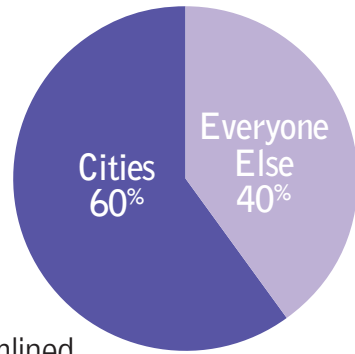


Smart Utilities, Smart Cities

Cities consume about **60 percent** of the world's energy. A smart city works closely with a utility and combines efficiency, streamlined public services and new tools to reduce consumption. Like public power utilities, smart cities know their residents — they identify behavior patterns and shifts in consumption and optimize their resources and infrastructure to create a fluid system.



the world's
total energy
consumption



Vehicle Charging Stations

A major barrier to customers adopting electric vehicle technology is the lack of charging stations. Through a federal grant, **Holland Board of Public Works** in Michigan has installed **18 charging stations** throughout their city.



Broadband

Manassas, Virginia, was awarded the first franchise to deliver broadband over power lines in 2003, using the city's existing power distribution network to deliver **Internet service**.



Smart Grids

Rancho Cucamonga, California, is testing a **microgrid** system at its city hall building that also optimizes a solar system tied to storage. Microgrids connect to the main grid, but also function on their own in a blackout or simply to reduce demand.



Distributed Generation

Cities may rely on multiple, smaller sources of energy, like residential solar installations, in addition to one larger source, like a natural gas plant. **City Utilities of Springfield** in Missouri networked a **solar village** in 2014, supplying lithium-ion batteries to homes with rooftop solar panels.



Streetlights

LEDs reduce power consumption while increasing longevity. **Pascoag Utility District** in Rhode Island recently replaced 56 streetlights with **LEDs** that are managed wirelessly.



Intelligent Buildings

Fort Collins Utilities in Colorado is building a new downtown **municipal campus** for customer service that incorporates battery storage and solar power, and direct current to get the most out of both.



Linked Utility Systems

Many cities are taking steps to link their various utility systems. Public power cities including Seattle, Washington; Taunton, Massachusetts; and Manitowoc, Wisconsin have explored ways to convert **sewage into electricity**.



#PublicPower