

CITY COUNCIL STUDY SESSION ITEM

SUBJECT

Environmental Stewardship Initiative (ESI) Update

STAFF CONTACTS

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POLICY ISSUES

Staff will provide an update to Council on environmental programs, policies and performance metrics since the last Council briefing on April 4, 2016 and will request direction on two topics:

- Municipal energy benchmarking and reporting
- Developing a Living Building Challenge pilot program.

The briefing will report on the following:

- ESI Key Performance Indicators
- Progress toward implementing the ESI Strategic Plan
- ESI buildings and energy use initiatives
- U.S. Department of Energy Grant for analyzing greenhouse gas emissions
- EnviroStars Regional Green Business Program.

Policy support for the Environmental Stewardship Initiative is found in the following:

Bellevue Comprehensive Plan

The Environmental Element of the Comprehensive Plan provides the key policy directives driving ESI's work. It calls for the promotion and investment in energy efficiency and renewable energy (EN-4); development of a greenhouse gas emissions reduction target (EN-6); development of climate change adaptation strategies (EN-7); regional leadership on environmental issues (EN-8); education and outreach on environmental issues (EN-9); support partnerships with private landowners (EN-11); increasing the citywide tree canopy to 40% (EN-12); and promoting the use of alternative fuels (EN-54).

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

The following countywide policies are incorporated in the Environmental Element of the Comprehensive Plan:

- 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.

Regional Leadership

ESI seeks to implement Council's vision and priorities for regional leadership by partnering with neighboring jurisdictions through the K4C and by securing greater levels of grant funding through regional and national partnerships.

DIRECTION NEEDED FROM COUNCIL

___ Action
X Discussion
X Information

The majority of this briefing is informational as part of the periodic ESI update. Council will be asked for direction on the following:

- Implementation of a municipal building energy benchmarking and reporting program by returning to Council with a Resolution at a future meeting.
- Pursuing a Living Building Challenge pilot program with the objective of encouraging the development of advanced green buildings in Bellevue.

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. ESI programming is facilitated by a Program Manager in PCD, with support from the City's Resource Conservation Manager and interdepartmental staff work groups. The work of ESI is guided by the *2013-2018 ESI Strategic Plan*, which provides a comprehensive suite of environmental metrics, performance targets, achievements, and recommended actions. The ESI program is responsible for supporting the implementation of the ESI Strategic, which involves coordinating with other departments and leading the development and implementation of climate change and clean energy programs. Council receives periodic updates on the performance of the program and progress on the strategic plan, which is the objective of tonight's presentation. Information will be presented in regards to the following:

1. ESI Strategic Plan Progress Report

The Environmental Stewardship Initiative Strategic Plan was released in 2013 and endorsed by the Leadership Team. The plan includes 57 strategies and 19 KPIs which holistically address the environmental sustainability of Bellevue, and includes the following sections:

- Greenhouse Gas Emissions
- Mobility and Land Use
- Energy and Water
- Materials Management and Waste
- Ecosystems and Open Spaces

The plan is an action-oriented plan, which spans the timeframe of 2013-2018, and builds on the initial ESI Strategic Plan which spanned from 2009-2012. The attached (Attachment 1) ESI Strategic Plan Progress Scorecard and KPIs provides the implementation progress, status, and next steps for all actions in the plan. The City has implemented about half of the plan's actions, and initiated work on all but one of the actions in the plan (Action 18: Consider mitigation tools for effectively reducing greenhouse gas emissions associated with development projects). ESI and key department still will begin work on this action in Q1 2017, with the goal of completing it by Q4 2018, along with the other remaining actions in the plan.

2. ESI Key Performance Indicator Update

This section of the presentation will include a brief summary of the key performance indicators (KPIs) for the ESI program, a subset of the KPIs for the ESI Strategic Plan. The following KPIs will be discussed:

- Municipal Greenhouse Gas Emissions
- Community Greenhouse Gas Emissions
- ESI Strategic Plan Implementation Progress
- Number of People Engaged at ESI Events
- Citywide Tree Canopy

3. Update on Key ESI Initiatives: Reducing Energy Use in Buildings

The focus of much of ESI's work in 2016 is on building energy use, including energy efficiency projects, energy conservation, and renewable energy. ESI's actions are designed to implement the environmental policies in the Comprehensive Plan related to conserving natural resources, promoting and investing in energy efficiency and renewable energy, and educating the public about environmental issues. The ESI Strategic Plan provides more detailed recommendations on how the city might implement this policy direction, such as pursuing building energy use benchmarking and reporting, and reducing code barriers to green building and renewable energy, discussed in Section 5 and 6.

a. Georgetown University Energy Prize

Bellevue continues to pursue the \$5 million Georgetown University Energy Prize (GUEP) and is tied for 4th place in the competition, which will conclude at the end of this year. The winner will be selected from the top 10 leaders, based on the diversity, replicability, and impact of their policies and programs. ESI has been engaging with hundreds of Bellevue residents on energy efficiency and conservation, and will continue this outreach throughout the end of the year.

b. Urban Smart Bellevue model program

Urban Smart Bellevue is a program in partnership with PSE that seeks to reduce energy consumption within a "district" of downtown buildings and was launched in June. The program seeks to engage over 200 participants downtown, with a goal of reducing 16 million kWh over a two year period. The project team is in the midst of recruiting participants. 11 organizations which have signed up for the program, including Microsoft, PSE/Hines, Westin, Virginia Mason, City Hall, and GLY. 38 buildings with several tenants are actively considering joining.

4. Renewable Energy: Solar Array at Crossroads

The City is nearly complete with the installation of a new solar array on the Crossroads Community Center, and is planning for a ribbon cutting and renewable energy/energy efficiency event. The City received an award of \$50,000 from Puget Sound Energy for Bellevue's success in signing up 543 new

customers in the Green Power Challenge, and then received an additional \$60,396 from the Department of Commerce toward this installation.

5. Municipal Building Energy Benchmarking in Bellevue

Energy Benchmarking and Reporting is a best practice for managing and publicly sharing energy information, intended to drive energy efficiency investments and conservation through improved transparency around energy use. The U.S. Environmental Protection Agency reports that buildings which benchmark have achieved average energy savings of 2.4% per year, for a total savings of 7% over a four year period. ESI provided an overview of energy benchmarking to Council on April 4, 2016, and the attached K4C Building Energy Benchmarking Report, January 22, 2016 (Attachment 2), provides a detailed analysis of the impacts of benchmarking.

Following the April 4, 2016 study session, ESI evaluated the potential for municipal building energy benchmarking in Bellevue, and found that with no additional costs, the City could implement a benchmarking and reporting program. ESI will recommend that we begin the process of benchmarking and publicly reporting of municipal energy use, which would provide the following benefits:

- Formal commitment to implement a best practice for energy management, to support our Environmental Stewardship goals
- Support for our pursuit of the Georgetown University Energy Prize – one of the goals of the competition is to institutionalize best practice energy management policies and programs
- Support for our Open Data and Smart City goals
- Regional and national leadership – only 28 cities nationally have adopted this policy, and only one other in the region
- Leading by example in building energy performance transparency

To institutionalize this process, ESI will recommend adopting a resolution requiring annual benchmarking and reporting for municipally owned buildings if they are:

- a. 20,000 square feet or greater;
- b. An office or public safety building with a floor area of 5,000 square feet or greater; or
- c. Leased buildings greater than 20,000 square feet where the city is the sole occupant and controls the building utility accounts.

Many agencies who participate in benchmarking efforts have adopted legislation to publicly demonstrate their commitment to collecting and sharing data related to energy management and reporting. Should Council wish to take this approach, a Resolution will be drafted for Council consideration at a future meeting.

6. Living Building Challenge Pilot in Bellevue

ESI has reviewed best practice programs for incentivizing and removing barriers to green building, per the direction from the Comprehensive Plan and the ESI Strategic Plan, and has evaluated opportunities for enabling advanced green building in Bellevue, which often requires departures from the building code. Seattle's Priority Green Program serves as a good example of a voluntary program which incentivizes green building through land use bonuses, expedited permitting, and allowance for code departures for projects pursuing green building certification, such as Living Building Challenge certification. The Living Building Challenge is the most advanced green building standard, and requires projects to meet net zero energy or net zero water requirements, and also use environmentally preferable building materials and meet other advanced environmental requirements. The City of Shoreline is also

pursuing developing a similar program, to incentivize the development of green building around new light rail stations.

ESI has begun an evaluation of these programs seeks direction on Council's interest in pursuing a voluntary Living Building Challenge pilot program in Bellevue. A Living Building Challenge pilot program would allow the City to have some flexibility in its code to enable projects to use innovative designs to achieve advanced environmental goals. REI has expressed interest in developing an advanced green building and possibly pursuing the Living Building Challenge, which would be facilitated through a Living Building Challenge pilot program. The benefits of such a program include:

- Leadership in green building and smart building technology
- Support for pursuing the Georgetown University Energy Prize, by implementing an innovative policy to support advanced green building
- Economic development program support
- Regional and national leadership

7. Greenhouse Gas Emissions Analysis and Target Setting

a. Selection for a U.S. Department of Energy Grant

The City of Bellevue was recently selected for a grant from the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy, Cities Leading through Energy Analysis and Planning program. The City of Bellevue is the lead agency on the grant, and the project partners include King County, WA; Houston, TX; Santa Monica, CA; Aspen, CO; Metropolitan Washington Council of Governments, and the nonprofit, ICLEI-Local Governments for Sustainability. The total award amount is \$450k, split between the project partners, and the City of Bellevue would receive \$90k.

ESI will request acceptance of this grant from Council on October 3, 2016.

This project will build on our existing efforts to manage and report our greenhouse gas emissions, as directed by the Comprehensive Plan and recommended in the ESI Strategic Plan. This project will provide essential information in evaluating the effectiveness of various City policies and programs in terms of reducing greenhouse gas emissions, which will support our Environmental Stewardship and Smart City goals. The project will also provide a more robust data set for the development of an updated greenhouse gas emissions reduction target, as directed by the Comprehensive Plan.

b. Updating the City of Bellevue Greenhouse Gas Emissions Reduction Target

Per the direction of the Comprehensive Plan, one of the major upcoming initiatives of ESI will be to lead the update of the city's GHG emissions reduction target. The City's current target, to reduce GHG emissions to 7% below 1990 levels by 2012 is out of date and also somewhat confusing as it sets 1990 as a baseline. The City may seek to adopt the countywide targets as a citywide target (EN-17: compared to a 2007 baseline, reduce emissions by 25% by 2020, 50% by 2030, and 80% by 2050), or to use this as a guide.

The DOE grant will support the City's efforts in performing the analysis required of current and future trends to evaluate the feasibility of various targets. ESI will provide Council with a more in-depth briefing on the process for developing an updated target and key considerations for the analysis at the next ESI update to Council.

8. EnviroStars Regional Green Business Program

Per Council's direction and approval on September 14, 2015, Bellevue is participating in the development of a new regional green business certification program which builds on King County's EnviroStars program, but will be a far more comprehensive program involving jurisdictions throughout Western Washington. ESI will provide an update on the progress of developing this program, and the City's plans to support the rollout and implementation of the program.

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.

Direction Requested:

- Should the City formally adopt, by way of Resolution, a municipal building energy benchmarking and reporting program?
- Should the City pursue a Living Building Challenge pilot program with the objective of encouraging the development of advanced green buildings in Bellevue?

ATTACHMENTS

1. ESI Strategic Plan Progress Scorecard and KPI's, September 15, 2016
2. K4C Building Energy Benchmarking Report, January 22, 2016

AVAILABLE IN COUNCIL DOCUMENT LIBRARY

ESI Strategic Plan, 2013 – 2018