



The City of



Environmental Services

FACT SHEET

San Diego's SMART City Program

In support of its ambitious [Climate Action Plan](#), the City of San Diego has deployed the world's largest smart city sensor platform. The system is transforming the City's existing street lighting infrastructure into a connected digital infrastructure that will lead to significant energy savings, improved air quality and a safer San Diego.

The real-time anonymous sensor data collected by the City of San Diego will be used to develop applications and systems that benefit the community. From pedestrian safety and directing drivers to open parking spaces to mobility planning and optimization, to helping first responders during an emergency, to gunshot detection, and urban and real estate development planning. The open data platform gives the City limitless opportunities to increase safety, enhance business and civic engagement opportunities, optimize municipal systems and create real-time environmental awareness.

Here are some Frequently Asked Questions about the City of San Diego's SMART City Program:

What is a smart city?

A smart city uses different types of electronic data collection sensors to capture and supply information that provide insights into how to manage assets and resources more efficiently. This includes data collected from public activities such as driving on roadways, bicycling through town or parking along the street. The data, collected by devices and assets owned by municipalities and public agencies, is processed and analyzed to monitor, plan and manage traffic and transportation systems, power plants, water supply networks, waste management, law enforcement, information systems, schools, libraries, hospitals, and other community services.

What is a sensor node?

A sensor node, also known as an intelligent node, will be connected to the streetlights. These intelligent nodes can see, hear and feel the heartbeat of a city. The node connects city officials and citizens to the anonymous data collected, allowing for endless applications for the greater good of the public.

Does the smart city platform support the City's Climate Action Plan?

Yes, since the city will use energy-efficient LED lights, it will reduce the amount of energy used, as well as light pollution and overall greenhouse gas emissions (GHGs). The streetlights that have already been replaced with LED lights and sensors are computerized to optimize traffic flow during rush hour, which will also reduce GHGs.



An example of a SMART sensor node.



How much money will the City save in energy per year?

The Intelligent Outdoor Lighting Project makes San Diego one of America's most energy-efficient cities and saves \$2.8 million in annual energy costs due to the more efficient lighting.

Where did the funding for this program come from?

A low interest loan which is paid by the energy savings generated by the LED lighting and adaptive control system retrofits citywide.

Where will the sensors be placed? On every streetlight in the City?

Sensors are systematically placed throughout the city to optimize data at the source. On average, one sensor for four to six streetlights is typically used.

Will the City collect personal data about me?

No personally identifiable information will be collected by the new streetlight systems. The system provides the City with access to anonymous information such as vehicle/pedestrian/bicycle traffic, parking, weather and environmental data.

Why is the City implementing the smart city platform?

The smart city system is transforming the City's existing street lighting infrastructure into a connected digital infrastructure that will lead to significant energy savings, improved air quality and a safer San Diego.

How will the smart city platform make the city safer?

San Diego's smart city sensors are expected to act as a deterrent to crime. Studies have shown that the prevalence of sensors can reduce crime and contribute to public safety. The information will also be used to support the City's [Vision Zero](#) strategy to eliminate traffic fatalities and severe injuries, which will contribute to a safer city.

How will the outdoor LED lights help reduce greenhouse gas emissions?

Each fixture comes equipped with an advanced control system called LightGrid which allows city managers to dim, brighten and check maintenance on the lights remotely to reduce energy waste, GHG emissions and maintenance costs. The City of San Diego has retrofitted approximately 38,000 light fixtures with energy efficient lighting of which, 3,500 are currently equipped with advance lighting control systems.

What are the benefits of the smart city platform?

The system is transforming the City's existing street lighting infrastructure into a connected digital infrastructure that will lead to significant energy savings, improved air quality and a safer San Diego. The many benefits also include:

- Cost Savings
- Improved Parking
- Improved Traffic Flow
- Enhanced Bike Lanes
- Improved Public Safety
- Enhanced Civic Engagement with New Software Application Creation
- Utilized Data Asset Value