

Johnson City Smart Poles

This pilot is evaluating the combination of smart lighting and sensor technologies to gather community insights that support future plans regarding energy savings, public safety, park management, residential experience 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

King Commons Playground

POST TOP MODULES



4-Color LED Lights

for seasonal decoration or visible warnings.



Lighting Controls

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



Audio Speakers

for broadcasting safety messages and music.

QUANTITY

6

retrofitted smart poles

1

new smart pole

Founders Park

POST TOP MODULES



4-Color LED Lights

for seasonal decoration or visible warnings.



Lighting Controls

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



Weather Station

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



Audio Speakers

for broadcasting safety messages and music.



Pedestrian Counters (x2)

to measure park use times and seasonality.



Water Level Monitor

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

QUANTITY

36

retrofitted smart poles

6

new smart pole



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 measurement and verification of data informs guidelines to share with other cities and local power companies. It also influences the value proposition for smart poles and sensor projects across the region.

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 reduces maintenance service costs through reduced truck rolls and troubleshooting

TVA

Through data collected by EPRI, TVA will learn:

- Energy use and savings from smart technologies
- Applicability and scalability for the Valley

Key Partners

PROJECT LEAD

BrightRidge

ADDITIONAL PARTNERS

EPRI

Johnson City

Tennessee Valley Authority



Timeline

September 2021

Anticipated approvals from Johnson City and BrightRidge boards

August 2022

Equipment delivered

September-October 2022

Equipment installed

November 2022

Equipment live

November 2023

One year of measurement and verification of data; final report



Learn more about this pilot project