

Energy Management & Carbon Neutrality

Focus Area: Environment & Public Health
Strategic Objective: Stewardship
Owner: Paul Fleming, Corporate Asset Management Division

Summary of proposed action

Conduct a variety of assessments and implement a program so SPU can achieve net zero greenhouse gas (GHG) emissions (i.e., carbon neutrality) by 2015, as directed by Executive Order #2013-02, Oct 2013.

Description of the problem this action solves

SPU's routine operations (e.g., use of its automobile fleet, heavy equipment, and water treatment facilities) emit thousands of tons of GHGs every year. In 2009, SPU's activities emitted ~14,000 metric tons of GHGs. This is roughly equivalent to the annual emissions from 2900 passenger vehicles¹. Seattle City Light, which has been carbon neutral since 2005, annually purchases carbon offsets in the range of 100,000 to 300,000 metric tons. This proposal reflects a significant policy change and strategy to achieve net zero GHG emissions by 2015.

More detailed description of the proposed action

The proposed Energy Management & Carbon Neutrality Program (EMCNP) builds on the existing (baseline) work on the 2013 GHG inventories and policy work being completed in 2013 and 2014.

In the near term (2014-2020), the EMCNP reduces SPU's GHG emissions by funding a half-time staff position to create an annual inventory of SPU's emissions and contribute to the development and implementation of the carbon neutral strategy. The staff also would monitor SPU's energy use, assess opportunities to generate renewable energy within SPU's operations, implement energy efficiency measures, and purchase carbon offset credits and renewable energy credits as needed to achieve net carbon neutrality.

The longer term strategy combines the purchase of offset credits with implementation of energy efficiencies identified in the studies (funded by this proposal) and onsite energy generation. (Funding of the anticipated energy renewal and efficiency projects is not included in this proposal; we will propose such funding through SPU's ongoing infrastructure development program, also known as the CIP (Capital Improvement Program)).

The near and long term strategies result in a sustained effort to manage and reduce SPU's energy consumption and GHG emissions, as well as making SPU one of the first water utilities in the U.S. to achieve carbon neutrality.

¹ Assumes fuel economy of 21.5 mpg and annual vehicle miles traveled of 11,493.

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Implementation plan and timeline

	2014	2015	2016	2017	2018	2019	2020
Develop and verify annual inventory of SPU's GHGs.	x	x	x	x	x	x	x
Identify options for energy efficiency measures	x						
Conduct renewable energy potential assessment (REPA)	x	x					
Identify and resolve carbon neutrality policy issues	x						
Develop draft carbon neutrality portfolio pathways	x	x					
Implement recommendations for pump station optimization		x					
Further develop REPA strategies		x					
Implement carbon neutrality portfolio (carbon offset credits)		x	x	x	x	x	x
Conduct efficiency studies as needed to identify more opportunities to reduce emissions			x	x	x	x	
Request capital funds needed for renewable energy work			x	x	x	x	x
Evaluate and adjust carbon neutrality portfolio				x		x	

Budget and FTE Changes (in \$000s)

Fund: All three funds

	2015	2016	2017	2018	2019	2020	Total
O&M Labor	50	50	50	50	50	50	\$300
O&M Non-Labor	200	200	200	200	200	200	\$1,200
O&M Subtotal	250	250	250	250	250	250	\$1,500
CIP							\$0
Total O&M and CIP	\$250	\$250	\$250	\$250	\$250	\$250	\$1,500
FTE	0.5	0.5	0.5	0.5	0.5	0.5	

Plan for evaluating success or progress

Monitor SPU's greenhouse gas emissions over time and evaluate the effectiveness of the carbon neutrality portfolio in achieving neutrality and in addressing other policy objectives.