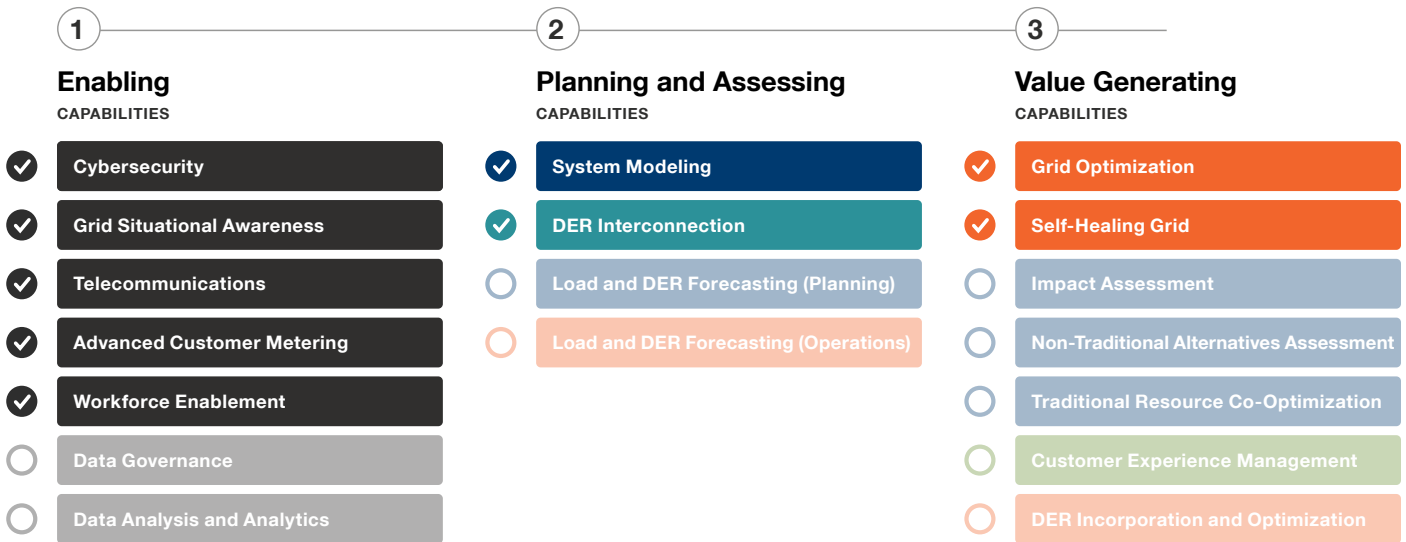
TVA and partner LPCs are working together to align interests and needs to collaboratively create a vision and plan for grid transformation. Developed with LPCs and subject matter experts, capability areas and roadmaps set the direction for how the region can grow and adapt the grid to benefit LPCs, stakeholders and end-use customers.



RGT drives greater efficiency, provides overall cost savings, manages risks appropriately and delivers broad-ranging value for the TVA region.

RGT Capability Progression Model

Over the past year, TVA and partner LPCs worked together to guide grid transformation efforts and explore the capabilities that support regional progress and produce benefits for all. This partnership yielded the capability progression model, developed to help LPCs benchmark their current maturity level, identify pathways for capability progression and plan investments in technologies and capabilities that support a modern energy grid.



CAPABILITY CATEGORIES

- Integrated Planning
- Regional Guidelines
- Enhanced T&D Operations
- Exceptional End-User Experience
- Grid Transformation Enabling
- Please note only the capabilities indicated with a checkmark have been researched. All others are currently being explored and will be further defined in the future.
- Initial Capabilities
- Capabilities To Be Developed

TVA and LPCs will continue the multi-year capability exploration and deployment process, launching pilot projects to demonstrate innovative tools, processes, technologies and lessons learned for other LPCs.

Connect with Us

Have questions or want to find out more?
Contact your customer service manager.

You can also find more information on ValleyConnect.
<https://valleyconnect.tva.gov/resources/innovation-research/regional-grid-transformation>