Leadership & Governance

Business & Community Engagement

Findings & Recommendations

Resource Efficiency & Renewable Energy

Mobility, Land Use & Development

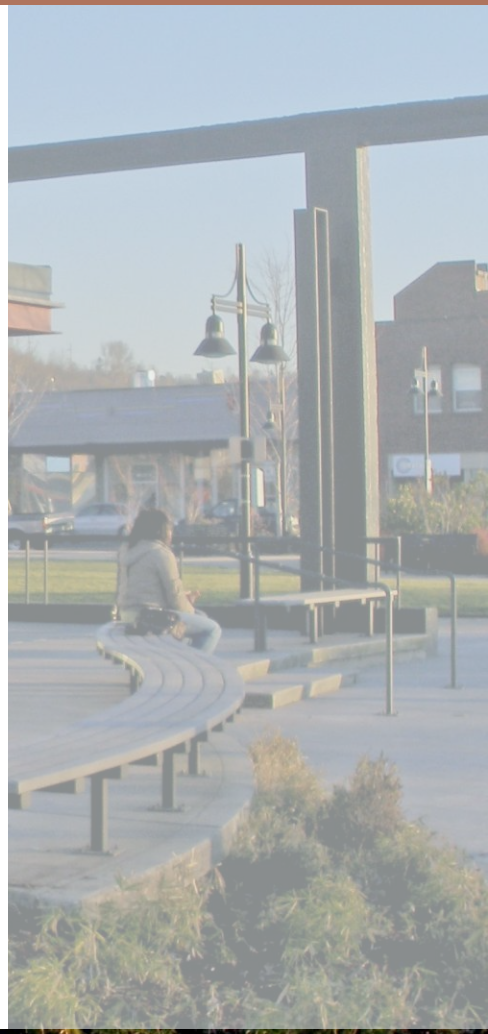
Leadership & Governance

Leadership and governance actions build departmental and community awareness, responsibility, collaboration, and action as key elements of planning and implementation. These actions include establishing citywide goals and policies, promoting a strong green ethic across city departments and staff, leading by example through bold city actions, and engaging in partnerships to foster regional coordination and success. Communication enables Renton to tell its clean economy story, enhancing the Renton brand and building momentum for additional initiatives and actions.

RENTON TODAY

Over the last decade, Renton has established its regional sustainability leadership through commitments and partnerships to address global climate change and foster local clean energy solutions. In 2007, Renton joined hundreds of other U.S. cities in signing the **U.S. Mayors' Climate Protection Agreement**, committing to advance climate protection policies and actions. Renton is a member of the Cascade Land Conservancy's **Cascade Agenda Cities** program and joined **ICLEI—Local Governments for Sustainability** in 2010.

In addition, the City has played an integral role in developing regional certification standards to improve fleet efficiency through the **Evergreen Fleets Advisory Committee**. Renton is a member of the **Puget Sound Clean Cities Coalition**, which promotes alternative fuels and vehicles, fuel blends, hybrid and electric vehicles, and idle reduction. Renton is collaborating with regional jurisdictions to secure funding and advance clean mobility, energy efficiency, and smart grid initiatives through its participation with **Puget Sound New Energy Solutions** and the **C-7 New Energy Partnership**. Renton is also playing an active role in King County's **Sustainable Cities** program.



REGIONAL LEADERSHIP INITIATIVES IN WHICH RENTON IS ENGAGED

The Cascade Agenda

"Cities" program enlists the region's cities to improve the livability of neighborhoods—making them complete, compact, and connected. This program, sponsored by the Cascade Land Conservancy, educates partner cities about how to make smart choices about future growth and provides a framework to improve and share best practices that enable cities to make their neighborhoods better.

ICLEI—Local Governments for Sustainability

is an international association of local governments and national and regional organizations committed to sustainable development. ICLEI provides technical consulting, training, and information services to build capacity, share knowledge, and support local governments in the implementation of sustainable development policies and practices.

Puget Sound New Energy Solutions

brings public agencies, utility providers, cities and counties, think tanks, and civic leaders together to collaborate on new energy service delivery models, technologies, and other innovative energy solutions.

C-7 New Energy Partnership

includes seven neighboring cities (Bellevue, Issaquah, Kirkland, Mercer Island, Redmond, Renton, and Sammamish) to capitalize on proximity, shared goals, and combined resources of the most heavily travelled corridors in the region.

Leadership & Governance

The City has implemented green practices, policies, and actions in its own operations and facilities. Interviewees from every department proudly described a host of green efforts currently underway. Key drivers for sustainability include an overarching green ethic in the community, mandates and requirements, cost savings, and leadership. Barriers to being more green included cost, lack of formal leadership, insufficient information, and other higher priorities.

City interviewees emphasized the need to create a strong foundation to foster clean economy action across Renton's departments and staff as well as to establish a systematic framework to measure accomplishments. For example, the City does not have a citywide sustainability vision or specific goals related to energy and climate. Multiple staff members suggested that the City establish a Green Team to coordinate and advance the efforts currently underway by specific departments and individuals. In addition, staff suggested developing a triple bottom-line tool to evaluate City investments, actions, and desired outcomes.

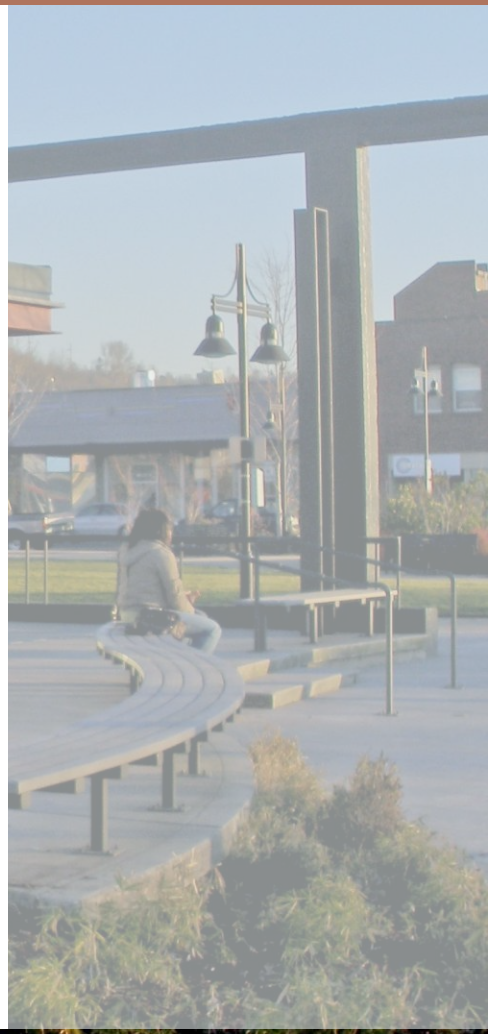
RECOMMENDATIONS

1-1. Formalize Renton's clean economy goals, commitments, and desired outcomes.

This strategy assesses Renton's clean energy accomplishments and opportunities and then defines an initial set of leveraged, high-return actions to move Renton toward a clean economy. The next step is to establish a vision for a clean economy—with goals, metrics, and indicators to track and report progress. As an immediate next step, we recommend that Renton take the following actions:

Establish a **vision and set of desired outcomes and metrics** to provide a citywide focus and drive innovation.

Establish a **framework to evaluate city policies, programs, and investments**, considering the City's clean economy vision and the triple bottom-line of economic, social, and environmental outcomes.



1-2. Establish a Renton Green Team to shepherd the City's clean energy goals and spur staff innovations.

Sustainable approaches require coordination across lines of business and sectors. Governments and businesses alike have successfully used interdepartmental teams, training, and education to harness the creativity and motivation of employees. A Green Team can spur innovation, coordinate the development and implementation of new approaches and solutions, improve efficiencies, and provide accountability for results. A key purpose of this team would be to encourage and empower staff to make suggestions and share ideas that foster innovation and increase efficiencies. Ideally, the Green Team would create both a fun and competitive environment to seek input as well as reward new ideas and successes.

1-3. Showcase Renton's leadership and success.

Renton has already demonstrated outstanding green leadership. Now the City needs to share its story and stimulate others to take action. Sharing the City's sustainability values, commitments, and activities—in both its marketing materials and its plans and policies, like the Comprehensive Plan and the Renton Business Plan—will help the broader community understand both what the City has accomplished as well as its goals and objectives. Telling this story will help to embed clean economy into the City's brand and explain Renton's values and benefits to potential new partners, residents, and businesses.

1-4. Continue to collaborate on regional clean economy initiatives and develop key partnerships for Renton-specific actions.

Renton should continue to work with regional groups such as the C-7 New Energy Partnership, King County Sustainable Cities, and Eastside Sustainable Business Alliance to share best practices and leverage outcomes, especially when pursuing federal funding. Renton also should establish new partnerships to implement Renton-specific actions. For example, Puget Sound Energy is interested in expanding community and business efficiency programs and Seattle City Light is expanding its Powerful Neighborhoods direct-install program to West Hill/Skyway. Another opportunity is Climate Solutions' New Energy Cities program (see sidebar). Renton's local employers will be important allies to engage in advancing clean economy goals.

Potential partners and initiatives for advancing clean economy actions

Climate Solutions works to accelerate practical and profitable solutions to global warming by galvanizing leadership, growing investment and bridging divides. Its **New Energy Cities** program is catalyzing pioneering communities to take charge of their energy future and drive investment toward a clean, renewable, super-efficient energy system that generates significant local economic development.

To become a Pioneer City, a community must have the following:

- ***Bold, innovative political leaders***
- ***Local utilities willing to collaborate***
- ***Business community that sees the value of investing in clean energy***
- ***An engaged citizenry that wants to embrace a clean energy future***

Built Green is an environmental building program of the Master Builders Association, developed in partnership with local agencies. This network of architects, builders, developers, subcontractors, suppliers, lenders, and real estate agents are working together to provide consumers easy-to-understand rating systems, which quantify environmentally friendly building practices for remodeling and new home construction.

Green efforts are underway in Renton's business community

Energy and water efficiency. Most larger organizations have worked with PSE to implement energy efficiency measures targeting buildings, lighting, and equipment. Examples of innovative approaches to water-use efficiency and re-use include PACCAR, Renton School District, and Boeing. Water efficiency appears to be an area ripe for further improvements (e.g. low-flow sinks and toilets).

Waste and materials use. With few exceptions, interviewees reported that they had established recycling programs at their workplaces. Interviewees highlighted composting and waste reduction as key opportunities. Companies such as Boeing and PACCAR are undertaking innovative waste prevention and reduction efforts. Sharing these successes throughout the community could be valuable. Most organizations do not include sustainability factors in their procurement decisions, but Wizards of the Coast is one example of a firm examining the lifecycle and sustainability of its product lines.

Renton's businesses, institutions, and residents are critical to creating a thriving clean energy economy. Together, they fuel the local economy with jobs, products, services, and revenue—as well as add to the City's footprint of resource use and pollution.

RENTON TODAY

Cascadia interviewed leading Renton businesses and institutions to learn about their perspectives and actions related to the clean economy and identify future partnership opportunities. Businesses and institutions interviewed included Aero-Plastics, Boeing, IKEA, PACCAR, the Renton Chamber of Commerce, the Renton School District, Renton Technical College, Valley Medical Center, Walmart, and Wizards of the Coast. These organizations represent a sample of the tremendous assets within the Renton community that appear eager to work with the City to advance a cleaner and more sustainable community. Interviews with these key employers indicate a strong interest in and commitment to being "green."

Several organizations are leading the way with cutting-edge sustainability actions, including clean fuel development at Boeing, green information technology solutions at Wizards of the Coast, energy efficiency training programs at Renton Technical Collage, and energy upgrades to equipment and buildings at most of the larger establishments (see highlights of Renton Business Leadership on page 33). Conversations with interviewees revealed the following findings:

All organizations expressed a genuine appreciation for outreach from the City related to clean energy and sustainability. Uniformly, they were interested in additional dialogue on these topics.

All interviewees responded positively to the contact initiated through this project and were eager to continue a broader community dialogue. Most organizations had a positive perception of the City, but many were unaware of Renton's sustainability efforts.

Business & Community Engagement

Most interviewees had a strong awareness of sustainability issues. However, larger organizations generally had more resources available to improve efficiencies and address broader initiatives and had a greater awareness of clean economy opportunities.

The larger organizations all had instituted innovative sustainability projects, while smaller organizations were more constrained by short-term bottom-line financial considerations. Larger organizations also emphasized financial feasibility but had a longer time horizon to evaluate return on investment.

Renewable energy

Renewable energy appears to be the least developed area of the clean energy economy in Renton. Few examples existed of renewable energy investments, and interviewees had little awareness of information on the business case to support solar, wind, and other renewables at an institutional level. However, a few organizations were exploring small-scale wind generation. Interviewees are relying on Puget Sound Energy to make positive strides.

Transportation & fleets

Renton employers stressed transportation solutions as critical: the need for clean and efficient transportation to address congestion, bottlenecks, inefficiencies, and gaps in public transit service. Fleet fuel efficiency is one future opportunity. Only a few organizations (Valley Medical Center and Boeing) had made targeted investments in high-efficiency, hybrid, or zero emissions vehicles. Employers cited electric vehicles (EVs) as an exciting opportunity and expressed awareness of EV efforts in the region, due in part to the City outreach. A few were planning to install EV infrastructure in parking stalls. All interviewees wanted more information on the region's EV Project.

Organizations with executive level commitment had the most ambitious initiatives.

Having a staff champion helped, but organizations with CEO or other executive team commitment appeared more advanced.

Most organizations expressed interest in a community or business roundtable to share best practices, coordinate and support broader outreach efforts, and help the City establish priorities.

Support for a green recognition program was also strong.

Business Leadership

Boeing is conducting research and testing on alternative bio-based jet fuels made from algae and other feedstock. Over the last three years, Boeing has reduced its solid waste by 30 percent. The company is now looking to reduce waste upstream from its suppliers, increase recycling, and compost to achieve a 75 percent recycling and reduction target by 2012. Boeing also has saved energy through its lighting management system and invested in cleaner vehicles.

PACCAR offers a number of hybrid engines for its trucks. The company has installed rain sensors to decrease water use for irrigation in the summer and has implemented changes in chemicals to reduce rinse requirements. PACCAR recently incorporated non-heat cure paints, motion-control lighting in offices, and energy metering. The company has been composting and recycling extensively in the process of implementing a Zero Waste to Landfill program.

Wizards of the Coast is leading a study on energy efficiency improvements in information technology. The company is assessing the lifecycle and sustainability of its products. Wizards recently decided to abolish all wire ties and is striving to integrate environmentally friendly and recyclable content in its product lines. Before moving into its current building, Wizards worked with its property manager to upgrade building energy efficiency.

IKEA gave every U.S. employee a bicycle as a holiday bonus in 2010 to encourage bike commuting, and the Renton store is considering measures to encourage alternative commutes based on a recent employee survey. The Renton IKEA invested in a lighting control system and upgraded 78% of its lighted area to energy-efficient lights. The Renton IKEA finished in the top five for environment and recovery in IKEA's nationwide "Natural Step" process. The store's recovery department achieves a 70 percent recovery rate.

GreenSource is a green leader in the clothing apparel industry, using sustainable fabrics certified to the Global Organic Textile Standard, which prohibits toxic chemicals during the processing phases. The company has worked with textile mills to build schools and healthcare clinics for workers and their families in Iran, Afghanistan, and Pakistan.

Walmart has established three overarching sustainability goals: 1) utilizing 100 percent renewable energy, 2) creating zero waste, and 3) selling products that sustain people and resources. Between February 2008 and January 2009, U.S. Walmart stores diverted more than 57 percent of the waste generated by stores and facilities. Commitments to renewable energy and sustainable products are reflected in such actions as the addition of solar panels to store rooftops in the U.S. and the recent decision to source local produce. At the Renton Walmart, great strides have been made with the reuse of freight boxes and the recycling of all in-store lighting.

RENTON EDUCATIONAL AND INSTITUTIONAL LEADERSHIP INITIATIVES

Educational Leadership

Renton School District is building an "alternative learning center" that will include water cisterns for toilet flushing and landscape watering, a public LED display with building performance metrics, and renewable energy sources such as photovoltaic and geothermal. The District recently received $2.4 million in state funds to pay for improved HVAC, water conservation measures, inefficient lighting, new boilers, and other building improvements.

Renton Technical College is working on a regional community college collaborative, the Sound Energy Efficiency Development (SEED) Program, to develop training and certifications for energy efficiency and weatherization audits. The college has implemented energy upgrades throughout its campus, saving energy and allowing the college to monitor energy costs. The college is interested in offering hybrid vehicle training in its automotive classes but needs hybrid vehicle donations. Renton Technical College has the skills and interest to work with property managers on energy efficiency and could be a valuable partner with the City on commercial energy initiatives.

Institutional Leadership

Valley Medical Center has overhauled a central utility plant to be more energy efficient, including installing more efficient boilers and chillers. The medical center partnered with a local car dealer to help employees purchase hybrid vehicles, resulting in an estimated doubling of hybrid cars in the employee lot, and it plans to install 16 electric vehicle charging stations. Valley Medical Center has also made significant efforts to support local businesses, such as purchasing patient furniture manufactured in Kent.

RECOMMENDATIONS

The recommendations below focus on how the City can engage its businesses and residents to help Renton advance a clean economy agenda and support a thriving local business community.

2-1. Engage Renton's leading employers in a dialogue on the clean economy and sustainability.

Several organizations suggested that city staff visit companies to "get to know them." One-on-one meetings with Renton's major employers provide an opportunity for sharing the City's accomplishments and goals and for establishing a dialogue with the business community. This outreach can help advance both clean energy efforts and broader economic development goals to retain and support a thriving business base.

2-2. Organize and facilitate roundtables with Renton's business leaders.

Interviews with Renton employers indicate a strong interest in learning from and sharing success with others. Many business leaders responded positively to the idea of a roundtable or similar forum. Seattle has been successful in engaging its business leaders in climate protection goals through the Seattle Climate Partnership. Similarly, Puget Sound Energy is working closely with Eastside business and government leaders to provide a similar forum on clean energy and sustainability. The City should either actively promote the Eastside group to Renton leaders or partner with local leaders to establish a Renton-specific business group focused on clean economy and sustainability topics.

Tools for engaging and supporting the business community

As part of its business retention strategy, **Seattle's Office of Economic Development** established a 2011 goal to visit 700 medium-sized businesses in Seattle. Working in partnership with a number of community organizations, the City meets one-on-one with major employers to learn about needs and identify opportunities to help these businesses to expand and grow.

Seattle Climate Partnership is a voluntary pact among Seattle-area employers to take action to reduce their own emissions, and to work together to help meet the community-wide goal. Members make greenhouse gas reduction commitments and benefit from a suite of tools, services, recognition, and networking opportunities.

The Eastside Sustainable Business Alliance is a fusion of regional businesses, local governments, and utilities dedicated to advancing sustainable operations and positive community impacts. The partnership provides a plethora of benefits to its members, including technical tools, idea-sharing, marketing opportunities, events, roundtables, expert advice, and best practices.

Northwest Energy Angels can help connect clean technology entrepreneurs with experienced clean tech investors.

2-3. Develop a green guide for Renton's business leaders.

The City should consider developing a simple resource guide in both hard copy and online to support local business actions on resource efficiency, alternative transportation, and greenhouse gas reductions. Partnerships with relevant City departments, Puget Sound Energy (PSE), and King County's Commute Trip Reduction programs could provide resources and support. PSE in particular is interested in how to work with local governments and smaller businesses to achieve energy efficiency goals.

2-4. Support the business community in facilitating local and regional transportation solutions.

Interviews with Renton employers highlight widespread interest in moving forward with community transportation solutions. Congestion, bottlenecks, and limited access to public and alternative transportation hinder business success and employee satisfaction. The transportation issue arose in every business interview. We recommend that the City quickly develop a strategy to engage the business community around transportation with the twin goals of implementing tools to address immediate problems as well as forming a durable partnership to advocate for longer-term solutions through policies and infrastructure investments.

2-5. Consider developing a green recognition program for Renton's community leaders.

Similar to Kirkland's Green Business Program and Seattle's Resource Venture program, Renton could recognize local employers for their environmentally friendly practices. Such a program could take many forms including building on Renton's *Shop Renton, Buy Ahead of the Curve* campaign, leveraging the C-7 New Energy Partnership, or aligning with broader countywide efforts such as King County's Sustainable Cities, EnviroStars, and Master Builders programs. One ripe opportunity is for Renton to engage its business community in a new initiative involving ICLEI, the Eastside Sustainable Business Alliance, and Seattle Climate Partnership to spur an East-West **Green Business Challenge** to reduce emissions and increase efficiencies.

Local efforts to attract and support greener businesses

The City of Kent is capitalizing on its niche as a carpet distribution center to serve as a national carpet "hub" and attract new **carpet recycling industries** and clean economy jobs. King County Solid Waste Division's LinkUp Program has been working closely with Seattle Public Utilities to expand local carpet recycling and divert this material from landfills. Now, through a partnership with the Washington State Department of Commerce and the Kent Office of Economic Development, the collaboration is helping to identify appropriate sites in Kent for national companies looking to establish facilities to process used carpet for recycling.

In Auburn, officials and staff have been working to establish public-private partnerships to attract and incubate clean tech businesses to Auburn's **Environmental Park District** (EPD). One biotech firm is located in the EPD and a group of nanotech scientists is moving into the EPD. Auburn's future plans include establishing a "green" incubator building in the EPD.

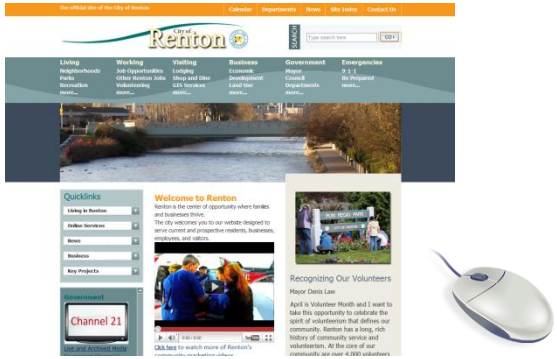
Kirkland's Green Business Program is an incentive program created in partnership between the City of Kirkland, the Kirkland Chamber of Commerce, and Puget Sound Energy to recognize licensed Kirkland-based businesses for their environmentally-friendly practices across 7 lines of business: green building, waste reduction and recycling, water conservation, energy efficiency, transportation, pollution prevention, and green power.

2-6. Continue to develop and market tools and incentives to attract new businesses—particularly clean technology companies.

Renton already offers key benefits and services to businesses considering locating in the city. Renton businesses can benefit from low taxes, affordability, access to key transportation corridors, streamlined permitting, and personalized assistance by competent city staff. Accordingly, Renton is well-positioned to effectively capture clean economy jobs and industries. With the region's focus on clean technology, Renton can identify its own local assets and strengths to spur development of its own clean economy. Clean tech industries continue to grow and offer community benefits such as living wage jobs, reduced waste and pollution, and new technology innovations. As indicated in the sidebar, a number of local governments are putting partnerships in place to attract and support local businesses and industry clusters.

2-7. Spur local green jobs.

Connecting working families to the clean economy creates good jobs, restores communities, and improves our environment**.** Renton is fortunate to have a world-class employer base, Renton Technical College, and other local institutions working to ensure that residents have access to training and skill-building and employers have access to a capable local workforce. The City should provide leadership for delivering tangible green economy benefits to workers and employers in Renton. In addition, City-led efforts to create demand energy efficiency services will spur real opportunities for graduates of Renton Technical College's energy training programs. ICLEI, Green for All, and several regional partnerships are key resources for the City as it engages in these efforts.



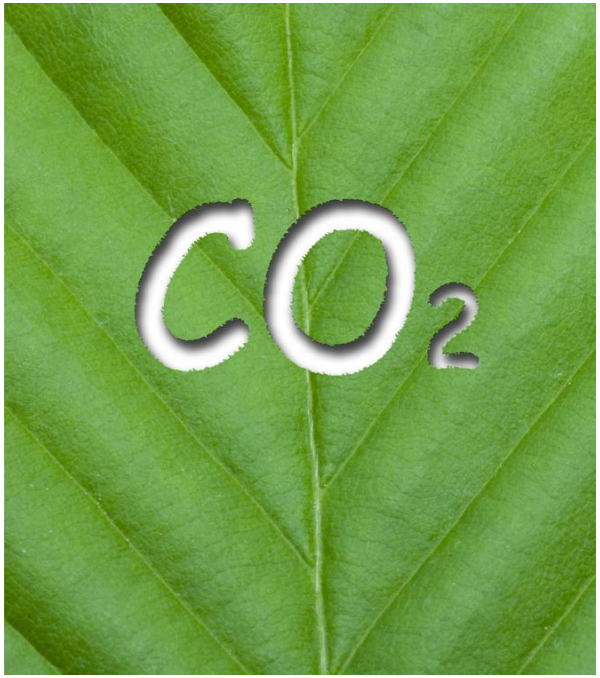
2-8. Provide green resources for residents on Renton's website.

To establish Renton's leadership and facilitate community action, the City could provide information on actions community members can take to support a clean energy economy. Currently, Renton's Neighborhood Program provides a connection between the City and its residents. Renton should use this program or a similar structure to help residents identify clean energy strategies for their homes or small businesses, understand their concerns in implementing these strategies, and provide feedback on government programs.

2-9. Facilitate a community dialogue around a broader "Clean Economy Agenda" for Renton.

As the City defines its clean economy goals, it will be helpful to facilitate a broader conversation about the community's vision, goals, and actions related to the clean economy, sustainability, and "green" initiatives. For example, other local initiatives include the City of Shoreline's *forevergreen* initiative, Issaquah's *Sustainable City Indicators*, and Edmonds' partnership with Climate Solutions to build a clean energy community. Each of these efforts involved broad community engagement to define goals and develop a framework to achieve outcomes.

For example, as part of Climate Solutions' New Energy Cities, over 60 Edmonds community leaders, including the Mayor, the City Council President, the General Manager of Snohomish PUD, and other business leaders and citizens recently convened to explore how the City can reduce its greenhouse gas emissions levels to 25 percent below 1995 levels by 2035. Participants are helping to creating a roadmap that charts implementation steps for Edmond's new energy future.



Resource Efficiency & Renewable Energy

***Resource efficiency**—covering energy, water, and materials—can be a cost-effective way to advance a clean economy and a more sustainable community. Using resources wisely and selecting environmentally preferably products conserves natural resources, protects human and ecosystem health, reduces greenhouse gas emissions, and saves money.*

*Generating **renewable energy**—from the sun, wind, water, earth, and waste materials—also saves resources, reduces emissions and waste, and supports community resilience and autonomy.*

RENTON TODAY

Procurement

Renton's current procurement policies are decentralized and do not include specifications for green products or environmentally preferable purchasing (EPP). Interviewed staff members mentioned the value of a long lifespan for products (durability), and some staff referred to a prevailing opinion that recycled products have shorter life spans. Interviewees shared several examples of environmentally preferable procurement efforts including the following efforts:

The municipal golf course uses driving range mats made from **recycled tires**, and its restaurant offers **local food**.

Contractors on Renton's **road construction jobs use recycled asphalt and concrete**.

The print shop recently started purchasing **recycled content paper**.

Cooperative Solar Energy in Edmonds

The City of Edmonds recently established a cooperative solar power program. This cooperative is leasing space on the rooftop of the Parks and Recreation Department to install solar panels. This installation should provide a significant share of the department's electricity and save more than $30,000 over the next two decades. Investors in the co-op include local residents and businesses, which buy shares managed by a local business called Tangerine Power. Key steps in this process included the City Council's endorsement of using city-owned rooftops to capture solar electricity, state incentives for participants in community solar projects, and the efforts of a community group, Sustainable Edmonds.

Energy efficiency, renewable energy & water efficiency

The City has taken significant steps to improve building and facility efficiencies, but additional opportunities remain. Staff members are exploring relationships with energy service companies (ESCOs) to undertake additional building efficiency projects. The greenhouse gas inventory shows that commercial and residential energy use per resident in Renton is higher than in several local comparison cities, suggesting opportunities for significant savings.

Renton has leveraged federal funding and utility rebates to implement energy efficiency measures, including the following efforts:

Renton updated the heating and cooling system at the former City Hall (200 Mill Building), increasing its Energy Star Score from 18 to 66 and saving the City $50,000 annually. PSE's Building Energy Optimization Program, along with other utility programs and rebates, helped fund the new HVAC system as well as lighting and plumbing motor upgrades.

The City is using federal funding to upgrade more than half of Renton's 121 signalized intersections to more efficient LED lighting.

Information technology staff are increasing energy efficiency. Examples include buying more efficient Energy Star equipment, setting computers to save energy (sleep) when not in use, using duplex printing, and investing in server virtualization and a more efficient phone system.

Renton is providing residents with Home Energy Reports that highlight energy use compared to their neighbors. These reports—provided in partnership with C-7 cities, Puget Sound Energy, and OPOWER—have been shown to yield energy savings elsewhere.

The City is working with King County to conduct heat transfer and energy recovery from sewage. In the private sector, Boeing currently uses secondary effluent from King County's Renton Wastewater Treatment Plant to heat a building. The county treatment plant also participated in a demonstration project to recover energy from methane gas.

Renton is actively promoting water conservation and habitat protection efforts as a member of the Partnership for Water Conservation. The City helps residents reduce water consumption by identifying leaks and changing landscaping materials and practices. The award-winning municipal golf course uses recycled water to clean golf balls and has reduced irrigation needs through automated control systems and more efficient watering techniques.

Materials, waste, and recycling

Renton is undertaking waste reduction and recycling efforts in both its operations and its community programs and services, including the following examples:

With an impressive **single-family residential recycling rate of 70 percent**, Renton is a regional leader in actions and policies to reduce waste, recycle, and compost.

Renton collects **residential food waste weekly and offers recycling to all sectors**, which enabled the City to decrease garbage collection to every other week.

The City's contracted hauler, Waste Management, has invested in a new fleet of collection trucks that **use cleaner compressed natural gas**. All other service vehicles are using a biodiesel blend fuel.

The City implements **annual events to facilitate reuse** of materials, including building supplies, electronics, sporting goods, and furniture. Renton Parks uses **green clippings and tree chips as mulch** and the **golf course redistributes aeration cores**, helping to keep organic nutrients in the soil.

The new Tiffany Park facility was **constructed using recycled materials**, including wood from the previous building and recycled concrete.

The Public Works department **reuses backfill** from rebuilding lift stations and installing pipes. Road sweepers **reuse sand** from the road and use leaves collected to produce **compost** for city projects or area landscapers.

With far lower recycling rates for the multifamily and commercial waste streams, many opportunities remain to reduce waste and divert materials from the landfill. The commercial sector is particularly ripe for improvement. Cascadia conducted additional analysis to identify key commercial recycling opportunities and found that the food service industry presents one of the biggest diversion opportunity. Other potential sectors include business services, medical/health, and other professional and general service sectors. Specific recommendations for diverting commercial waste appear in Recommendation 3-5.

RECOMMENDATIONS

3-1. Streamline procurement and incorporate environmental guidelines into purchasing policies and contracts.

As a facility manager and consumer, the City has a tremendous opportunity to create local demand for greener, more energy-efficient products. Some criteria or categories to consider when developing a green purchasing strategy include:

- **Energy** – embodied and end-use energy
- **Hazardous Substances** – the production and use of toxic substances in both indoor and outdoor environments and disposal
- **Air Quality** – indoor and outdoor air quality impacts from production, transport, and use
- **Water** – consumption and pollution of water
- **End-of-Life Management** – design for recyclability, remanufacture, and disposal issues
- **Social Responsibility** – corporate social responsibility considerations throughout a product's lifecycle, including labor rights, human rights, and community involvement

3-2. Establish energy performance standards and reporting for city buildings and pursue additional energy efficiency opportunities.

Renton can lead by example by establishing incentives or mandates to require high-performing public buildings as well as energy performance disclosure using free energy management tools such as Energy Star's Portfolio Manager. The state energy code requires that nonresidential buildings greater than 50,000 square feet (SF) disclose energy performance and the threshold will decrease to 10,000 SF in 2012. Establishing city standards now to measure, track, and reduce energy use

Example Procurement Policies

Pierce County Environmental Purchasing Policy

www.co.pierce.wa.us/xml/abtus/ourorg/bnf/environmental%20purchasing%20policy.pdf

King County Procurement–Sustainable Purchasing

www.kingcounty.gov/operations/procurement/Services/Environmental_Purchasing/Products.aspx

City of Seattle–Sustainable Purchasing Resources

www.cityofseattle.net/environment/purchasing.htm

StopWaste.Org–EPP Model Policy

www.stopwaste.org/home/index.asp?page=439

Certifications and Standards

EPA WasteWise certification

www.epa.gov/epawaste/partnerships/wastewise/about.html

will prepare Renton and the broader community for these requirements as they come on line. Additional energy efficiency opportunities for the City to pursue include following:

Partner with PSE or an energy service company (ESCO) to identify cost-effective retrofit opportunities in targeted buildings, including lighting upgrades. The greenhouse gas inventory highlights the Henry Moses Aquatic Center, Cedar Trail Park Restroom, Phillip Arnold Park Restroom, and Liberty Park Community Building as opportunities for energy efficiency upgrades. Due to generous rebates, lighting upgrades tend to be the most cost-effective investment. Rebates may end this year for replacing T12 fluorescent tubes with more efficient T8 lamps, so the time is ripe to work with PSE to upgrade these fixtures now.

Pursue continued improvements in green computing and information technology (IT). Green IT solutions is a key business topic. As the City implements its own efforts, it should reach out to Wizards of the Coast to benefit from its work and share this information with the broader community. This could be a featured topic of a business roundtable (see Recommendation 2-2).

Implement additional energy-saving measures in traffic and street lighting. Renton is upgrading nearly half of its traffic signals to efficient LED lighting, and additional investments could yield further savings. The City of Portland's traffic signal upgrade investments paid for themselves in less than three years. Renton should further evaluate public lighting levels, new street light technologies, and public safety needs to assess energy-saving opportunities associated with street lighting levels, which currently go beyond federal safety requirements.

Consider opportunities for district energy approaches in planning new infrastructure. In developing large parcels (such as Boeing's excess capacity), opportunities may exist to gain efficiencies through district heating and cooling. The City may be able to promote or facilitate such efforts.

3-3. Team with PSE and other partners to implement weatherization and energy efficiency efforts throughout the Renton community.

Renton could build off current efforts to work with PSE on the Home Energy Audit Program and launch more comprehensive energy efficiency services to Renton's residents and businesses. A number of new community energy pilots are underway in our region and could inform such an effort (see following page). Examples include direct-install of energy saving devices, subsidized home and business energy audits, and affordable loans to finance energy upgrades. Implementing such efforts in Renton could bring additional energy savings and support local demand for the graduates of Renton Technical College's energy efficiency programs.

A SELECTION OF REGIONAL COMMUNITY ENERGY PROGRAMS

Powerful Neighborhoods is a Seattle City Light program to install energy efficiency measures through door-to-door outreach, targeting seniors, non-English speaking households, low-income residents, and other customers who might not have participated in energy conservation programs. First piloted in Seattle, Powerful Neighborhoods is now moving south to additional Seattle City Light communities.

SustainableWorks
Conserving Energy. Creating Jobs.

SustainableWorks is a community-based non-profit that provides reduced cost energy audits and retrofits in various communities. The program uses utility incentives and stimulus funds to provide customers with greatly reduced-cost audits and home energy efficiency improvements and low-interest financing is available.

RePower Bainbridge is a three-year community wide energy efficiency campaign designed to help Island homeowners and businesses reduce energy- and costs- through energy efficiency to become more energy independent and sustainable.

COMMUNITY ENERGY CHALLENGE

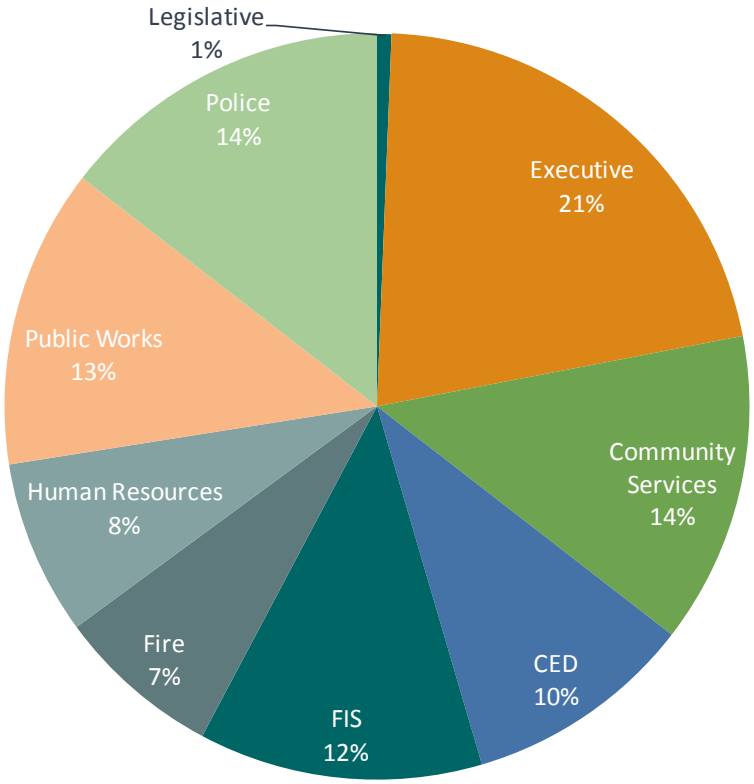
The **Community Energy Challenge** is a one-stop shop for achieving energy efficiency from start to finish in Bellingham/Whatcom County. Coordinated by a partnership involving non-profits, utilities, local governments, and lenders, the program offers residents and businesses energy assessments, assistance with utility and tax rebates, accessible financing opportunities and top quality contractors with 100 percent quality control.

Thurston Energy strives to be a pathway to savings by identifying energy efficiency opportunities, prioritizing them in order of effectiveness, recommending local contractors, and helping line up rebates, tax incentives, discounts and financing to pay for improvements. Thurston Energy is a federally-funded program of the nonprofit groups Thurston Climate Action Team and Thurston Economic Development Council.

COMMUNITY POWER WORKS

Community Power Works is a neighborhood-based program that helps central and southeast Seattle residents make energy-efficient improvements to their homes. Fair, affordable loans and a variety of utility and government rebates are available to qualifying homeowners.

Copier Paper Use by Department
Total: 2 million sheets



3-4. Incorporate renewable energy generation into City projects and foster private-sector investments.

Consider distributed generation opportunities, where practical, such as rooftop systems for solar photovoltaic, solar thermal (hot water), and wind generation. Facilitate private-sector and institutional investments in renewable energy generation, such as through incentives, supportive codes, and expedited permitting.

3-5. Advance waste prevention and diversion of materials in the City's own operations, with contractors, and through targeted efforts in specific sectors.

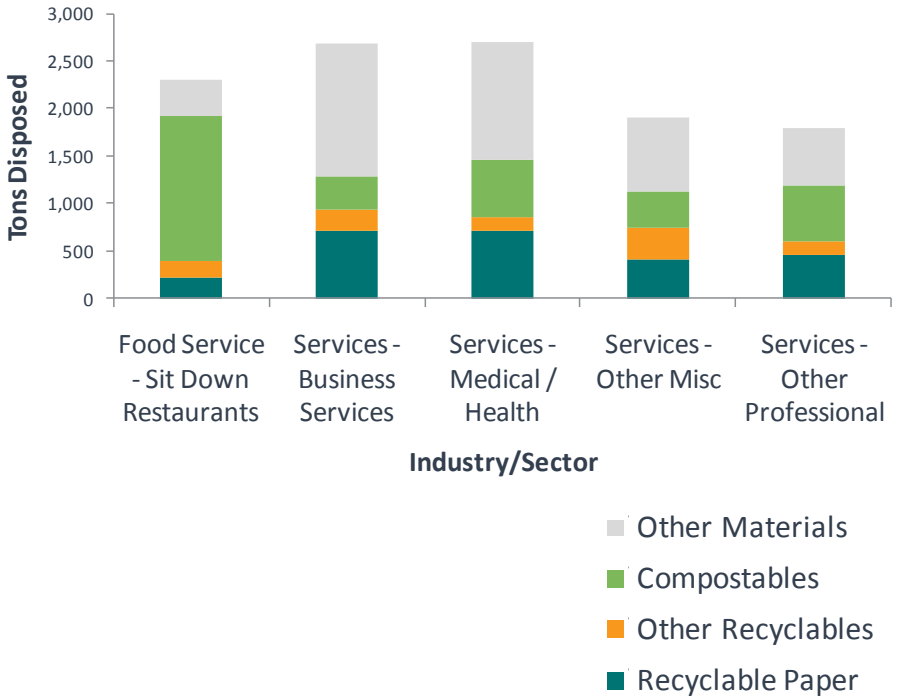
Key opportunities to improve recycling rates and save money include the following:

> Conduct a City "paper cut" challenge to reduce paper use and save money, resources, and emissions. The City uses an estimated 2 million sheets of paper annually (see breakdown by department in sidebar). A fun interdepartmental contest could help motivate employee action to reduce paper use.

Measure and track waste generated at City facilities and look for new organics recycling opportunities at Renton facilities and special events. Waste generation data from City facilities were not collected as part of the greenhouse gas inventory because the City does not have this data. Renton should explore ways to monitor solid waste generation at its own City facilities for future inventories and tracking. In addition, the City should build on the successful residential organics recycling program and look to implement composting programs at City facilities as well as public venues such as the Farmers Market and Renton River Days.

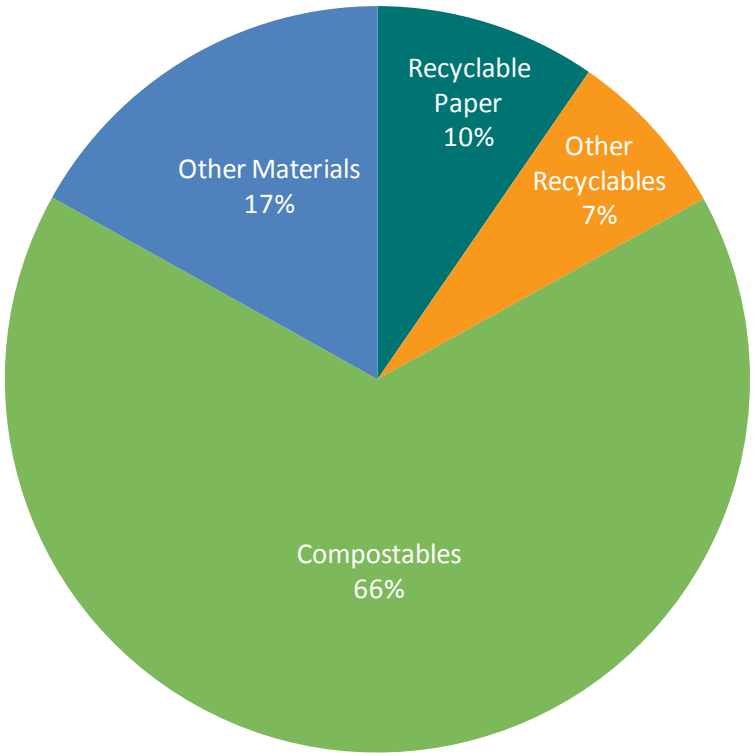
Provide outreach and assistance to targeted sectors to increase commercial recycling rates. Based on estimates of commercial disposal,[2] the five sectors with the highest potential for solid waste diversion collectively account for nearly half (44%) of the total tons disposed from all of Renton's businesses (Food Service-Sit Down, Medical Health Services, Other Professional, Business Services, and Other Miscellaneous Services). Estimated diversion potential of these five sectors sums to 6,986 tons, representing 61 percent of these sectors' solid waste and 27 percent of all waste from Renton's businesses (see sidebar). Renton could target the largest businesses in these "low-hanging fruit" sectors to maximize diversion.

Sectors with the Highest Waste Diversion Potential



[2] Calculations and results for Renton's commercial waste were developed using King County's Waste Generation model.

Renton Food Services, Sit-Down Restaurants
Disposed Waste Composition and Divertability



Such a program could increase source-separated commercial diversion, which produces the cleanest and most valuable materials for end-use processing.

Work with haulers and composting facilities to identify composting opportunities for Renton food establishments. Renton's 250+ food establishments are among Renton's five most waste producing sectors, with 2,309 tons of solid waste disposed annually.

Much of this sector's solid waste could be diverted: the food establishment sector holds the highest diversion potential in Renton, both in absolute tons and by percent of sector's total disposed waste. Of the 2,309 tons of solid waste disposed annually by Renton's food establishments, 1,919 tons, or 83%, of disposed solid waste could be recycled (391 tons) or composted (1,527 tons). Renton should explore opportunities to implement a commercial food scrap and organics collection and processing program for this sector.

EPS Ban: Recommended Steps

If Renton considers banning expanded polystyrene (EPS) foam used for food packaging, the City can learn from recent experiences in Seattle and Issaquah. Recommended steps for assessing the benefits and costs of a foam ban include the following efforts:

Assess available budget for implementation, education, enforcement, and administration. Unlike a tax or fee, a ban on single-use foam food-service packaging will not generate revenue for the City, and resources are needed for outreach, implementation, and enforcement.

Gauge public support. Community interest may influence the City's desire to pursue a foam ban. Public support could be measured through a basic online survey or public meetings.

Build business community support. Renton has about 260 sit-down and quick-serve restaurants, approximately 8 percent of all the City's businesses. Foam bans tend to increase packaging costs for businesses, with alternatives being more expensive. Education on the ordinance should highlight potential cost savings on waste disposal by reducing waste. The City could also consider providing financial incentives and assistance to affected businesses, such as free indoor compost and recycling collection containers and bags; discounts on waste, compost, and recycling services; customer education materials; and access to a purchasing cooperative.

Mandate compostable or recyclable alternatives and collection along with a foam ban. To increase waste diversion, legislation around a foam ban should include a directive to use recyclable or compostable alternatives and to provide for collection of these materials in all restaurants.

Weigh the benefits and challenges associated with an expanded polystyrene (EPS) foam ban and food packaging ordinance requiring recyclable or compostable replacements. Several local jurisdictions such as Seattle and Issaquah have recently implemented such bans to reduce litter and protect water quality.

Land use and development patterns drive energy use and greenhouse gas emissions. Compact development with access to services and amenities, walkable and bikeable neighborhoods, greener infrastructure, and natural systems promotes public health, greater efficiency, thriving communities, and less waste and pollution. Infrastructure requirements, building operations, and transportation needs associated with low-density development patterns result in roughly 2.5 times the annual greenhouse gas emissions and double the energy use per resident compared to higher-density development patterns.[3] Low-density development also costs more for families and households with significant monthly income going towards transportation costs.

[3] *"Comparing High and Low Residential Density," Journal of Urban Planning and Development (March 2006).*

RENTON TODAY

With Renton's location near key regional transportation routes, residents and business benefit from easy access to major state highways and interstate freeways. At the same time, drivers often face slowdowns and choke points that hinder mobility and increase commute times.

Just under half of Renton's greenhouse gas emissions come from vehicle miles traveled in the city (by residents and others). Through low and zero tailpipe emission vehicles, green fleet maintenance, commute trip reduction strategies, and a coordinated multimodal transportation system, Renton can reduce its carbon footprint, improve local air quality, and offer employees and employers more predictable and pleasant commutes.

Sustainable Development in Renton's 2009 Comprehensive Plan

Relevant goals and strategies include:

Provide for a mix of land uses, housing types, and densities (Policy CP-8).

Emphasize the use of low impact development and stormwater management techniques (Policy EN-10).

Acquire sensitive lands such as wetlands and floodplains for conversion to parks and greenbelts (Policy EN-11).

Carefully manage land uses in areas subject to geologic hazards. Preserve and enhance existing vegetation and tree canopy coverage (Policy EN-18).

Promote air quality through reduction in emissions from industry, traffic, commercial, and residential uses (Policy EN-22).

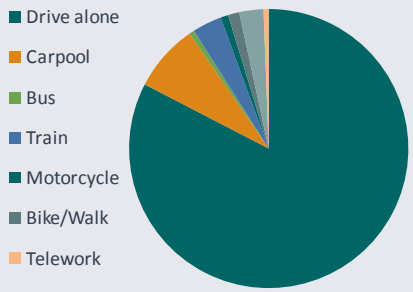
Establish canopy cover goals and promote urban forestry programs in order to maintain healthy atmospheric conditions (Policy EN-23).

Alternatives to commuting

In the Washington State Commute Trip Reduction survey, Renton employees indicated preferences for:

- **20%**--work at home (telework)
- **11%** --a financial incentive (allowance/subsidy)
- **10%**--an immediate ride home in case of emergency
- **9%**--transportation during lunch or breaks for personal errands
- **9%**-- more frequent bus service at the worksite

Renton Employee Commuting



Mobility & Transportation

Renton's fleet

Through the Evergreen Fleets Advisory Committee, Renton has supported the development of regional certification standards to improve fleet efficiency and use of alternative fuels. As part of the Clean Cities grant and the EV Project, the City will install 15 electric vehicle (EV) charging stations at The Landing, the City Center garage, the Renton Community Center, City Hall, and city fleet maintenance shops to help spur public and private use of electric vehicles. In its own fleet operations, the City has been increasing fuel efficiency through vehicle replacements with more efficient vehicles. For example, the Public Works department recently purchased a hybrid truck and is purchasing two additional hybrid vehicles. The municipal greenhouse gas inventory showed that the City's fleet contributed 18 percent of Renton's municipal greenhouse gas emissions in 2009, with police patrol representing the single largest share.

City employee commuting

Renton's 2009 Commute Trip Reduction Survey showed that 83 percent of the City's 375 survey respondents drive alone to work, with the average one-way commute distance approaching 12 miles. Approximately 20 percent of City employees indicated interest in the opportunity to work at home (telework) rather than commute.

The City has taken steps to promote more efficient commuting to and from work, winning awards for its commute trip reduction program and recognition on the U.S. Environmental Protection Agency's "Best Workplaces for Commuters" list (2006).

To reduce drive-alone commutes, Renton provides free FlexPasses to some employees, which cover unlimited rides on Sounder commuter rail, King County METRO Transit, Pierce Transit, and Sound Transit buses and subsidizes King County METRO VanPool and VanShare fares.

Multimodal transportation

Renton's public transportation options include regional and local bus service, commuter train, and Amtrak service, connecting Renton to Seattle, Bellevue, South King County, and beyond. The Renton Urban Shuttle (RUSH) transports commuters from downtown Renton to major employment sites, though cuts in funding have reduced frequency. In 1996, Renton became the first city in King County to participate in METRO's suburban, hub-based transit system. A downtown transit center completed in 2001 provides transit-oriented development that supports public transportation, mixed-income housing, and commercial activity and is the future destination of a new library.

As part of the **STEP AWAY from the car program**, Renton is working with King County Metro and the Cities of Kent and Tukwila to offer area employers five economical ways to help employees get out of their cars and into healthier, cheaper and greener commuting options (see sidebar).

In 2010, the Cascade Bicycle Club ranked Renton second highest in the region for "bikeability," outscoring Everett, Tacoma, Bellevue, Auburn, Kent, Federal Way, and Shoreline. Major bicycle facilities include the Cedar River Trail and Lake Washington Boulevard. Renton recently adopted a *Trails and Bicycle Master Plan* (2009) which provides recommendations for addressing such issues as limited crossing points of the Cedar River, I-405, and Sunset Boulevard/SR-900 as well as the lack of connections between downtown and adjacent neighborhoods. The City is working to enhance the overall safety of its bike trails, through centerline stripes and education and outreach on trail etiquette. Renton's bicycle parking ordinance mandates that residential developments with more than five units include parking spaces for bikes.

STEP AWAY from the car

Five economical options for Renton employers to help their employees get out of their cars:

1. Create a transit-friendly workplace with a 50% rebate on annual transit passes
2. Create a walk-friendly workplace with free consultation and services from Feet First
3. Create a bike-friendly workplace with free consultation and services from Cascade Bicycle Club
4. Appoint an employee ambassador who can provide commute assistance in a language other than English and receive free commute training
5. Learn about affordable telework solutions and new opportunities it could provide to your business

Land Use, Development & Stormwater

Stormwater management

Renton adopted a modified version of the *King County Surface Water Manual*, which provides guidance on using low impact development (LID) rather than conventional stormwater management. The City has made various related code revisions, including allowing LID techniques where feasible, setting impervious coverage limits in all zones, reducing residential street widths, and requiring street trees and vegetation. Several private developments in Renton have applied LID techniques.

The City is moving forward on two proposals to incorporate LID into public developments at King County Libraries and in the Sunset area of the Highlands. The City's Complete Streets ordinance includes wide (usually 8-foot) vegetated strips in the right-of-way for newly constructed roads as well as for retrofitted roads. These planting strips provide sufficient space to allow bioswales and rain gardens and significant tree growth for larger species. Renton currently has an interdepartmental team examining different LID options appropriate for use in rights-of-way.

Green infrastructure

Renton's municipal golf course has earned recognition for its sustainable land management practices. The golf course received the Audubon Cooperative Sanctuary Certification at the Gold Level, recognizing its chemical use reduction, wildlife and habitat management, water use efficiency, and sustainable management practices.

Renton is taking steps to manage its tree resources and recently valued its public property trees at more than $22 million, in terms of replacement and real estate values, according to its canopy cover assessment. In 2009, the City Council approved the Urban Community Forestry Development Plan to guide Renton's urban forestry efforts over the next decade. Renton implements a 30% tree retention policy for single-family development, and tree cutting requires permits and replacement trees. Renton was designated a Tree City USA Community in 2009 and it has a city forester on staff.

Renton uses **Integrated Pest Management (IPM)** approaches in parks and is in the process of creating an **integrated plan for the future of parks, recreation, open spaces, and natural resources.**

The City's Solid Waste Utility hosts neighborhood workshops on natural yard care, where participants can learn about soil health, pesticide use reduction, and composting alternatives.

Compact, smart growth

Through King County's Growth Management Planning Council (GMPC), Renton works collaboratively with other jurisdictions to plan for economic and population growth. The GMPC has developed and adopted Countywide Planning Policies, which serve as a framework for each jurisdiction to develop its own comprehensive plan.

Renton has received financing and community direction to implement smart growth land use policies in selected areas. The Sunset Area Community Investment Strategy—developed with the Renton Housing Authority, the Renton School District, and the community—includes such strategies as use of underutilized land, redevelopment of existing public housing, upgrade of public infrastructure, improvement of pedestrian linkages, and enhancement of community services and amenities.

Renton's housing growth targets are significantly higher than any of the "core cities" in the Puget Sound region. The City is implementing a new community plan for the City Center and central Renton neighborhoods to provide guidance for the area's future development with a focus on enhancing public realms with green space and trees and improving multi-modal transportation options into and within the area.

RECOMMENDATIONS

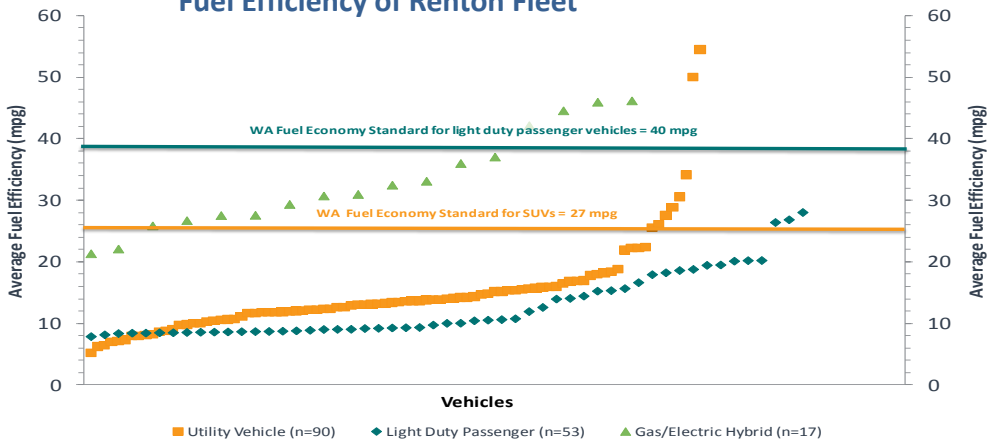
Prioritizing fuel-efficient, low-emission vehicles and making investments in a transportation/land use system that supports electric and alternative fuel vehicles, high occupancy vehicles, public transit, bicycling, and walking will help Renton achieve its mobility, transportation, and quality-of-life objectives. These efforts will also reduce greenhouse gas emissions, promote public health, and minimize waste and pollution.

4-1. Renton should continue to promote clean vehicle incentives and programs.

Clean vehicles are one important element of transportation solutions, specifically in reducing air pollution and greenhouse gas emissions and reducing dependence on petroleum. Most Renton employers interviewed as part of this strategy indicated serious interest in learning more about electric vehicles for their fleets and employees. Renton should continue to upgrade its own fleets and engage the community on new opportunities to adopt electric vehicles and other high-mileage and alternative-fuel vehicles.

Prioritize fuel-efficient and low-emission vehicles when upgrading Renton's fleet. The City's fleet fuel economy currently averages only 14 miles per gallon, far below the state's 2015 standard of 36 mpg. Renton should carefully consider fuel efficiency when replacing older vehicles and target high-emission, high-use vehicles for upgrades. Parks staff indicated they would consider changing from gas- to electric-powered vehicles.

Fuel Efficiency of Renton Fleet



4-2. Work with King County METRO, Sound Transit, and local businesses to reduce single-occupancy vehicle (SOV) commute trips.

SOVs represent a major share of Renton's employee commute trips. Interviews with Renton employers indicate that addressing commute trip reduction and congestion are top business priorities. The City should work with transit agencies and employers to provide the right mix of incentives and tools to reduce SOV trips in Renton. Redmond's R-TRIP program (see sidebar) offers an innovative model for designing transportation incentives to spur behavior change and support local businesses.

Engage Renton's leaders and transportation advocates in a *Keeping Renton Moving* dialog about how to leverage transit and other transportation investments for Renton. Interviews with Renton's employers highlighted transportation as a leading business issue. IKEA management described Renton's transit system as the "biggest limiting factor" in attaining sustainability and employee satisfaction, and numerous other interviewees underscored the need for additional public transit opportunities for their employees.

4-3. Foster smart growth and compact, walkable communities through policies, plans, and incentives.

To support attractive, walkable centers and non-vehicular connections between neighborhoods and shopping districts, Renton should create and maintain public amenities as resources allow and leverage private resources to create additional benefits. Elements of the City Center and Sunset Area plans such as common spaces, district level stormwater and green connections, and "third place" opportunities should be applied in Renton's secondary mixed-use growth centers and corridors.

Improve the pedestrian realm and linkages to goods and services. Recognize all users of the public right of way, and improve non-vehicular travel options and safety between primarily residential areas and shopping. Provide the choice of driving a car or leaving it home.

R-TRIP, the Redmond Trip Resource & Incentive Program offers commute calendaring, ridematching, incentives, and tracking. Users receive instant, dynamic feedback on key metrics (vehicle trips reduced, gallons of gas saved, CO_2 reduced) to make them aware of their progress toward personal, individual, employer, citywide and regional goals. R-TRIP encourages local economic development by providing behavior reward certificates to local businesses.
https://www.gortrip.com

Hybrid Police Vehicles
The police fleet of the City of Mountlake Terrace currently includes hybrid vehicles. Other cities around the country have also purchased hybrid vehicles for police use, including cities in New York, Hawaii, North Carolina, New Jersey, Utah, Texas, and California. The City of Mercer Island estimates that replacing two Crown Victoria models with hybrid Toyota Highlanders will save $4,000 a year and reduce emissions by 13 mtCO2e annually.
www.ci.mountlake-terrace.wa.us/.../090320_GreenFleet4HybridsInService.pdf
www.mercergov.org/files/05%20Sustainability.pdf

Possible Renton low impact development (LID) Incentives

For developers who use LID:

- Allow greater residential densities
- Allow greater building heights and floor area ratios as well as reduced setbacks
- Reduce parking requirements for new developments
- Waive all or a portion of the submittal fees on LID projects
- Lower stormwater system development fees or lower monthly billings
- Allow to account for stormwater treated on-site, when calculating the amount of conventional stormwater management required

For property owners:

- Assess surface water utility fees based on impervious surface
- Reduce water utility fees contingent on proper on-site infiltration or use

Promote the transition of strip-malls to main streets in neighborhood centers. Suburban style, car dependent development is prevalent in commercial areas outside of Renton's City Center. Building off the Sunset Area example along NE Sunset Boulevard, key nodes along corridors should be designed with main street amenities in mind to create inviting, vibrant public spaces as well as distinct identities for these centers.

Invest in and encourage green infrastructure in the public and private realms. Renton should use its recent canopy cover assessment to help inform green space needs. Green space and canopy cover provide recreational activities for residents, as well as a more hospitable landscape. Trees provide shade in the summer, which help reduce cooling needs and energy costs in the summer. Trees and landscaping can raise property values and contribute to thriving commercial shopping districts.

4-4. Model low impact development (LID) practices on high-profile parcels and public right-of-ways and incorporate green elements into public and private developments through investments, policies, and incentives.

Incorporate LID into highly visible public projects, building on Renton's current efforts at King County Libraries and in the Sunset area of the Highlands. The City should review projects for their potential to incorporate LID, including modifications in rights-of-way, the Complete Streets ordinance, and relevant capital improvement projects. Features may include bioswales or rain gardens in rights-of-way, pervious paving on multi-use paths, and traffic-calming features that double as rain gardens.

Promote the use of LID in private projects. The City could use incentives to encourage use of LID in private properties, (see sidebar with LID incentives). Depending on the volume of applications received, the City may need to devote resources to training permit review staff to review LID proposals.