

CITY OF LONG BEACH

**SMART CITIES
PROJECTS FOR A
BETTER FUTURE**

by



IIoT World



Long Beach - Technology for an improved quality of life for its citizens

The Smart City Long Beach projects aim to leverage advancements in technology, data management, and user-centered design in order to improve residents' quality-of-life and promote digital equity. Smart Long Beach will better prepare the city to utilize emerging technologies, which will be deployed responsibly to meet community-sourced needs. With a purpose to foster civic engagement and allow for improvements in service delivery to residents, the smart city project has developed the rightful guiding principles to support this effort.

In 2019, the city of Long Beach was named a Top 10 Digital City in a survey conducted by the [Center for Digital Government](#). This recognition refers to the efforts to build modern technology infrastructure and efficient foundational systems; protect public safety using technology; and improve public engagement through open data and enhanced payment systems.

Challenges

Urbanization is evolving with a variety of challenges that cities must address. Long Beach City faced the difficulty of improving energy distribution, streamline trash collection, traffic congestion, and air quality. Also, other, more sensitive facets of the community had to be addressed, including homelessness.

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“Using IIoT technologies, the city is interested in solving community-sourced challenges that fall under several categories, including:

- *homelessness*
- *mobility*
- *climate change*
- *government transparency*
- *operational efficiency.*

Our smart city initiative will build upon our existing priorities, plans, and programs, such as our [Blueprint for Economic Development](#), [Climate Action & Adaptation Plan](#), and [homelessness task force recommendations](#). We believe a coordinated approach to design, pilot, and propose smart city solutions will address not only the quality of life for Long Beach residents, but will catalyze economic development, improve public safety, enhance visitor experiences, and build a resilient workforce.”

Ryan Kurtzman, the Project Lead for Smart Cities, the City of Long Beach

The project is gaining momentum with the aid of technology, as well as a variety of organizations and individuals, including technology providers, foundations, research institutions, community-based organizations, community members, and city staff.



Photo by [Aleksandar Pasaric](#) from [Pexels](#)

Smart City Projects in Long Beach

To be defined as smart, cities must incorporate several [parameters for functional areas](#), such as governance, energy, buildings, mobility, infrastructure, healthcare, and citizens. Long Beach has focused on integrating most of the smart components above in its projects. In the next pages we will list a few successfully implemented programs.

SMART GOVERNANCE



One fundamental approach of Long Beach is to ensure that opportunities gained from technology are accessible to all, building an inclusive, responsive, and accountable government that proactively supports all communities

Government on-the-go

The [GO Long Beach app](#) was designed to provide Long Beach residents, businesses, and visitors the opportunity to access City Hall 24-hours a day, seven days a week, from anywhere. Residents can quickly submit service requests for issues such as graffiti, potholes, and sign damage. iPhone and Android device users can open the app, select a problem, take pictures, and tap submit - the app knows the exact location and sends the issue directly to city staff. Also, residents can track the status of their requests through the mobile device.

[DataLB](#) was developed to make Long Beach a city of the future. The public GeoSpatial & Open Data Portal allows one to explore, visualize, and download data that has been made publicly available. Residents can also analyze and combine open data layers using Map Viewer and develop new web and mobile applications.

Aiming to democratize the access of newly launched, very innovative companies to government projects, the city of Long Beach has enabled a program called [Startup in Residence](#), which pairs local agencies and young technology firms to solve civic problems. The projects unveiled in 2019 included twenty-two local governments and thirty-nine companies that recently completed a sixteen-week period building digital tools, ranging from online portals that ease resident interactions with government to back-office data management systems. The [tool](#) was designed to provide developers, officials, and the public a better understanding of the development landscape of the city. With dual goals of increasing the city's transparency and promoting economic growth, startups were matched with governmental institutions to provide innovative solutions.

SMART TECHNOLOGY



Seamless Connectivity

The [UpLink Corridor](#) in North Long Beach is the first step to using technology as an economic development tool for students, pedestrians, and business patrons. The public Wi-Fi Internet service allows citizens to connect for up to sixty minutes for free. The project originated in 2015.



SMART CITIZENS



Civic Digital Natives

The [Digital Inclusion](#) Initiative developed by Long Beach – a civic digital natives project - aims to provide access to technology and digital literacy training. The compelling project was designed to give residents access to digital inclusion and equity. Residents would be able to access the internet and digital technologies through capacity supporting programs, like technology jobs and internship opportunities or job preparedness and digital literacy skills development.

Another step to digital inclusion is connectivity through low-cost, high-speed, quality in-home internet services, citywide fiber network infrastructure, as well as free city-provided public Wi-Fi. Free community computer labs are provided by the City to ensure that everyone had equitable access and use of technology devices and other digital resources.

SMART MOBILITY



Smart mobility projects are represented by intelligent infrastructure combined with technology and the active involvement of the Long Beach community. Specifically, the city representatives have organized smart visioning workshops to make Anaheim Street safer for vehicle traffic, pedestrians, and cyclists while making it more appealing for residents, shoppers, and business owners. To develop the [Smart Cities Supercollider Series](#), the city of Long Beach Office of Civic Innovation has formed a public-private collaboration between city departments, public agencies, private corporations, and citizens.

Part of the smart mobility initiatives in Long Beach are also the bicycle and pedestrian counters that display current transportation statistics to the public. The first [Eco-Totem counter](#) was installed in 2016. The totem counts both pedestrians and cyclists via infrared and inductive loops in real-time and displays the daily and annual total counts. In 2019, the city installed the second eco-totem in Downtown Long Beach.



SMART INFRASTRUCTURE

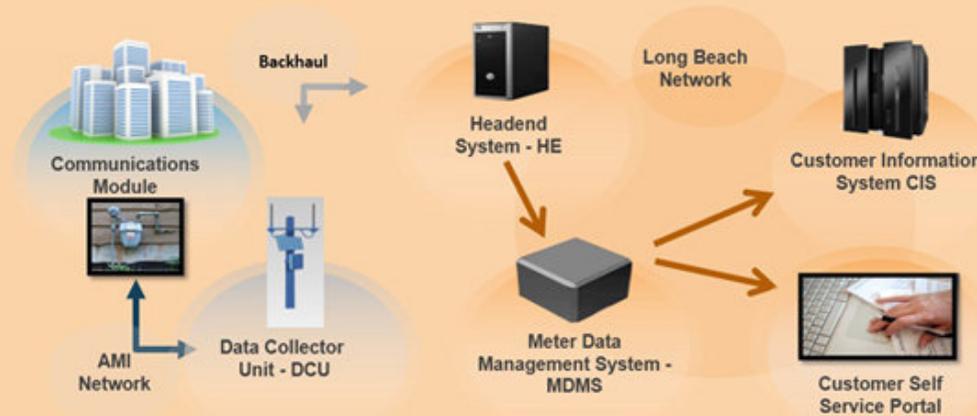


Sensor Networks

The intelligent infrastructure program aims to achieve a multitude of benefits and to be aligned with the upcoming legislation updates in California. The [Automated Metering Infrastructure](#) for gas and water includes an integrated network of smart meters, communication collectors, and data management systems that enable seamless communication between utilities and their customers. Long Beach aims to achieve benefits such as operational cost savings, improved read accuracy, reduction of CO2 emissions, improved network infrastructure to avoid leaks, centralized event monitoring, and increased field service safety.

The smart meter deployment offers cost savings through the reduction or elimination of manual meter reads, which are currently estimated to generate 160,000 annual vehicle trips.

Long Beach AMI Project Overview – AMI Network



Meter Data Hourly metering data is securely transmitted to Data Collection Unit (DCU)	Data Collection DCUs receive and transmit data	Transmittal Consumption information is sent using IP protocol language	Storage Servers are accessed by customer billing & data analytics software	Engagement Customers can view hourly data, informing usage decision & conservation
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Conclusion

The smart projects in Long Beach addressed various community needs in order to improve quality of life. Mobility programs, smart government, connectivity, and operational efficiency have all been developed and implemented to solve the challenges of the city. To better human lives, the programs successfully focused on involving citizens and private or public entities in a joint effort to modernize the community.

Using advanced technology and creating a coordinated approach to propose the smart city solutions, Long Beach commenced government transparency and open data. The smart projects also drive economic development, improve public safety, and enhance environmentally conscious measures. A perfect example of smart implementation in almost all aspects, Long Beach will serve as a comprehensive model to all smart cities of the future.

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