

JOHNSON CITY, TN

Johnson City Smart Poles

This pilot will evaluate the combination of smart lighting and sensor technologies to support business case development around energy savings, public safety, park management, community experience and satisfaction and reduced maintenance.

BUDGET

\$500K

\$335K

"Smart" equipment costs.

\$165K

Collection and analysis of smart technology energy impact data by EPRI.

In-kind

Planning, coordination and installation by BrightRidge and Johnson City.

Founders Park

Post top modules include:



LED lighting controls

e.g., synchronized, dimmable and mobile/cloud-based lighting controls.



Weather station

for local temperature, barometric pressure, wind speed and direction, and precipitation.



Audio speakers

for broadcasting safety messages and music.

QUANTITY

36

retrofitted smart poles



4-color LED lighting

for seasonal decoration or visible warnings.



Pedestrian counters (x2)

to measure park use times and seasonality.



Water level monitor

tied into an audio/visual alarm for creek level rise.

6

new smart poles



LED lighting controls

e.g., synchronized, dimmable and mobile/cloud-based lighting controls.



Audio speakers

for broadcasting safety messages and music.

QUANTITY

6

retrofitted smart poles

1

new smart pole



4-color LED lighting

for seasonal decoration or visible warnings.



FOCUS AREA
Equitable Access to Services



TENNESSEE
VALLEY
AUTHORITY

Points of Leverage

Smart Sensor Implications

While many vendors have piloted smart lighting technologies, this pilot focuses on the value and savings of a combination of smart sensor technologies, how they can be applied in different scenarios and how a community is able to generate positive outcomes by leveraging technology and data.

Value Proposition and Guidelines

The one-year measure and verification data will inform guidelines to share with other cities and local power companies. It will also influence the value proposition for smart poles and sensor projects across the Valley.

The Value

Johnson City

- **Energy savings** from dimmable LED lighting control beyond simply off and on
- Enhance **park management** through utilization data and community experience
- Improve **public safety** and city communications

BrightRidge

Use of cloud-based monitoring will **reduce maintenance service costs** through reduced truck rolls and troubleshooting

TVA

Through data collected by EPRI, TVA will learn:

1. **Energy use and savings** from smart technologies
2. **Applicability and scalability** for the Valley

Key Partners

TVA

[Georgia Caruthers](#) (main contact)
Bonnie Latta
Chris Quillen

Johnson City

Pete Peterson
Phil Pindzola

BrightRidge

Jeff Dykes
Mark Eades
Mike Stovall

EPRI

Frank Sharp
Doug Lindsey

Timeline

Authorization

September 2021

Anticipated approvals from Johnson City and BrightRidge boards

Implementation

December 2021

Equipment delivered

Evaluation

March 2022

Equipment live

March 2023

One year of measurement and verification of data; final report