

CITY COUNCIL STUDY SESSION ITEM

SUBJECT

Environmental Stewardship Initiative (ESI) Update

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POLICY ISSUES

Staff will update Council about ESI's key accomplishments since the last Council briefing in September 2015 and continuing efforts and priorities in 2016. The briefing will provide information about environmental programs, policies and performance metrics at the organization and community level. Policy support of this work is found in the following:

Bellevue Comprehensive Plan

- EN-2. Conduct city operations in a manner that ensures the sustainable use of natural resources, promotes an environmentally safe workplace for its employees, and minimizes adverse environmental impacts.
- EN-3. Minimize, and where practicable, eliminate the release of substances into the air, water, and soil that may have harmful impacts on people, wildlife, or the environment.
- EN-4. Promote and invest in energy efficiency and renewable energy resources as an alternative to non-renewable resources.
- EN-6. Establish an achievable citywide target and take corrective actions to reduce greenhouse gas emissions such as reducing energy consumption and vehicle emissions, and enhancing land use patterns to reduce vehicle dependency.
- EN-7. Develop and implement climate change adaptation strategies that create a more resilient community by addressing the impacts of climate change to public health and safety, the economy, public and private infrastructure, water resources, and habitat.
- EN-8. Provide regional leadership on environmental issues that extend beyond Bellevue's boundaries and require regional cooperation.
- EN-9. Educate the public about environmental issues and illustrate how individual actions can have a cumulative effect to benefit the environment.
- EN-10. Use life cycle cost analysis and best management practices in city projects and procurement to achieve effective environmental stewardship and long-term fiscal responsibility.
- EN-11. Support partnerships between the city and private landowners to steward private lands, streams, habitat and other natural resources for public benefit.
- EN-12. Work toward a citywide tree canopy target of at least 40% canopy coverage that reflects our "City in a Park" character and maintain an action plan for meeting the target across multiple land use types including right-of way, public lands, and residential and commercial uses.

- EN-16. Engage in Environmentally Preferable Purchasing practices and support product stewardship to reduce waste to landfill and carbon emissions.
- EN-54. Promote the use of alternative fuels such as electricity and compressed natural gas and evaluate the use of such fuels for the city's vehicles.

Mayors' Climate Protection Agreement (Res. 7517)

Council signed on to the Mayors' Climate Protection Agreement in 2006, establishing a goal to reduce greenhouse gas emissions to 7% below 1990 levels by 2012.

King County Cities Climate Collaboration (Res. 8789)

Council joined the King County Cities Climate Collaboration (K4C) on August 4, 2014. K4C is a partnership among cities across King County working to achieve greenhouse gas emission reductions consistent with Countywide Planning Policies.

Countywide Planning Policies

- EN-17 - Reduce countywide sources of greenhouse gas (GHG) emissions, compared to a 2007 baseline, by 25% by 2020, 50% by 2030, and 80% by 2050.
- EN-18 – Establish a greenhouse gas emissions inventory and measurement framework for use by all King County jurisdictions to efficiently and effectively measure progress toward countywide targets established pursuant to policy EN-17.

DIRECTION NEEDED FROM COUNCIL

___ Action
 X Discussion
 X Information

The majority of this briefing is informational as part of a quarterly ESI update. Council will be asked if they would like to initiate a friendly competition with the City of Bellingham, as part of the City's work on energy conservation through the Georgetown University Energy Prize.

BACKGROUND/ANALYSIS

ESI was launched by the City Manager in 2006 with the goal of bringing a more focused and integrated approach to the City's environmental efforts. The Initiative works across all City departments—promoting conservation behaviors, implementing more efficient technologies and identifying policy gaps – in an effort to improve the environmental performance of the organization. ESI also collaborates regionally, leveraging outside funding sources and public-private partnerships to facilitate programs directed toward Bellevue businesses and residents. The focus of ESI is on city government operations and activities and on community-wide policies and programs.

ESI programming is facilitated with a Program Manager in PCD, with support from the City's Resource Conservation Manager and interdepartmental staff work groups. ESI is intended to ensure that the City's budgeted operations are conducted in a manner that is cost effective, consistent with the City's environmental policies, and leveraging outside grants to maintain Bellevue's position as an environmental leader in the region.

An organization-wide roadmap for environmental performance has been developed to guide the work of ESI and the organization. The *2013-2018 ESI Strategic Plan* provides a comprehensive list of environmental metrics, performance targets, achievements and recommended actions.

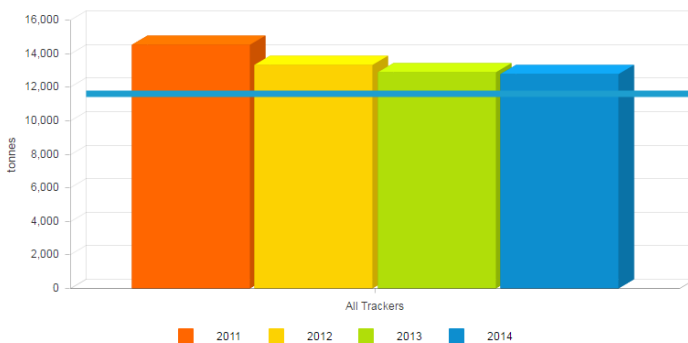
While the *ESI Strategic Plan* attempts to address all environmental aspects of the city operations and community, programs under ESI's direct management tend to focus on the issues of climate change and clean energy – neither of which are the focus of other City programs.

This informational update will provide the Council with a progress report on key environmental programs underway and a look forward at those under development by ESI for 2016.

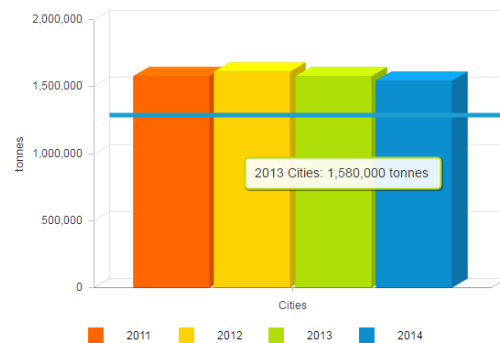
ESI KPI Summary

The following graphs of two ESI KPIs illustrate the City's performance with respect to its original greenhouse gas emissions reductions targets for 2012. For both municipal operations and community emissions, the City has decreased its emissions, but has yet to meet its historical targets.

Bellevue Municipal Emissions, Compared to City Council Goal of 7% Below 1990 Levels (Tonnes)



Bellevue Community Emissions, Compared to City Council Goal of 7% below 1990 Levels (Tonnes)



ESI Program Updates:

1. Energy Efficiency and Conservation:

- a. **Georgetown University Energy Prize (GUEP)** – The GUEP is a nationwide prize of \$5 million awarded to the small or medium sized city that can innovatively reduce the most municipal and residential energy over 2 years. Bellevue has joined over 50 other cities nationwide invited to participate in this program by developing creative, effective programs to save energy in the residential sector. If the winner, a \$5 million dollar purse would be reinvested into a renewable energy or energy efficiency program voted on by the community.

Bellevue is currently in 5th place in the competition.

Bellevue will use a \$30,000 grant from the King Conservation District to support a public education and behavior change campaign focused on reducing residential energy consumption. With this award, we are planning and executing the next phase of the GUEP community engagement strategy, which is being designed to incentivize residents citywide to reduce energy consumption in their homes.

We are using multiple complementary outreach strategies, including social media, tabling at events, and targeted outreach to underrepresented neighborhood groups. The outreach efforts will focus on encouraging residents to commit to taking action by signing a voluntary non-binding “pledge” to take simple no-cost actions at home to reduce energy use.

The City is working closely with the Eastside Energy Corps, a group of students passionate about energy and sustainability issues, who will support the City’s outreach efforts. We are looking to facilitate some friendly competitions between schools in Bellevue, to encourage as many students as possible to sign the pledge. We are planning to do a coordinated launch of our outreach efforts during Earth Week, April 18-22.

The new campaign will build on progress already made educating the public about energy conservation through programs like Solarize Bellevue, the Green Power Challenge, and other PSE programs.

ACTION REQUESTED: The ESI program is proposing to engage in a friendly competition with the City of Bellingham, which is also participating in the GUEP and is currently ranked just after Bellevue, in 6th place. This type of friendly competition typically helps to raise awareness and elevate the profile of a project. After initial discussions with Bellingham about this, we are in the process of confirming their interest and desire to proceed. If both Council and the City of Bellingham support this approach, we will coordinate with the press offices in both cities to develop a press release and announce the challenge during our Earth Week outreach efforts.

- b. Urban Smart Bellevue model program** – Urban Smart Bellevue (USB) is a program in partnership with PSE that seeks to reduce energy consumption within a “district” of downtown buildings by 16 million kWh over a two year period, with over 200 participants. A primary goal of the program is to build community motivation around energy conservation with fun and easy-to-access tools and resources, including more accessible data, a community dashboard, digital art, and an app to track actions by tenants and employees. Outreach and engagement is ramping up April through June, with invitation letters and direct contact with businesses. This will be a high-profile effort and the City is a leading partner in the program design and in kicking off participation at City Hall.

2. Renewable Energy

- a. Solarize Bellevue** – The second Solarize Bellevue campaign successfully finished in November 2015. Hundreds of residents signed up to attend educational workshops which resulted in 38 solar installations (266 kW).

Adding to the numbers from the first Solarize Bellevue campaign, which installed 50 new systems and 292 kW, these two campaigns resulted in 758 kW of new solar capacity in 2014-2015. Bellevue has now reached a community total of 1,700 kW renewable energy installed, up from only 340 kW in 2014, largely due to these campaigns.

Another positive benefit of the second campaign is that for every five systems installed over the goal of 25, the Solarize contractor, A&R Solar, donated for \$2,000 to Jubilee REACH and the Interlake High School Saints Robotics Team (identified through a competitive application process).

- b. Puget Sound Energy Green Power Challenge** – City of Bellevue was invited to participate in a 2015 Green Power Challenge offered by Puget Sound Energy. The Green Power program allows residents and businesses to purchase green power for as little as \$4 per month on their PSE electricity bill. The Challenge provided a \$40,000 grant toward a solar array if 250 new customers (net) enroll in PSE's Green Power program. PSE offered \$100 per new signup (beyond 250) up to a maximum of \$50,000. We are happy to report that the residents and businesses of Bellevue responded very positively, with 543 net new sign-ups! As of the end of 2015, 3,536 Bellevue residents and businesses participate in the program.

The \$50,000 award from PSE will go towards the installation of a solar array at Crossroads Community Center, ideally with support from an additional solar grant award from the Department of Commerce to make the array larger. The solar array will be installed in the summer of 2016 after acceptance of the grants.

Heather Mulligan, Program Manager for Green Power at PSE will be joining the study session to present the award to the City.

3. K4C Updates

a. Legislative Interests

- i. Coal Bill passes the WA state legislature on 3/4/2016** - K4C cities collaborated to draft policy documents supporting the Colstrip Coal Plant Bill "Coal Bill", which the City of Bellevue supported passing in its legislative priorities. This bill provides secure funding for PSE to decommission and clean-up Colstrip Units 1 and 2 in Montana when they are retired. The legislation does not compel retirement but provides an important financial management tool that will enable PSE to facilitate timely and prudent retirement of Colstrip Units 1 and 2 and manage rates to better protect customers and minimize overall risks. Puget Sound Energy owns 50% of Colstrip Units 1 and 2 built in 1975 and 1976 respectively. The Colstrip coal plant is one of the largest emitters of carbon pollution in the Western United States. The costs of operating Colstrip continue to increase as market conditions for the coal plant continue to decline. In addition, the costs of cleaning up the substantial pollution from the ash ponds and pollution of the ground-water in the community of Colstrip are also growing.
- ii. Solar incentives bill stalled in committee**– The K4C cities also collaborated to support state bill HB 2346 to revise Washington State's existing solar production incentive program, which the City of Bellevue also supports in its legislative priorities. This bill extends state incentives for solar production and also increases the funding cap for PSE (and Seattle City Light) for their utility production incentives. This bill currently remains in the Senate Ways & Means Committee pending budget negotiations and discussion surrounding the Clean Air Rule amendment.

b. April 7, 2016 K4C Elected Official Summit: Green Building and Benchmarking

The upcoming K4C elected official summit will focus on green building policies and programs. There will be a celebration of K4C receiving an EPA Climate Leadership award at

the recent Climate Leaders conference in Seattle. There will also be presentations on the benefits of green building and energy efficiency, living building challenge policies, and regional code collaboration.

The main topic on the agenda is the discussion of municipal and commercial building benchmarking. A brief summary of these programs is below and will be provided during the Council Study Session. The attached K4C Building Energy Benchmarking Report provides more details on the K4C recommended approach to benchmarking.

Benchmarking Overview

Building energy benchmarking represents the process of tracking the energy consumed, over time, of an existing building and comparing the results to similar buildings or an applicable standard. Benchmarking may also compare a building to its own historical performance, and may be valuable in validating and managing utility bills. Many public and private building owners use benchmarking to manage the energy use of a building or portfolio of buildings.

The purpose of a benchmarking and disclosure policy is to encourage or require building owners to report information about building energy performance, with the goal of motivating investment in efficiency upgrades and undertaking other actions that save energy and reduce carbon emissions. Benchmarking is thus considered a market-based policy tool to increase building energy performance awareness among key stakeholders and create demand for energy efficiency improvements. Benchmarking and disclosure policies may encourage or require building owners to disclose benchmarking results during real estate transactions, or to report benchmarking information to a regulating jurisdiction. Benchmarking policies can be voluntary or mandatory.

The benefits of benchmarking are powerful. The U.S. Environmental Protection Agency found that “organizations benchmarking consistently in Portfolio Manager have achieved average energy savings of 2.4% per year, for a total savings of 7% over the four-year period of analysis.

As of December 2015, 15 cities, two states, and one county in the U.S. have adopted policies that mandate benchmarking of commercial buildings of a certain floor area, including the City of Seattle. At least 10 other jurisdictions require benchmarking of public buildings; some require benchmarking of both public buildings and commercial buildings. Most of these cities launched their programs as voluntary and then transitioned them to mandatory benchmarking programs. Some cities have kept the commercial component of their benchmarking program voluntary, while requiring municipal benchmarking.

Benchmarking and disclosure programs typically consists of:

- Adopting an ordinance, policy, or program to encourage or require that public, commercial, and/or multifamily buildings of a certain floor area report their energy use to a local or state jurisdiction on an annual basis. (The U.S. Environmental Protection Agency’s ENERGY STAR Portfolio Manager, an online tool for measuring and tracking energy and water consumption, is typically used).

- Developing a target building list for participation and outreach, using local assessor/tax data on property ownership.
- Notifying target buildings that they are encouraged to participate in a voluntary program, or required to comply with a mandatory policy (if applicable).
- Technical assistance, including providing training, education, and data verification support.
- Creating a benchmarking help center.
- Analyzing data and creating reports for policymakers and stakeholders.
- Partnering with utilities to share findings and drive participation in efficiency incentive programs.

K4C recommends that cities adopt an ordinance which requires mandatory public benchmarking and disclosure and creates a system for voluntary commercial building benchmarking and disclosure.

The Urban Smart Bellevue program will help building owners and tenants manage and understand their energy usage data and help them improve their internal energy management practices. This program is targeting to sign up 200 business participants downtown, including a mix of tenants, building owners, and property managers. The City of Bellevue currently has approximately 69 Energy Star rated buildings, which are already benchmarking their buildings, and 29 LEED buildings¹, which were designed as high performance buildings. Both the Urban Smart Bellevue program and the existing efforts of these high performing buildings demonstrate an existing acceptance of benchmarking and reduced energy use through green design, particularly in larger office buildings.

4. Update on Other ESI Activities

- a. **Electric Vehicles (EVs) and Infrastructure** – The City currently has 23 EV charging stations for city fleet and public use. These stations were originally purchased with funding through the American Recovery and Reinvestment Act (ARRA) and we initially provided the charging service for free. We increased the rates at the stations in early 2015 and recently increased the rates again to align with market rates in Bellevue, which will help to recover our operating costs for these stations and make them budget neutral and possibly budget positive.
- b. **Green Fleet Guidelines** – ESI has been working with the FCGC group to develop a set of guidelines for fleet managers, to encourage and standardize the purchase of cleaner vehicles. These guidelines are nearly complete, and will also include recommendations and an evaluation matrix to aid fleet managers in determining how to use the reserve funds that are being collected from the green fleet surcharge.
- c. **Regional Green Business Program (EnviroStars)** – The Regional Green Business Program had its kick-off in January, and work is now underway to develop the new EnviroStars program and setup a framework for enrolling additional cities.

¹ Green Building Information Gateway, www.gbinfo.org, accessed on 3/30/2016.

- d. **Scope 5 (greenhouse gas emissions tracking software) rollout to K4C Cities** – The ESI and RCM programs are in the process of working with the vendor to prepare the Scope 5 system developed by Bellevue for rollout to Redmond, Kirkland, King County, and Mercer Island. This will allow a common system of greenhouse gas emission measurement and sharing of best practices, and will reduce Bellevue’s cost for maintaining our system

5. 2016 ESI Priorities

a. ESI Program Assessment

The ESI program will undergo a multi-faceted assessment, to gather information on Bellevue’s progress toward meeting environmental objectives, and to identify opportunities for further work. This assessment will include the following:

- Review progress on implementing the actions in the ESI Strategic Plan
- Analysis of ESI KPI trends
- Gap analysis of environmental stewardship and sustainability best practices

This assessment will be used as a comprehensive progress report on ESI’s achievements, and to identify and refine priorities for future years.

b. Work to establish a government operations and community-wide GHG reduction target, as directed by the newly updated Comprehensive Plan

Following the direction of the updated comprehensive plan, ESI will analyze and recommend short and long-term greenhouse gas emissions reduction targets for both city government operations and the community as a whole. This analysis will take into account regional targets, relevant national and international mayors climate change agreements, peer city targets, and a feasibility analysis for the City of Bellevue to achieve the proposed targets.

c. Tree canopy gap analysis and action plan, as directed by the 2015 Comprehensive Plan

ESI will review the work performed to date through the Low Impact Development (LID) project, the Parks department, and other efforts to address the City’s tree canopy. This will entail convening a team to review progress to date, tree canopy trends on public and private land, tree canopy trends by neighborhood, data gaps and issues, proposed policy updates, and opportunities for programs or incentives to supplement forthcoming LID policy changes.

d. Municipal Building Energy Benchmarking: further review and policy decision

Further analysis and planning for a municipal building (City-owned facility) energy benchmarking program will be developed and a proposal will be brought to Council later in 2016 for proposed adoption of a municipal benchmarking approach.

e. Enhance sustainability criteria in existing initiatives, such as LID regulations and Downtown Livability

As appropriate, ESI will support existing initiatives to enhance sustainability in Bellevue and will review and provide support on programs such as the LID regulations and Downtown Livability amenities and incentives. This work is intended to provide additional support and recommendations to strengthen the environmental benefits of existing efforts, whenever possible.

f. Identify opportunities to promote and expand electric vehicle use in Bellevue

Collaborate with partner cities through the K4C to identify opportunities for regional cooperation around electric vehicle infrastructure and planning. Also promote workforce charging stations to businesses in Bellevue, to help expand the local EV infrastructure network.

NEXT STEPS

This Study Session briefing has been an opportunity for staff to inform Council of ongoing work pertaining to the City's Environmental Stewardship Initiative. Staff is seeking any additional insights or feedback Council wishes to provide at this time. Staff will continue their efforts in the program areas discussed absent contrary direction from the Council, providing quarterly updates.

Action Requested:

- Decide if we should pursue a friendly competition with the City of Bellingham to see which city can reduce the most energy through the Georgetown University Energy Prize.

ATTACHMENT(S)

K4C Building Energy Benchmarking Report, January 22, 2016

AVAILABLE IN COUNCIL DOCUMENTS LIBRARY

ESI Strategic Plan, 2013 – 2018