



CASE STUDY: Henderson, NV

STARTING THE SMART JOURNEY | CHOOSING A PARTNER

In 2019, The city of Henderson and Cox Business formed a partnership that would create an innovation corridor on Waters Street, in downtown Henderson. This agreement would allow the city and Cox to trial a select list of IoT solutions designed to address the infrastructure needs of the city. Chief among these solutions would be the deployment of smart lighting on 15 standard and 18 ornamental lights. The objective was to test and evaluate how these new components could promote energy savings, as well as enable a variety of operational efficiencies.

The project began with assessing infrastructure conditions, eligibility for bulb replacement and where nema sockets existed. If fixtures had existing nema socket capabilities, a controller could be installed without the need for a new fixture. The controller would capture data on energy usage, allow for dimming schedules to be set and would provide the city with real-time insights into the health of their lighting infrastructure. This new capability would also automate a previously manual process and empower the city to use resources more strategically.

This pilot program successfully demonstrated how smart lighting can be used to achieve more reliable, efficient and responsive operations, as well as setting the stage for a connected and monitored network that can support a wide variety of evolving infrastructure applications. A trial program like this is a win/win partnership; it helps Cox improve its ability to design, implement and scale productive solutions, and it helps the municipality better understand the additional value it can deliver to its residents beyond illumination.

“ This pilot is underway as an R&D test bed to integrate an innovative solution ecosystem. Cox brings useful on-the-ground experience, having worked for years alongside the public works departments of various cities. ”

Alyssa Rodriguez, Director of IT
City of Henderson, NV



CITY OF HENDERSON KEY STRATEGIC PLAN PRIORITIES

IMPROVE
PUBLIC SAFETY &
QUALITY OF LIFE

REINVEST IN
AGING/EXISTING
INFRASTRUCTURE

CREATE FINANCIAL
RESILIENCY &
ECONOMIC VITALITY

ENSURE
RESPONSIVENESS &
DIGITAL INNOVATION

SCOPE OF PROGRAM

12

MONTH PILOT PROGRAM
AUGUST 2020 - 2021

18

SMART LIGHTING CONTROLS
ON MARKET STREET

15

SMART LIGHTING CONTROLS
ON ARKANSAS/NEBRASKA AVE.

KEY SUCCESS FACTORS/METRICS



ENERGY SAVINGS THROUGH
TIMED DIMMER CONTROLS



REDUCE OPERATIONAL COSTS
VIA MAINTENANCE EFFICIENCIES



TRACK OUTAGES THROUGH
DAILY REPORTS & ALERTS

COX | Smart
BUSINESS® Communities

PILOT PROGRAM FINDINGS & METRICS

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By equipping the existing city lights with smart lighting controllers that allow for both dimming schedules and proactive monitoring and maintenance through real-time analytics, the city of Henderson was able to gain substantial savings in both energy consumption and operational efficiencies by reducing false-positive events. They also improved the quality of life and safety for citizens by activating alerts to reduce response time from 6 weeks to 1-2 days through real-time notifications when a light is out via the smart community platform.

REDUCTION IN ENERGY CONSUMPTION & PROJECTED SAVINGS

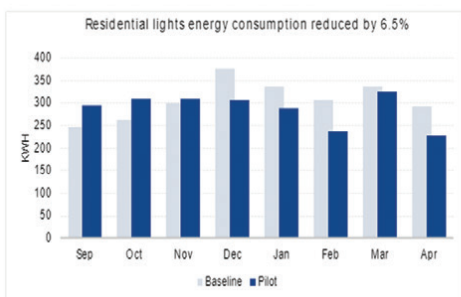
RESIDENTIAL LIGHTS

6.5%

reduction in
overall energy
consumption

\$28

projected
annual savings
per circuit



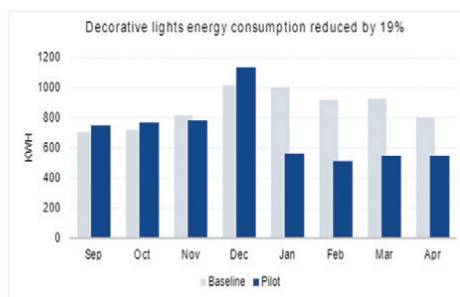
DECORATIVE LIGHTS

19%

reduction in
overall energy
consumption

\$229

projected
annual savings
per circuit



REAL-TIME USAGE & OUTAGE DATA



IN SUMMARY

With a combined energy savings of 16% overall, the City of Henderson could realize these savings across the city's remaining 20k+ lights. In addition, the city staff could realize greater efficiencies and decision-making capabilities with the use of the data the infrastructure is now able to capture, benefiting both the city and citizens alike.

To learn more, email us at smartcomms@cox2m.com