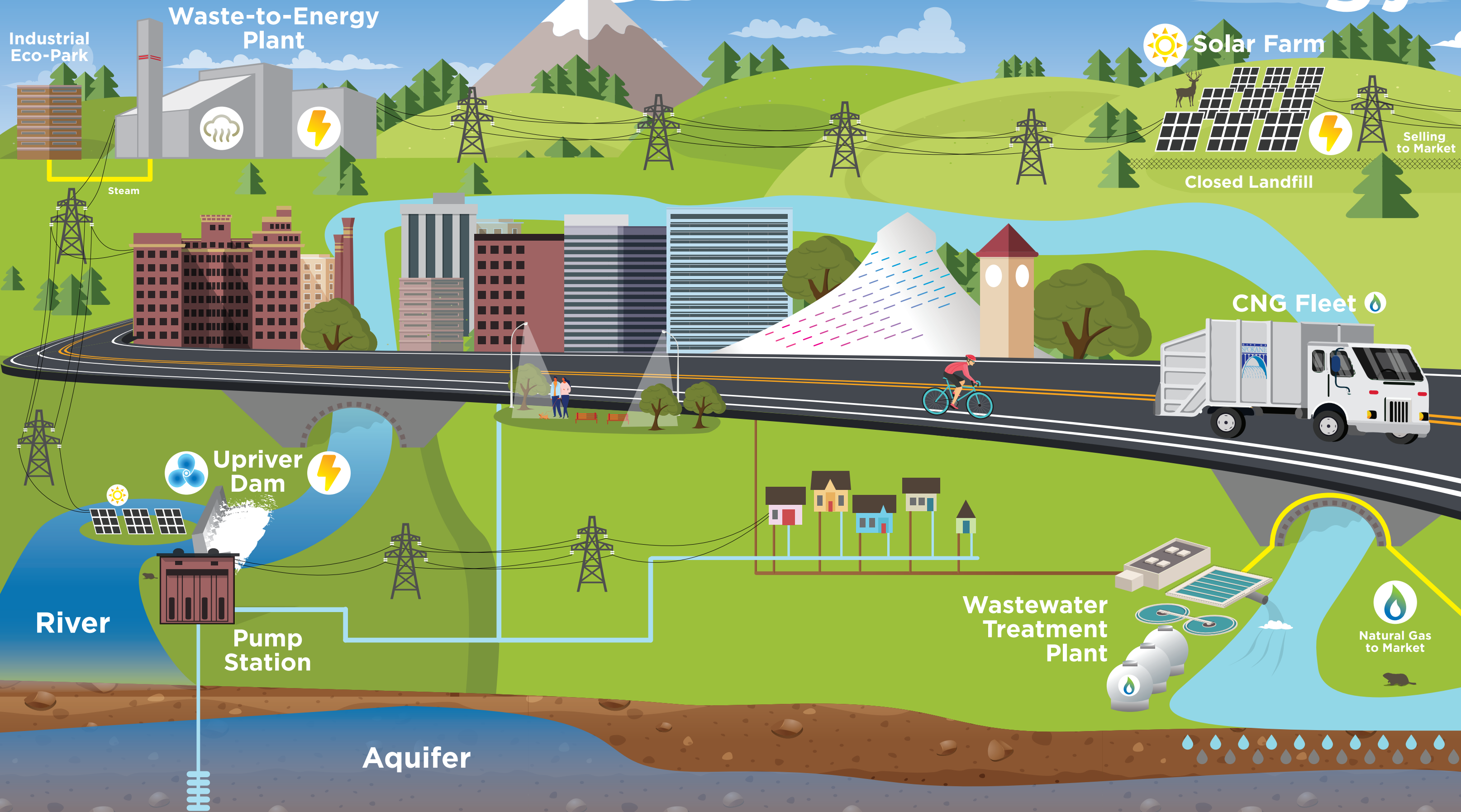




One Energy



The City of Spokane, home to more than 220,000 people, is located in the heart of the Inland Northwest. Our 2,000 employees strive to deliver efficient and effective services that facilitate economic opportunity and enhance the quality of life for all our citizens.


One Energy Spokane Vision

The City’s Division of Public Works leads a number of Citywide Strategic Initiatives including a new sustainable vision for Smart Cities, Integrated Infrastructure, and efficient and effective management of water and energy resources.



The City’s current energy production portfolio consistently places us in the enviable position of being energy net positive. Accounting for all our energy usage, including fuel for our large fleets, we produce an average of 40,000 MMBTUs yearly more than we consume. But the City is looking beyond that to a custom-fit, innovative energy strategy that would provide the potential to scale up local renewable energy resources, add efficiency technologies (including Smart Cities technologies) and other advanced energy infrastructure and potentially generate many millions of dollars in new economic value within the City. These same energy investments, while financially responsible, can substantially shrink the environmental footprint of Spokane citizens and businesses, drawing significant attention to the City’s environmental leadership. This, in turn, attracts businesses and citizens with a shared vision of practical, affordable sustainability.

A comprehensive energy strategy can powerfully animate and reinforce the City’s emerging brand as an innovation leader fostering economic dynamism, environmental quality, and efficient and effective public services.


Current Energy Generating Assets




Upriver Dam: A straight, concrete gravity dam operating in “run-of-the-river” mode. Built in 1884, and replaced with concrete version in 1933. Generates around 70,000 MWh annually with a nameplate capacity of 17.6 MW. Excess generation currently sold to Avista.



WTE: A solid waste and biomass combustion generator with steam generated electricity output. Built in 1991. Processes up to 800 tons of municipal solid waste daily and reduces volume by 90%. Generates around 140,000 MWh annually with a nameplate capacity of 26 MW.





Riverside Park Water Reclamation Facility: A water recycling facility that treats about 34 million gallons of wastewater per day. Originally built in 1958. Membrane technology is currently being added with completion scheduled for 2021 to reduce more pollutants to maintain Clean Water Act standards for all discharged effluent, which is cleaner than the river it discharges to. It generates around 165 million scf of biogas, with about 50% of that used to heat digesters in co-generation process.






Redevelopment of two end-of-life landfills: Southside landfill is a 72-acre landfill that was closed in 1987 and no longer produces a strong enough biogas stream for capture at 76 million scf annually. Northside landfill is a 345 acre landfill that was closed in 1991, but has a 15 acre active cell open to take specific material not suitable for the WTE facility. It also no longer produces a strong enough biogas stream for capture at 228 million scf annually.



New Sustainable Energy Project Clusters





WTE: In concert with the West Plains Public Development Authority that was created jointly through the City and County, support and develop an Industrial Symbiosis Park where energy in the form of steam, solar electricity and material resources are re-purposed within the industrial ecosystem.



Consider the possible addition of solar at Upriver Dam to help manage low hydro time periods, and provide energy for more efficient wells.



At Riverside Park Water Reclamation Facility, pursue production of Renewable Natural Gas (RNG) to fuel the City’s Natural Gas-powered refuse fleet, or to sell through a nearby pipeline. Other sustainable fleet plans include: Vehicle Electrification, Vehicle-to-grid (V2G), and Renewable Natural Gas (RNG) pilots with the County’s wastewater plant.



Evaluate large-scale solar development. Possible locations include repurposed landfills and phased development on PDAs as industrial “cover crop.”

Key Strategic Principles

Collaborative Governance: Optimize Regional Partnerships with Avista, Spokane County, three Public Development Authorities, local higher education institutions, private business and state agencies.

Multiple Benefits: Leverage resources through de-siloing across all City of Spokane departments and divisions. Demonstrated success through the Integrated Clean Water Plan, PDAs and Urbanova/Smart Cities initiatives.

Stewardship Through Conservation: The greenest Kilowatt is the one we never used.

Enterprise-Wide Advances: These are long-term improvements to existing City operations that are necessary to support implementation of new sustainable energy programs and projects across all departments.

- **Energy data management and acquisition for business decisions:** Using our Greenhouse Gas Inventory as the primary accounting tool, track all energy use and generation. Make the data and analysis available to all internal customers using usable dashboards.
- **Energy self-supply:** Investigate and implement energy self-supply of all City generation. To improve resiliency, and our ability to provide critical municipal services in a changing environment, we need to use the energy we generate to offset emissions and power operations.
- **Policy and Legal support:** We are developing the City’s ability to understand and respond to emerging energy legislation, establishing ourselves as strong partners for CETA implementation and leaders in the emergence of the green economy. Activities include seeking re-designation of power generated at Spokane’s Waste-to-Energy (WTE) Facility as renewable.
- **Integrated management of the City’s two PPAs:** Upriver Hydro and WTE steam-to-electricity have previously been managed independently with energy generation as a side benefit to waste disposal and drinking water delivery. Excess power generation is currently sold to Avista under two separate Power Purchase Agreements (PPA). In the future, renewable energy generation will be optimized for the triple bottom line benefit of all our citizens and City utility rate-payers.
- **Clean energy market alternatives:** Identify market alternatives for City-owned generation if energy self-supply proves infeasible.