

# Regional Grid Transformation



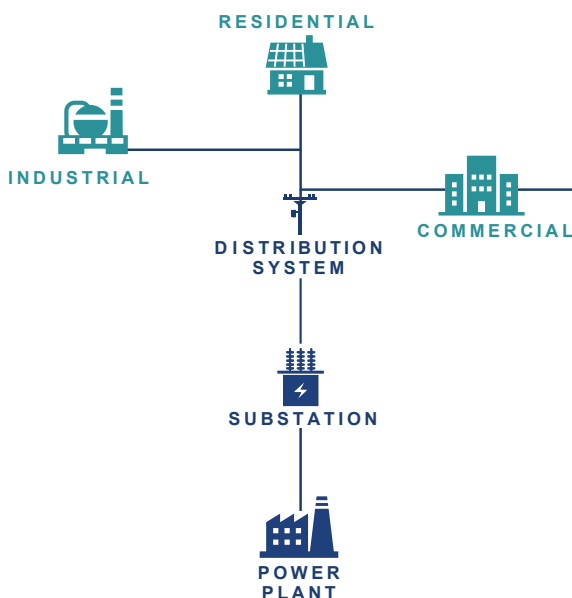
Transforming the region's existing power grids into a **flexible, resilient and integrated system** to meet evolving customer expectations and changing world conditions.

## 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.

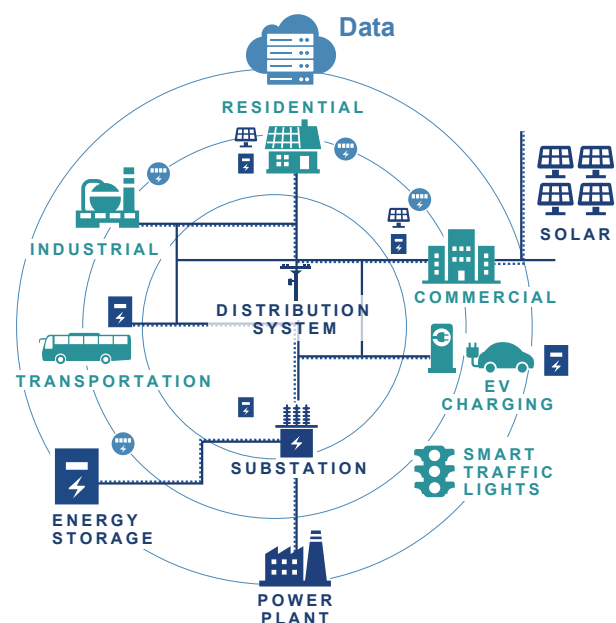


## TRANSFORMATIVE

### 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.





**RGT can drive greater efficiencies, provide overall cost savings, manage risks appropriately and deliver broad value for the TVA region.**

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## 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.

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## Develop. Demonstrate. Deploy.

Over the past year, TVA and partner LPCs worked together to understand how to support grid transformation efforts. From this partnership, a strategic roadmap and tactical roadmaps were developed that set the region's overarching strategy for pursuing grid transformation and outline the timeline of activities and initiatives for each partner.

**Over the next year, TVA and LPCs will begin the multi-year deployment process and launch pilot projects to demonstrate innovative tools, processes, technologies and lessons learned for other LPCs.**

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## RGT Capability Areas

### 1 INTEGRATED PLANNING

Determines best practices, manages efforts and optimizes investments.

### 2 ENHANCED TRANSMISSION AND DISTRIBUTION OPERATIONS

Utilizes situational awareness to provide transmission and distribution operators with the ability to operate the grid with coordination and resiliency.

### 3 REGIONAL GUIDELINES

Facilitates partnership and collaboration around common standards, architecture, information sharing and stakeholder alignment.

### 4 EXCEPTIONAL END-USER EXPERIENCE

Helps manage customer energy usage and costs and sets up clear lines of communication for increased transparency and understanding.

### 5 GRID TRANSFORMATION ENABLING

Outlines the foundational capabilities and technologies needed to implement grid transformation successfully.

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## 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>