

RESOLUTION No. 31354

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A RESOLUTION establishing the City's intent to seek a private sector partner to assist it in exploring possible models for expanding, upgrading, and/or developing district energy systems in certain areas of Seattle.

Introduced: 1.17.12	By: Energy + Environment
Referred:	To:
Referred:	To:
Reported:	
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2/14/12 Adopt as amended ^(ENS) 3:0

Full Council **2/21/12** Adopted as Amended ^(ENS)
6-0 (excused: Conlin, Boddin, Rasmussen) (TB, SC, MO)

US5171

RESOLUTION 31354

1 A RESOLUTION establishing the City's intent to seek a private sector partner to assist it in
2 exploring possible models for expanding, upgrading, and/or developing district energy
3 systems in certain areas of Seattle.

4 WHEREAS, the City has an interest in reducing greenhouse gas emissions within the city,
5 expressed in Resolution 31312 and elsewhere; and

6 WHEREAS, district energy holds the potential to reduce such emissions by providing heating
7 and sometimes cooling to buildings from a centralized, efficient, clean, and low-carbon
8 source; and

9 WHEREAS, a study commissioned by the Office of Sustainability and Environment (OSE)
10 evaluated a number of areas in the city where district energy may be feasible and
11 desirable, and identified First Hill, including Yesler Terrace, as a potential early
12 implementation opportunity; and

13 WHEREAS, OSE's research suggests that it would be prudent for the City to seek a private-
14 sector partner with expertise in expanding, upgrading, developing and operating district
15 energy systems to assist it in exploring the most appropriate model to pursue; and

16 WHEREAS, the City adopted Resolution 31329 supporting OSE's proposal in principal but
17 requesting additional analysis of alternatives and options before seeking such a partner;
18 and

19 WHEREAS, OSE has addressed the questions and issues raised by Resolution 31329 to the
20 City's satisfaction; NOW, THEREFORE,

21 **BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE**
22 **MAYOR CONCURRING, THAT:**

23 Section 1. The City of Seattle intends, through the Request For Qualifications substantially as
24 attached as Exhibit A, led by the Office of Sustainability and Environment and in coordination
25 with key First Hill stakeholders, to solicit a private-sector partner to assist it in exploring options
26 for upgrading, expanding, and operating a district energy system on First Hill, including
27
28



1 exploration of options for providing service to Yesler Terrace and continued service to First Hill
2 hospitals.

3 Section 2. The City through the Office of Sustainability and Environment will engage this
4 private-sector partner through the following process, anticipated to span 2012:

- 5 a) Solicit and select a partner through a Request for Qualifications process; and
- 6 b) Establish a Memorandum of Understanding (MOU) with the selected partner to
7 conduct due diligence on the opportunity; and
- 8 c) Coordinate with the partner to conduct due diligence on the opportunity, including a
9 feasibility assessment of district energy opportunities and potentially negotiate for the
10 successful development of the opportunities identified in the feasibility assessment;
11 and
- 12 d) Following the identification of a viable proposal for expanded district energy service
13 on First Hill and at the mutual agreement of both parties, develop implementation
14 agreements, which at minimum will include a franchise agreement, to move forward
15 with implementation of district energy service on First Hill. The City Council will
16 approve any such implementation agreements to which the City is a party, and the
17 City maintains the ability to select any course of future action until the
18 implementation agreements are signed.

19 Section 3. The City Council will, by Resolution, establish a set of principles and parameters to
20 be reflected in the MOU that OSE negotiates with the private district energy partner to guide the
21 due diligence and negotiations referenced in Section 2(c) of this Resolution.





City of Seattle

REQUEST FOR QUALIFICATIONS

Project Title: First Hill District Energy Strategic Partnership

Procurement Schedule

Table 1: Procurement Schedule

Schedule of Events	Date	Location
RFQ Release	2/27/12	
Optional Pre-Submission Conference	3/12/12	TBD
Deadline for Questions	3/16/12	
Optional Notice of Intent to Respond	3/16/12	christie.baumel@seattle.gov
Sealed Submissions Due to the City	4/2/12 12:00 pm	See Table 2: Delivery Address
RFQ Interviews	4/16/12 – 4/27/12	
Announcement of Successful Respondent(s)	5/2/12	
MOU Execution	5/30/12	

The City reserves the right to modify this schedule at the City's discretion. Notification of changes will be posted on the City website or as otherwise stated herein.

Procurement Contact

Project Manager: Christie Baumel, christie.baumel@seattle.gov, 206.233.7173

Table 2: Delivery Address

Fed Ex & Hand Delivery - Physical Address	US Post Office - Mailing Address
Office of Sustainability & Environment Suite 2748 700 Fifth Avenue Seattle, Washington, 98104	Office of Sustainability & Environment Seattle Municipal Tower P.O. Box 94729 Seattle, Washington, 98124-4729

It is important to use the correct address for the delivery method you chose. Unless authorized by the Project Manager, no other City official or employee may speak for the City with respect to this solicitation. Any Respondent seeking information, clarification, or interpretations from any other City official or City employee is advised that such material is used at the Respondent's own risk. The City will not be bound by any such information, clarification, or interpretation. Following the



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submission deadline, Respondents shall continue to direct communications to only the City Project Manager. The Project Manager will send out information to responding companies as decisions are finalized.



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I. Introduction

Long a center of green technology and innovation, the City of Seattle ("City") has adopted progressive policies for urban design, building standards, clean energy and climate change. The City has established aggressive climate protection and energy conservation goals. Most recently, the City began working towards a goal to be carbon neutral by 2050, defined as net zero greenhouse gas (GHG) emissions. To be successful, the City recognizes it will need to develop and implement an aggressive and diversified approach that incorporates both innovation and best practices.

The City recognizes that district energy systems, with their capacity to provide buildings with efficient and affordable clean (low carbon) energy for space heating, domestic hot water and in some cases cooling, have proven a cost-effective way to achieve deep GHG reductions in high density, mixed use neighborhoods. District energy systems also offer a platform for addressing other community issues and priorities including energy security, waste management, and local economic development.

There is significant interest within Seattle for district energy solutions. Seattle already has several existing district energy systems (e.g., Seattle Center, University of Washington, and Seattle Steam) as well as several recent studies and proposals for new district energy systems (e.g., Interbay, Yesler Terrace). Seattle has also missed several recent opportunities for introducing or expanding district energy. One notable example is the South Lake Union area of Seattle, where a 2004 study found that district energy could offer a viable opportunity to reduce both electrical load and GHG emissions.

The City believes the modernization and expansion of existing district energy systems, and the development of new systems, particularly in higher-density developments and neighborhoods of Seattle, has the potential to be an important element of the City's carbon neutral strategy and to meet other community objectives. At the same time, the challenges faced by existing systems and recent examples of missed opportunities for district energy such as South Lake Union have highlighted a potential need for more proactive City vision, policy and coordination.

In 2011, the City's Office of Sustainability and the Environment (OSE) engaged Compass Resource Management to evaluate issues, barriers and opportunities for advancing district energy in Seattle. In parallel with the policy analysis, OSE engaged AEI (Seattle) and COWI (Denmark) to screen the district energy potential in ten pre-selected neighborhoods in Seattle.

The AEI/COWI screening study identified four areas as having particularly high (near-term) promise for district energy: First Hill (including Yesler Terrace), Capitol Hill, University of Washington, and South Lake Union (future development). First Hill was identified as one of the most promising areas for expansion of district energy in the City. First Hill has one of the highest current energy densities in the City. More than 40% of Seattle Steam's existing annual load is located on First Hill, including three large hospitals - Harborview, Swedish and Virginia Mason ("Hospitals"). In addition, significant new development is anticipated on First Hill. By 2030, housing supply is expected to grow by nearly 165% and employment



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by nearly 15%. First Hill is also adjacent to Capitol Hill, which was identified as another promising area for district energy given density, retrofit potential among existing building stock, and anticipated new development.

Seattle Housing Authority ("SHA") is planning a large new redevelopment on First Hill at Yesler Terrace. This development represents a particularly important opportunity for expanding and modernizing district energy on First Hill. Yesler Terrace could add 2 – 5 million square feet of new floor area to First Hill by 2030, the equivalent of up to 50% of the floor area of the existing hospitals on First Hill. SHA has expressed interest in and has studied district energy and water reuse as methods of achieving high levels of environmental performance at Yesler Terrace. However, to date studies of district energy for Yesler Terrace have not examined the possible synergies with nearby hospital loads, other new developments outside Yesler Terrace, or existing district energy infrastructure on First Hill in sufficient detail.

At the same time, the Hospitals have expressed concerns about the level and transparency of their current energy costs, as well as the security of existing district energy infrastructure on First Hill in a major seismic event. Decisions by the hospitals on First Hill could have significant implications for district energy supply elsewhere in the City and also the City's overall GHG reduction goals. Given their size, any changes in demand by the hospitals will affect costs for other customers of Seattle Steam. Based on Seattle Steam's projected emission factor (with biomass) switching from current district energy supplies and relying instead on 100% gas-fired heat in each individual hospital campus could increase their GHG emissions on First Hill by as much as 12,000 metric tons per year.

By all accounts, First Hill is a strategically important neighborhood for district energy within Seattle. The City sees a need to facilitate a serious exploration of synergies and opportunities among all of the key district stakeholders on First Hill (in particular the hospitals, Seattle Steam, SHA) to determine if there is a collective, long-term district energy strategy to meet various customer and supplier interests. The City also sees an opportunity to test more proactive City policies and legal agreements on First Hill to facilitate district energy solutions that will meet customer objectives and also broader community objectives.

Through this Request for Qualifications ("RFQ"), the City is seeking responses from providers of thermal energy services ("Respondents") describing their qualifications for studying and implementing district energy services throughout First Hill. The City is only seeking responses from teams that can demonstrate they have the desire, capacity and experience to build, own, finance and operate district energy infrastructure, not merely study and design systems.

The focus of this Solicitation is to identify Respondents capable of:

- (i) Collaborating with all stakeholders to identify and study the feasibility of options for various district energy solutions on First Hill;



- (ii) Negotiating long-term service agreements with district energy customers, and supply or infrastructure use agreements with existing infrastructure owners;
- (iii) Developing, owning and/or operating new or upgraded district energy infrastructure and supplies on First Hill, as required; and
- (iv) Collaborating with the City to ensure commercial viability of district energy and maximize community benefits from any district energy infrastructure on First Hill.

While the focus of this RFQ is to address strategic opportunities on First Hill, the City notes it will be considering similar opportunities in other neighborhoods within Seattle, including nearby Capitol Hill. Pending appropriate consultation, the City may also consider expanding the scope of any model / agreements with a successful Respondent on First Hill to other neighborhoods within the City, subject to mutual agreement.

Those interested in submitting a response to this Solicitation should address the requirements outlined in Section VI of this Solicitation. Responses must comply with all submission requirements set forth in this RFQ and must be received **no later than Friday, March 16, 2012**, at the address on Page 1 of this solicitation.

Based on a review of the responses, one Respondent may be selected to enter into a Memorandum of Understanding ("MOU") with the City to conduct due diligence on the opportunity, including a feasibility assessment of district energy opportunities (the "Feasibility Assessment") and, subject to the outcome of such analysis, negotiate definitive agreements, including service agreements between the selected Respondent and initial customers and any other agreements necessary for the successful development of opportunities confirmed in the Feasibility Assessment. The remaining sections of this Solicitation provides additional background on the issues and opportunities on First Hill, the City and stakeholder objectives, possible form of the strategic partnership, expected process, and submission requirements.

II. Background

a) City Policy

The City of Seattle has adopted progressive policies for urban design, building standards, clean energy and climate change. In particular, the City has established aggressive climate protection and energy conservation goals. More recently, the City is working towards a goal to be carbon neutral by 2050, defined as net zero greenhouse gas (GHG) emissions. To be successful, the City will need to develop and implement an aggressive and diversified approach that incorporates both innovation and best practices. The City will also need to consider carefully the full costs and benefits of different combinations of approaches for achieving this goal.



Seattle's GHG emissions are produced from three main sources: transportation, buildings, and industry. At 62%, the transportation sector is the largest source of current GHG emissions. Energy use (heating, cooling, DHW, and plug loads) in Seattle's residential and commercial buildings is the second largest source (21%) of the City's current GHG emissions. Space heating and domestic hot water, in turn, make up a large portion of building energy use and the bulk of their GHG emissions. Industrial operations and processes make up the remaining 17% of total GHG emissions in the City.¹

Increased efficiency in existing and new construction can lower building emissions, but achieving net zero GHG emissions in the building sector will ultimately require greater reliance on low-carbon sources of energy, whether new sources of GHG neutral electricity or other forms of low-GHG energy. In the case of heating, which accounts for a large share of building GHG emissions, there are a variety of potential low-carbon energy sources including both additional investments in green electricity as well as other forms of renewable or waste heat. To date, much of the City's policy has focused on building-scale options. However, there are many low-carbon heating sources that are not technically or economically viable at a building scale. Good examples include co-generation, biofuel-based heat sources, and large-scale heat pump applications such as sewer heat recovery. There are also many sources of waste heat from industrial or other processes in Seattle that could be captured, stored, and used to supply buildings. These opportunities require district-scale thermal energy systems.

OSE recently commissioned a study to develop a proof-of-concept scenario of how the city might be able to achieve carbon neutrality. The study considered technically feasible options for getting to carbon neutrality, without considering political or economic constraints. In the buildings sector, the study indicated that at least 50% of multifamily and commercial buildings would need to be served by on-site heat pumps and/or low-carbon district energy systems by 2050 in order to realize deep carbon reductions in this sector. These strategies are not mutually exclusive and each may be appropriate in different neighborhoods. A fuller assessment of the relative costs and benefits of different strategies in different contexts will be required. The City is using this study as a resource for updating its climate action plan.

The City recognizes that district energy systems, with their capacity to provide buildings with efficient and affordable clean (low carbon) energy for space heating, domestic hot water and potentially cooling, have proven to be an effective way to reducing GHG emissions in the right circumstances. The City believes the expansion and development of district energy systems in some developments and neighborhoods of Seattle has the potential to be an important element of the City's carbon neutral

¹ Seattle City Light currently relies mostly on GHG neutral electricity sources and purchases offsets for any residual GHG emissions. However, for evaluating conservation and alternative resources, the City uses a short-run marginal GHG emission factor for electricity of 600 kg/MWh to reflect the higher carbon intensity of the regional electricity portfolio and the fact that any freed existing renewable resources would likely reduce reliance on fossil-fuel fired resources at the margin in the regional market. In the long run, the City expects all new electricity supplies acquired by Seattle City Light will be from carbon neutral sources, but likely at a higher (new build) cost than the existing resources reflected in retail rates.



strategy. Furthermore, the City recognizes that it must take a more proactive role going forward to realize the benefits of clean district energy systems for Seattle.

Stakeholders on First Hill have expressed support for a new type of district energy partnership to achieve a long-term, collective district energy vision that balances financial, environmental and social objectives. The City considers it has an important role to play in developing and implementing this partnership. In particular, City involvement may be required to:

- Coordinate interests / perspectives among different stakeholders;
- Support a common district energy vision / plan for First Hill;
- Ensure community objectives for GHG and other outcomes are met at the lowest possible cost and without creating other unintended consequences;
- Support modernization and expansion of district energy;
- Increase transparency / credibility of district energy services;
- Create appropriate regulatory structure; and
- Negotiate and monitor energy district franchise agreements

At the same time, the City has not expressed a desire to own and operate district energy systems. The City is interested in other delivery models that will meet public interest objectives without direct ownership or operation of district energy systems by the City, whether in the form of policy, legal agreements or some sort of strategic partnership.

The City has established an Interdepartmental Team (IDT) to support the review and development of policies to support district energy, to review and advance other opportunities for district energy in the City, and to oversee the exploration of options for a district energy partnership on First Hill. Reporting to the Mayor and Council, the IDT is led by OSE and composed of representatives from the City Budget Office, Department of Planning and Development, Seattle City Light, Seattle Department of Transportation, Seattle Public Utilities, and City Council Central Staff.

b) First Hill Neighborhood Overview

The First Hill neighborhood encompasses approximately 251 acres east of I-5 and downtown Seattle (Figure 1). The current building density of First Hill is approximately 53,600 sf / acre. Total existing heating and cooling loads on First Hill are approximately 620,000 MMBtu/year and 1,700,000 ton*hours/year, respectively.²

² From City of Seattle – District Energy Pre-Feasibility Study prepared by AEI / COWI. The cooling load may be underestimated based on the hospital demands.



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The majority of the neighborhood consists of multi-story hospitals, research and medical office buildings along with multi-story apartment and condo buildings. The majority of the existing building stock was constructed in the mid-thirties to mid-fifties and is in fair to good condition. In addition to Hospitals, Seattle University (which has an existing hot water district heating network) is adjacent to First Hill along with a large church complex, a high school and a museum. There are also several SHA complexes, including, low- and medium-rise buildings within the neighborhood.



By 2030, the density on First Hill is expected to reach 83,800 sf/acre. All three hospitals expect some expansion of facilities to 2030. Yesler Terrace, a housing sub-division owned by SHA and located on the southern portion of the district, is slated for major redevelopment over the next twenty years. The existing Yesler Terrace buildings will be replaced in phases, beginning in ~2014, with either steel- or wood-framed multi-unit dwellings between now and 2030 (rate of development will depend upon market conditions). In addition to Yesler Terrace and expansion of existing hospital facilities, additional retail/commercial development is expected adjacent to the Light Rail Station between Capitol Hill and First Hill. Multiple smaller parcels are also expected to be redeveloped throughout First Hill.

c) Seattle Steam

First Hill is served by high pressure steam from Seattle Steam (Figure 2).³ All of the Hospitals are connected to Seattle Steam. The Hospitals utilize steam for virtually all of their heating loads, including sterilization. In older buildings, steam coils are still present. In newer construction, central steam to hot water converters are used, with hot water distribution through the building. Sterilization accounts for up to 1/3 of the Hospitals' total current steam load. Further details on the Hospital Loads is provided below.

Seattle Steam is a private utility that currently supplies steam to nearly 200 buildings in downtown Seattle and on First Hill. With a combined peak demand of ~125 MW, Seattle Steam supplies about 7% of the thermal energy currently consumed in the City. Seattle Steam also generates about \$3 million in annual revenues for the City via various taxes and permit fees. In 2004, Seattle Steam renewed its 50-year non-exclusive franchise agreement with the City. The City Ordinance grants Seattle Steam permission to install, maintain and operate pipes in the rights-of-way within a defined geographic portion of the City (see Figure 3), and to sell, deliver and charge for thermal energy, including steam, condensate, hot water, and chilled water used for space heating and cooling, domestic hot water, humidification, and process loads.

Founded in 1893, Seattle Steam was instrumental to the rebuilding of Seattle after the Great Seattle Fire in 1889, and was also instrumental to the early development of the electric power infrastructure in Seattle through its early reliance on the production of combined heat and power. Seattle Steam has recently undertaken several initiatives to expand and upgrade its existing system including ongoing efficiency improvements in its generation and distribution systems, programs to support efficiency upgrades among its customers, and installation of a biomass plant to displace a large portion of its natural gas use. Other ongoing initiatives to upgrade its system include plans to install a combined heat and power system, to tap groundwater at the main plant, and to begin the long-term process of introducing hot water distribution systems at the periphery of the current steam network.

³ There are no major centralized chilled water systems on First Hill. There are multiple chiller systems throughout the Hospitals and a centralized chilled water system at Seattle University.



Figure 3: Seattle Steam (non-exclusive) District Energy Franchise Area



Table 3: Seattle Steam GHG Emission Factors

	Supply Mix Scenario	
	All Gas Plant (Prior to Biomass Conversion)	After Biomass Conversion**
Seattle Steam Natural Gas	100%	40%
Seattle Steam Biomass	0%	60%
Produced Steam Emission Factor (kg / MWh)	210	84
Delivered Energy Emission Factor (kg / MWh)*	254	102

* Delivered emission factor reflects estimated production and distribution system losses. Emission factor for on-site gas-fired heat at 80% average efficiency = 225 kg/MWh

** Reflects emission factor after expected contribution of Seattle Steam’s new 25MW biomass boiler plant.

d) Hospitals

The Hospitals currently contain approximately 5.5 million square feet of floor space, including health care facilities as well as research, office and administration facilities. There will also be some renewal of existing floor space at the Hospitals. Swedish has the largest total floor area (2.5 million square feet), but 1 million square feet is ancillary to the core health care facilities. Harborview has the largest core health care floor area. The Hospitals constitute large, high quality base loads for any district energy system as most of their facilities operate 24/7 365 days per year. All three hospitals have additional capacity to grow.

The Hospitals provide essential regional services and must be able to continue operating in a major seismic event or other emergency. Harborview is the only Level I adult and pediatric trauma center in Washington, Alaska, Montana and Idaho. Given this, the Hospitals place significant importance on the reliability of their energy supply in a major seismic event. At present, Seattle Steam has backup diesel storage, provisions for emergency water, as well as redundant distribution paths to provide steam. Seattle Steam has also conducted an engineering analysis of steam pipe survival probability in the event of a major seismic event (report provided). The Hospitals expect any long-term solution for First Hill will resolve any outstanding concerns about energy reliability in a seismic event.

Most existing Hospital buildings have direct connection to Seattle Steam and are metered individually. There are no internal campus steam distribution systems within the Hospitals. Many older buildings still have steam end use devices and would require significant retrofits to connect to a hot water system, if that was contemplated. Newer buildings could be connected to hot water systems for space heating.



However, all three hospitals expect to continue to require steam for sterilization, which accounts for up to 1/3 of their total current steam load. Harborview and Swedish have both considered distributed steam plants for existing buildings and hot water plants for new construction to manage energy costs and address reliability concerns. The hospitals rely on distributed chiller plants, with some partial centralization for several buildings.

Historical steam consumption for the three hospitals is summarized below (Table). Steam consumption varies with annual weather conditions. There have also been some changes in floor area at the Hospitals which accounts for part of the historical variances. The forecast consumption reflects anticipated consumptions under the 20-year average of weather conditions in Seattle. The Hospitals consume an estimated 126,600 MWh of steam annually (including ancillary space) under average weather conditions, with an estimated combined peak demand of 45 MW (based on an estimated Equivalent Full Load Duration of 2,800 hours). There may be opportunities for efficiency upgrades at all three hospitals to improve energy recovery from condensate, thereby reducing steam consumption.

Virginia Mason recently signed a new long-term contract with Seattle Steam. Swedish has about 10 years remaining on its current service agreement with Seattle Steam. Harborview’s service agreement is up in 2013. Harborview is currently exploring options for an energy system serving its own campus from a facility in the proposed Harborview Hall preservation. Bidders in that process have been encouraged to consider possible synergies with this RFQ process. At a minimum, it is expected the study of an energy system for Harborview will provide a useful benchmark for comparison with any collective strategies on First Hill.

Table 4: Historical Hospital Steam Consumption

	Heating Degree Days	Harborview* (MWh/MWh)	Swedish (MWh)	Virginia Mason (MWh)
Current (Average Weather)	3,084 (20yr Average)	59,200	46,839	20,640
2010	2,797	53,899	44,617	18,535
2009	3,422	58,367	49,051	18,333
2008	3,528	53,723	49,063	17,833
2007	3,310	46,162	47,002	17,332

* Includes new building at Ninth and Jefferson adding in 2007. Prior to March 2011, consumption for this building was underestimated because of an undersized steam meter. Current consumption reflects



updated forecast based on corrected consumption estimates for Ninth and Jefferson, adjusted for average weather..

e) Yesler Terrace

SHA, established in 1939, is a public corporation governed by a seven-member Board of Commissioners. The agency owns and operates buildings on more than 400 sites throughout the city, and provides long term rental housing and rental assistance to more than 26,000 people. Since 1995 SHA has completed major public housing redevelopments of the New Holly, Rainier Vista, and High Point developments into mixed-income, mixed-tenure communities that have transformed these areas into new neighborhoods within the City of Seattle, encompassing nearly 300 acres and creating approximately 4,300 new units of housing, as well as new infrastructure, parks and community facilities. SHA financed these redevelopments through consolidation of its public housing program onto a smaller footprint within the existing sites and then selling the remaining parcels to developers in order to provide the necessary infrastructure and site improvements that federal funding sources did not cover. The redevelopment plans at NewHolly, Rainier Vista and High Point incorporated green design features. At the most recently completed High Point project, SHA implemented an aggressive and highly successful green building and low impact development program in partnership with the Built Green program and Seattle Public Utilities.

SHA is proposing redevelopment of Yesler Terrace, a public housing community located on the southern slope of First Hill in Seattle. The 36-acre (including rights-of-way) Yesler Terrace Redevelopment site currently contains 561 public housing units, a community center and various other office spaces that primarily provide social services or serve as the administration offices for service providers. Redevelopment is proposed in order to create a mixed-income, mixed use community that is intended to better serve existing and future residents. The new community could comprise as much as 3.9 million sf of residential uses, 900,000 sf of office uses and 150,000 sf of commercial and other uses. Redevelopment will occur in phases between 2014 and 2030. Development will likely commence with housing components in 2014. The rate of development of market housing will depend upon broader economic conditions. Similar to the previous redevelopments, SHA plans on consolidating the public housing footprint and sell the remaining land to developers in order to finance replacement of the existing public housing and associated infrastructure. While SHA will retain ownership of some buildings on the existing site once the project reaches completion, the majority of the structures will be held by separate entities. SHA plans on selecting a master-development partner in the coming months to facilitate infrastructure improvements and site preparation.

At the initiation of the planning effort, SHA convened a Citizen Review Committee who developed a set of Guiding Principles for the redevelopment. The Environmental Stewardship and Sustainability principles encouraged sustainable design for a positive and healthy community for current and future generations.



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The redevelopment will involve installing and in some cases replacing infrastructure systems. With the support of the City, SHA intends on pursuing economically feasible sustainable design features that are anticipated to exceed code compliance. To that end, SHA has conducted a Sustainable District Study (<http://www.seattlehousing.org/redevelopment/yesler-terrace/archive/index.html#sustainablestudy>) to assess the feasibility of various infrastructure options, including district energy. In a preliminary feasibility assessment, two options were considered, a GeoExchange/Solar system and Combined Heat and Power. To date primarily stand-alone district energy options within Yesler Terrace have been studied, although possible interactions and synergies with existing loads and district energy infrastructure on First Hill have been recognized. In addition to district energy, SHA is also considering third party delivery models for other district infrastructure involving water reuse.

SHA contemplated issuing an RFQ for a district energy service provider to complete the feasibility assessment and deliver the selected system. Given the possible synergies with other loads and infrastructure on First Hill, and the City's broader interests in district energy infrastructure, SHA has deferred issuing an RFQ for Yesler Terrace. The City is interested in Respondents that would contemplate a stand-alone system for Yesler Terrace in the event there are no synergies identified with other loads and infrastructure or agreements cannot be reached with other major customers on First Hill, and there is still a business case for a stand-alone system at Yesler Terrace. Preference may also be given to Respondents that are capable of considering possible synergies with onsite total water treatment/reuse strategies, and that may have abilities and interests in delivering other district infrastructure in Yesler Terrace.

In order to facilitate redevelopment, the City of Seattle is working on legislation necessary to allow the proposed master plan to move forward. The legislative package will include Land Use Code amendments creating a new zone (Master Planned Community – Yesler Terrace) and applying this zone to SHA property; a planned action ordinance; street vacation/rededication; a reconfiguration of the Yesler Community Center's property line; and a cooperative agreement between the City and SHA. To allow flexibility over the course of a 15-20 year phased development, the proposed legislation incorporates several new planning tools, including a planned action ordinance to address environmental impacts of new development and development standards that encourage shared parking, landscape amenities, and open space. It is anticipated that proposed legislation will be transmitted to the Seattle City Council in the first quarter of 2012.

f) Summary of Core Loads of Interest for District Energy on First Hill

The table below summarizes the current and anticipated floor space and energy use of core loads to be considered in any Feasibility Assessment. The Hospitals expect to expand their floor area in the next decades but have no specific plans or timing at the moment. In addition, the table also summarizes current annual energy costs and GHG emissions (under several scenarios) for the Hospital loads. There are other smaller existing steam or natural gas loads on First Hill, as well as other potential in-fill



developments, that should be considered in the evaluation of district energy solutions for First Hill. It is expected the Feasibility Assessment will consider several scenarios for loads and additional development on First Hill, including options for a stand-alone system at Yesler Terrace in the event there are no synergies or benefits (or agreements) for including the Hospitals and/or existing district energy infrastructure on First Hill.⁴

Table 5: Existing Hospital Loads and Projected Yesler Terrace Loads

	Harborview*	Swedish	Virginia Mason	Yesler Terrace	Total
Floor Area (millions sf)					
Core	2	1.5	1		4.5
Ancillary		1			1
Total (to 2025)	2	2.5	1	2 - 4.8	7.5 - 10.3
Current Steam Consumption (MWh)	59,000	47,000	21,000		126,600
Hospital Energy Intensity (kwh/sf/year)	29	19	21	35,000	35,000
Estimated Yesler Terrace Thermal End Use Load (MWh)					
Estimated Non-Diversified Peak (MW)*	22	17	8	20	67
Current Cost (millions)	\$4	\$3.2	\$1.4		
Current Cost (\$/MWh)**	~68	~68	~68		
GHG Emissions (metric tons/yr)					
On-site Gas (hypothetical)	13,300	10,500	4,600		
Seattle Steam (Gas Only)***	17,700	14,100	6,200		
Seattle Steam (Incl. Biomass)***	7,100	5,600	2,500		

* Metered peak consumption not available. Peak demand is estimated based on estimated equivalent full load duration of 2700 hours for the hospitals and 1700 hours for mixed use development.

** Based on projected 2012 rates and consumption under average weather conditions. As a district energy service this reflects the total cost of supplying the energy taking into account fuel consumption, operations and maintenance, and capital recovery (including redundancy and back-up).

⁴ Even if a stand-alone system is contemplated at First Hill, short-term and long-term energy supply could be provided from several sources including sources located within Yesler Terrace, waste heat from surrounding loads such as the hospitals, or Seattle Steam. Seattle Steam has indicated it may have adequate capacity to serve any development at Yesler Terrace.



***Reflects Seattle Steam's estimated delivered GHG emission factors prior to and after commissioning its new 25 MW biomass boiler plant, but before any contribution of combined heat and power which is currently under consideration.

III. Solicitation Objectives

Through this Solicitation, the City wants to explore opportunities to develop and deliver a collective, long-term vision for a flexible, reliable, cost effective and environmentally responsible district energy system on First Hill, leveraging existing loads, existing infrastructure and expected new development. The City would like to explore a collective vision that considers and balances the following objectives:

- Provides reliable thermal energy solutions under normal and emergency conditions (including any potential synergies between heating and power planning for First Hill);
- Provides cost-effective thermal energy services (relative to business as usual) with transparent and predictable/stable pricing;
- Leverages existing infrastructure and minimizes stranded historical or future district energy investments;
- Contributes to the city's long-term GHG reduction goals at lowest possible cost and without unintended consequences;
- Achieves modern, flexible and adaptable energy infrastructure, including current and future district energy systems;
- Promotes local economic development (cost-effective and stable thermal energy prices, use of local technologies, use of local energy resources); and
- Maximizes other community benefits while minimizing other community impacts, including benefits of impacts for other neighborhoods and district energy customers or opportunities in Seattle.

IV. Anticipated Process

The City is acting as a facilitator to explore a collective vision for First Hill that meets stakeholder and City objectives. Through Council Resolution, the City has issued this RFQ to seek a suitable partner to enter into exclusive feasibility assessment and negotiations. This may include provisions for the recovery



of certain costs should the process not result in Definitive Agreements. The form, amount and conditions for cost recovery will be one of the evaluation criteria the City will use in selecting a preferred Respondent.

The City has specified a range of objectives for this process, and it remains open to the final outcome, which will also depend upon consent of other key stakeholders such as the Hospitals, SHA and Seattle Steam. The City is hopeful of a win-win solution that can achieve an appropriate balance across objectives and stakeholders.

The City's ultimate role in the implementation of any solution has not been determined. As noted elsewhere, beyond acting as a convenor and representing the broader public interest in the Feasibility Assessment and negotiations, the City expects at a minimum it will play a role in providing a franchise and supportive policy framework. The exact nature of the policy framework will depend upon the scope and form of proposed solutions and their public benefits. Potential City roles are discussed further below.

The overall process consists of four phases: 1) Selection of Preferred Respondent; 2) Feasibility Assessment; 3) Negotiation; and 4) implementation. In reality, the City expects there will be some overlap and iteration between the Feasibility Assessment and Negotiation phases. The basic process steps are summarized below. Respondents are expected to comment and elaborate upon these as relevant.

1) Selection Phase:

- Issue RFQ [Council Resolution]
- Bidder's meeting and question period.
- Receive and evaluate responses.
- Consultation with stakeholders on responses;
- Possible interviews with a short-list of candidates
- Select preferred Respondent.
- Negotiate exclusive MOU.

2) Feasibility Assessment / Vision Phase

- Conduct feasibility / vision development.
- Select preferred long-term vision(s) and near-term actions.

3) Negotiation Phase

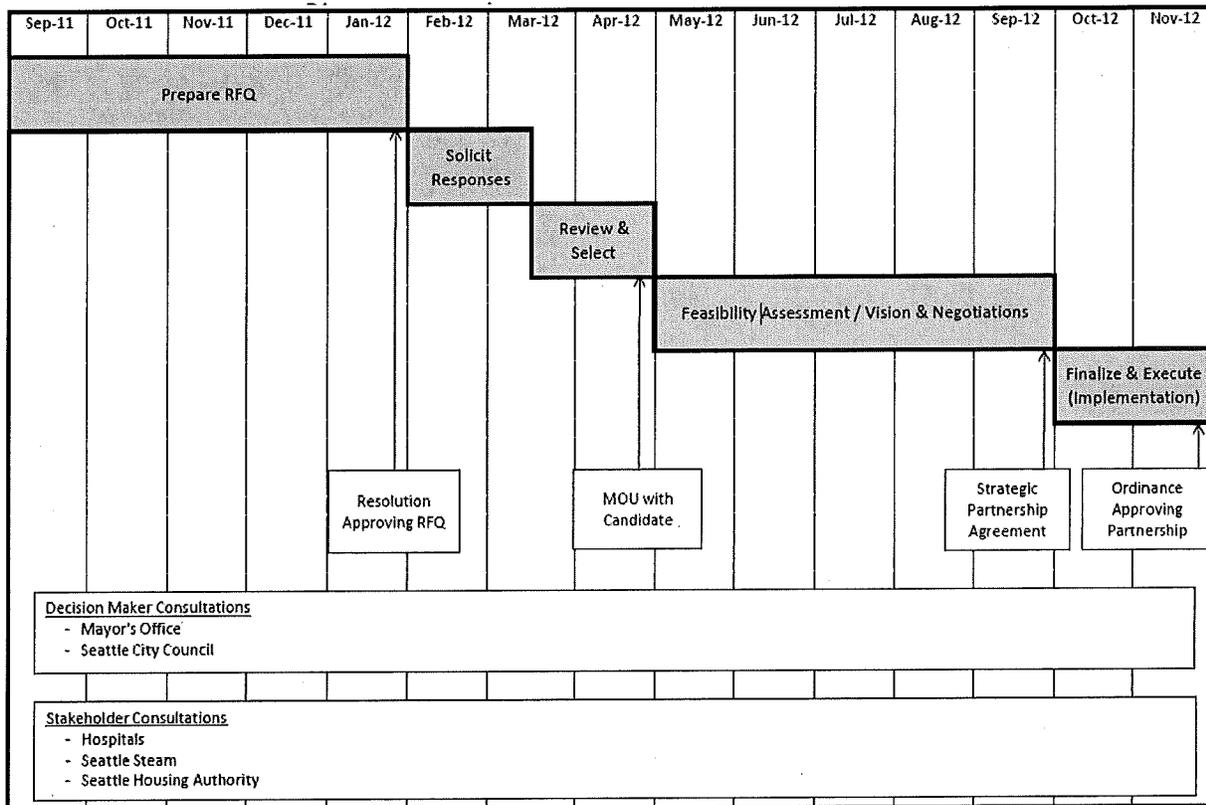
- Negotiate definitive agreements, as required.

4) Implementation Phase

- Implementation of vision.



Tentative Timeline for First Hill DE Partnership Development



V. District Energy Feasibility / Anticipated Scope of Work

The first task for the successful Respondent will be to work with all stakeholders to identify and evaluate collective, long-term district energy solutions for First Hill. It is expected the Feasibility Assessment will consider several scenarios for loads and energy supply development. Some specific considerations in the scenario development and evaluation will include the following:

- Existing thermal loads at the Hospitals, other potential existing loads on First Hill that could be connected to district energy, and anticipated new loads at Yesler Terrace and elsewhere in First Hill;
- Existing district energy infrastructure on First Hill, including cost, condition, reliability, and environmental performance;
- Plans and opportunities for increasing the efficiency of existing loads, including waste heat recovery;



- Opportunities to introduce modern hot water distribution systems on First Hill, recognizing the existing and ongoing requirements for steam at the Hospitals and also other ways of meeting those steam requirements;
- Synergies among different load types on First Hill;
- Synergies between heating and cooling requirements, as relevant;
- Impact on peak / annual electrical loads and electricity system costs;
- Other sources of supplemental or long-term thermal energy supplies on First Hill, including high-grade and low-grade thermal energy supplies such as bioenergy, sewer heat recovery, combined heat and power, and solar thermal.
- Ways to measure and evaluate the reliability of thermal energy supply options to hospital loads on First Hill under emergency conditions (e.g., major seismic event) and cost-effective opportunities to improve those measures;
- Collective solutions for all of First Hill vs. stand-alone strategies for Yesler Terrace and/or the Hospitals;
- Interim, transitional and supplemental strategies to leverage existing infrastructure and achieve long-term vision;
- Impacts of various strategies on long-term GHG, long-term customer costs (relative to Business as Usual and new stand-alone strategies), reliability, flexibility and local economic development; and
- Explore financing and policy tools the City may be able to utilize to facilitate or promote a cost-effective and sustainable district energy solution for First Hill.

The City recognizes that any district energy solution for First Hill will need to be open ended and adaptive given the long life of district energy infrastructure, uncertain and open-ended nature of neighborhood development and renewal, and evolving energy markets and technologies. The vision is expected to provide a long-term view of possibilities for First Hill and immediate actions and investments that will support that long-term view while minimizing the possibility of stranded assets and protecting ability to adapt and evolve the vision as development and investment proceed.

The City expects the successful Respondent to this RFQ will cover its own internal costs for all feasibility assessment and negotiations based on the magnitude of the potential opportunities and an exclusive MOU. The City and other stakeholders are expected to contribute through the provision of data, review of analysis, and their own in-house costs of negotiations, as relevant. The successful Respondent may



rely on third parties for aspects of Feasibility Assessment. The City expects the Respondent will fund third party costs but may include provisions for some cost recovery from the City in the event the process does not reach Definitive Agreements as part of the exclusive MOU. Respondent s should indicate clearly in their submissions their plans for the Feasibility Assessment and their expectations with respect to funding and/or cost recovery, including any cap on costs or conditions for recovery.

VI. Potential City Roles in Vision Development and Implementation

The City is acting as a facilitator to explore a collective vision for First Hill that meets stakeholder and community objectives. The City expects the successful respondent will work with all key stakeholders (e.g., the City, Hospitals, Seattle Housing Authority, other potential customers, and Seattle Steam) to explore a collective district energy vision for First Hill. The outcome may be a combined solution for all of First Hill or a subset of stand-alone solutions. It is expected that any solutions will require a series of Definitive Agreements. At a minimum it is expected these would include long-term Retail Service Agreement s with one or more Hospitals and other potential customers, an Infrastructure or Master Service Agreement for Yesler Terrace, a Wholesale Service Agreement with Seattle Steam and a Franchise Agreement with the City.⁵

In addition to a traditional Franchise Agreement governing use of public rights of way, the City is also open to exploring other forms of policy support, agreement or strategic partnership, if necessary, that would support and promote community objectives for district energy on First Hill. At this time, the City is not contemplating any ownership or financing of district energy in First Hill (except possibly applying for and allocating grants from senior levels of government as appropriate), but is exploring other strategies to promote City objectives.

The City has conducted some preliminary assessment of other possible partnership models. One example is a Joint Cooperation Agreement (JCA) similar to those implemented by some communities in the UK. In addition to the normal terms and conditions in a Franchise Agreement, JCAs have included other formal terms and conditions such as access to energy sources and community infrastructure as required (e.g., sewer heat recovery); provisions for direct City oversight of district energy rates and service; agreement provisions for property taxes, franchise fees and use of City land; coordination of infrastructure planning and growth opportunities; joint marketing; other formal governance structures; and other public considerations that may help advance cost-effective, reliable and environmentally

⁵ Although a Master Infrastructure or Service Agreement is contemplated with SHA for Yesler Terrace, it should be noted that individual development parcels will be sold to third party developers and individual service agreements will likely also be required with each development.



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OSE Approving First Hill Partnership ATT A
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responsible district energy solutions on First Hill. It is expected any model would include provisions for future equity participation or acquisition of the retail service provider by the City.

The City also notes it has broad powers to facilitate district energy under existing statutes in Washington, in particular Chapter 35.97 RCW: Heating systems. Enacted in 1983, Chapter 35.97 RCW authorizes a municipality (including counties, cities, towns, port districts and water-sewer districts) "to establish heating systems and supply heating services" through a municipal heating utility through an ordinance or resolution. Once established, there are a variety of ownership structures possible, from full municipal ownership to a public-private partnership to a full contracting out model. Further analysis will be required by the City to determine whether this statute is necessary or useful to assist in the creation of the proposed partnership. The City has made no decisions as to the appropriate policy and legislation tools to facilitate or promote an expanded and modernized district energy system on First Hill, if feasible and desirable. These will be explored by the City in parallel with the due diligence and negotiations with the successful Respondent. The City expects Respondents will also have creative ideas on innovative mechanisms the City may use to ensure project success and meet the interests of all parties.

Initially, there would likely be limited changes in assets, operation or pricing on First Hill. But it is anticipated that over time there would be cost savings to existing customers as a result of growth on First Hill, and opportunities to integrate new distribution assets and local (low-grade) renewable and waste heat resources owned and operated by the new retail service provider.⁶ It is expected the new provider would be responsible for upgrading and expanding district energy infrastructure on First Hill, as appropriate. While there is an ongoing need for steam among the Hospitals, it is expected that expansion of district energy would involve mostly hot water systems and could include incremental alternative energy sources over time. There may also be opportunities to replace existing steam distribution infrastructure over time (with growth or during major refurbishments) with hot water, possibly using distributed steam production for other purposes (e.g., sterilization). It is anticipated any arrangement for First Hill would be run under some sort of "open books" model, similar to other regulated energy utilities.

If successful and subject to appropriate consultations, the partnership and/or provisions in a demonstration ordinance could eventually be expanded to other neighborhoods within the City where district energy is given a high priority. Given upfront development time and costs, as well as potential efficiencies for the City and retail provider, the City will consider leveraging any partnership on First Hill for pursuing other opportunities, and in particular any synergies with possible district energy systems to serve nearby Capitol Hill.

⁶ Cost savings may come from a variety of sources including additional economies of scale, synergies among loads (e.g., capacity rationalization, waste heat utilization), and efficiency upgrades with the ability to redeploy freed capacity to serve future growth.



VII. Submission Instructions

This section details the City instructions for your submission. The City reserves the right in its sole discretion to reject the submission of any respondent that fails to comply with the instructions.

Solicitation Schedule

Deadline for Submissions: Respondents are required to submit four (4) hard copies and one electronic copy of their response to Christie Baumel at the address listed on Page 1 of this solicitation. Submissions must be received on or before: **12:00 pm on Friday, March 16, 2012.**

Intent to Respond: Respondents are encouraged to submit an optional Notice of Intent to Respond in writing to christie.baumel@seattle.gov by **5:00 pm Tuesday, February 28th.**

Information Session/Bidders' Workshop: An optional information session will be held for prospective respondents. The session will be held: **Monday, February 27th, 2:30-4:30 pm in Seattle Municipal Tower, 700 5th Avenue, Room 4050.**

Written Questions: Questions relating to this RFQ may be directed in writing to christie.baumel@seattle.gov. Questions will be accepted until Tuesday, February 28th at 5:00 pm, and responses will be shared with all prospective respondents (those who have submitted an optional Notice of Intent to Respond) by Tuesday, March 6th.

The City reserves the right in its sole discretion to reject the submission of any respondent that fails to comply with submission instructions. Respondents are advised they have no claim for compensation in the preparation of their submissions and that by submitting a response to this RFQ, each Respondent shall be deemed to have agreed that it has no claim.

Confidentiality and Ownership of Submissions: The City may consult First Hill stakeholders from outside City government in the review and selection process for this RFQ, and may share portions of the solicitation responses for this purpose. Submissions should note any sections considered sensitive or proprietary. Any such noted sections will not be shared in the selection process for this solicitation. With this stated intent however, the City will continue to be responsive to all requests for disclosure of public records as required by State Law (the State of Washington's Public Records Act is referenced in Section VIII General Conditions).

Submission Content

All Respondents are required to provide the following information with their submissions, and in the order that follows:



TITLE PAGE	The title page shall include the RFQ title and number, submission date, Respondent name, address, telephone number, email contact, and the name and title of the contact person.
TABLE OF CONTENTS	Page numbers should be indicated.
EXECUTIVE SUMMARY	A short summary of the key features of the Response demonstrating the Respondent's understanding of the requirement.
RESPONDENT PROFILE	Provide a description of your firm's background and profile including the number of years in business. Identify and provide resumes for the key personnel in the proposed team and outline what their roles will be in this project. If the proposal is for a consortium, information must be provided on all participants and the submission must name the firm that is deemed to be the Respondent representing the consortium in the event the consortium is selected.
PAST EXPERIENCE	Provide a description of past relevant projects and/or previous experience in designing, building, financing and/or operating district energy systems (with reference to the types of systems), with particular reference to experience with projects of similar type and size. Also, include a summary of operating experience focused on but not limited to district energy system operation and maintenance, fuel procurement, business assessment of alternative energy sources, related ancillary businesses such as metering and billing, rate design, and the independent regulation of utilities. Provide an indication of familiarity with the City and the local planning and energy context. If applicable, provide the name of contact person, address and telephone numbers for the referenced companies or organizations.
FINANCIAL CAPACITY	Respondents must demonstrate their financial capacity to design, build, finance, and operate a utility over an extended period of time. To demonstrate this requirement, Respondents must provide: <ul style="list-style-type: none">• A description of the financial and business resources available to support the modernization and expansion of district energy on First Hill, including development funding and capital structure.• Audited financial statements for a minimum of the last two years and a maximum of the last five years.• Most recent credit rating report, if applicable.
DRAFT MOU	Provide a draft form of the MOU the Respondent would expect the parties to sign in order to proceed with the Feasibility Assessment / Vision Phase. Outline key expectations for the City and commitments of the Respondent. Include some preliminary description of the likely requirements for Feasibility Assessment / Vision Phase, and the key business terms of any Definitive Agreements required for implementation of the district energy



system and business partnership, if relevant. The MOU may include expectations for recovery of any study or due diligence costs, either upfront or in the event Definitive Agreements are not reached. Clearly state what costs may be subject to recovery (upfront or upon failure to execute Definitive Agreements), any cap or management protocols for these costs, and the specific terms for recovery.

It is possible the final negotiated MOU will be submitted to the City Council for approval. The City will work with the selected Respondent to ensure all proprietary information is redacted from public disclosure, subject to State of Washington's Public Records Act (RCW Chapter 42.56).

FEASIBILITY

Provide an overview of the Respondent's approach to the Feasibility Assessment / due diligence for First Hill. Include a preliminary overview of the types of demand / supply scenarios that may be considered, evaluation criteria and considerations, approach for involving the City and key stakeholders, expected timelines, use of external consultants (if applicable), and expected cost and cost sharing arrangements (if applicable).

PRELIMINARY BUSINESS AFFRANGEMENTS AND OPERATIONS MODEL

Provide an example of a possible business / partnership model that may work for First Hill, including expected financing approach and costs, partnership structure and governance, scope of services and operating model for partnership, risk allocation, pricing principles, environmental objectives, and principles / incentives to guide and encourage system expansion by the district energy Respondent. Indicate expectations with respect to City participation in design, day-to-day operation, and ongoing development and expansion. Indicate resources and skills within and outside the Respondent that would be made available to the district energy system for the efficient and effective operation of the district energy system.

RESPONSE

Respondents should address the following as a minimum:

- 1) Provide a description of how each of the Solicitation Objectives in Section III can be met through the Respondent's submission, as well as possible trade-off scenarios for consideration by the City.
- 2) Provide some preliminary views on design considerations for the district energy system, including those technologies, system configurations, and allocation of assets / responsibilities (between the City, customers/developers and the respondent) that may be most appropriate for this application.
- 3) Provide a brief overview of possible modifications or additional strategies the Respondent may pursue to improve project outcomes or



add additional value for the City, developers, and end users. These should include strategies the Respondent may use to advance the timing of alternative energy sources while maintaining a competitive service for end users.

- 4) Confirm ability to meet proposed timelines identified in Section IV, suggested variance in timelines, and strategies to mitigate schedule risks.
- 5) Respondents shall provide at least 3 current district energy clients as references. Please provide details on the projects and the references' role in the project. Greater weight will be placed on examples and references involving ongoing involvement in system operation and expansion.
- 6) A brief testimonial as to why the Respondent should be interviewed for this project.

VIII. Evaluation of Submissions

The evaluation criteria for the review of submissions are as follows:

- The Respondent's ability to meet the Solicitation Objectives as set out in Section III of this RFQ;
- The Respondent's draft MOU (proposed terms and conditions for the Respondent to undertake Feasibility Assessment and negotiations);
- The Respondent's proposed approach to feasibility/due diligence, including approach to working with the City and key stakeholders, as well as timeline expectations for completing the feasibility and due diligence;
- The Respondent's business and technical reputation and capabilities of its personnel;
- The Respondent's general strategy and approach to providing a competitively-priced, reliable and environmentally responsible utility service to end-users, including approach to pricing, service agreements, transparency and governance;
- The range and suitability of possible partnership arrangements, policies and other strategies that would be considered by the Respondent for the delivery of district energy services on First Hill;
- Evidence of the familiarity and experience with the local planning, energy and legal context, district energy design and implementation, utility management and operation, financing, and partnerships;
- Evidence of the Respondent's innovation, flexibility, customer responsiveness, and community sensitivity in the delivery of district energy services; and



- The Respondent's financial and organizational capacity to undertake the project, including ability to ensure continued growth and renewal of district energy infrastructure, as appropriate.

Although not the primary focus of this RFQ, the City will also give some consideration to the Respondent's interests and capabilities to deliver other district infrastructure related to water reuse, as SHA has expressed an interest in, and as is mentioned on page 17 of this Solicitation. However, this criterion will only be considered in the context of the Respondent's ability to deliver on the primary focus of district energy.

The City wants to ensure the best possible outcome for this project and invites Respondents to include in their submissions commentaries on opportunities and/or challenges related to the Project. Respondents should also identify any specific constraints the City should be aware of concerning its own submission or the project in general.

IX. General Conditions

1. **Not a Solicitation of Competitive Bids.** This Solicitation is not a solicitation of competitive bids. The City specifically reserves the right in its sole discretion to determine which response best serves the public good.
2. **City Discretion.** The City reserves the right to:
 - A. Revise the solicitation, evaluation, or selection process including extending the deadline or cancelling without selecting a Respondent.
 - B. Waive informalities and irregularities in the submissions received in response to this Solicitation.
 - C. Disqualify without recourse or appeal any or all submissions.
 - D. Reject any or all submissions with or without cause.
 - E. Determine the timing, arrangement and method of any presentation throughout the process.
 - F. Verify and investigate the qualifications and financial capacity of the Responder, and any of the information provided in the response.
3. **Accuracy of Information.** Every effort has been made to provide current and correct information; however, unless citing a specific City resolution or plan, the City makes no representation or warranty with respect thereto.



- 4. Public Records.** The State of Washington's Public Records Act (Release/Disclosure of Public Records)
Under Washington State Law (reference RCW Chapter 42.56, the *Public Records Act*) all materials received or created by the City of Seattle are considered **public records**. These records include but are not limited to proposal submissions, agreement documents, contract work product, or other material.

The State of Washington's Public Records Act requires that public records must be promptly disclosed by the City upon request unless a judge rules that RCW or another Washington State statute specifically exempts records from disclosure. Exemptions are narrow and explicit and are listed in Washington State Law (Reference RCW 42.56 and RCW 19.108). For more information, visit the Washington State Legislature's website at <http://www1.leg.wa.gov/LawsAndAgencyRules>).

If you believe any records you are submitting to the City as part of your submission or contract work product, are exempt from disclosure you can request that the City not release the records until the City notifies you about the pending disclosure. To make that request, you must complete the appropriate portion of the attached Non-Disclosure Request form and very clearly and specifically identify each record and the exemption(s) that may apply. Only the specific records or portions of records properly listed on the form will be protected and withheld for notice. All other records will be considered fully disclosable upon request.

If the City receives a public disclosure request for any records you have properly and specifically listed on the Questionnaire, the City will notify you in writing of the request and postpone disclosure, providing sufficient time for you to pursue an injunction and ruling from a judge. While it is not a legal obligation, the City, as a courtesy, allows up to ten business days to file a court injunction to prevent the City from releasing the records (reference RCW 42.56.540). If you fail to obtain a Court order within the ten days, the City may release the documents.

- 5. Restrictions on communication.** Every effort has been made to include herein all the information necessary to prepare and submit a responsive submission to this Solicitation. However, in the event additional information is desired, please adhere to the following:

If you have a question about any of the information or requirements contained in this Solicitation, direct your question in writing to: christie.baumel@seattle.gov by February 28, 2012.

Only questions submitted prior to the deadline for questions will receive a response. All material questions and answers will be posted to the following website at http://seattle.gov/environment/district_energy.htm. Although the City may make a courtesy effort to provide notice of any such posted questions and answers to parties that have indicated their interest and provided the above Project Manager with an email address, the City is under



no obligation to do so. As such, parties interested in this Solicitation should refer frequently to the website for information about this Solicitation.

No Contact. During the course of this Solicitation process, Respondents are encouraged to refrain from undertaking any activities or actions to promote or advertise their submissions except in the course of City-authorized presentations or to make any direct or indirect (through others) contact with members of the City, IDT members (if named) or City staff members not identified in this Solicitation as a contact for specific information, except upon prior approval of the above stated Project Manager.

6. **Costs of Respondents.** The City accepts no responsibility or obligation to pay any costs incurred by any potential or eventual Respondents in the preparation of a submission, or in complying with any subsequent request by the City for information or participation throughout the evaluation process.
7. **Conflicts of Interest.** Respondents (including officer, director, trustee, partner or employee) must not have a business interest or a close family or domestic relationship with any City official, officer or employee who was, is, or will be involved in selection, negotiation, drafting, signing, administration or evaluating Respondent performance. The City shall make sole determination as to compliance.
8. **Protests.** Interested parties that wish to protest any aspect of this RFQ selection process are to provide written notice to the City Project Manager for this solicitation.

The City has rules to govern the rights and obligations of interested parties that desire to submit a complaint or protest to this RFQ process. Please see the City website at <http://www.seattle.gov/contracting>. Interested parties have the obligation to be aware of and understand these rules, and to seek clarification as necessary from the City. Note that there are time limits on protests, and submitters have final responsibility to learn of results in sufficient time for such protests to be filed in a timely manner.

X. Attachments / Background Materials

Materials will be available by link to City website

- Non-Disclosure Request Form
- District Energy Policy Report – by Compass Resource Management
- District Energy Pre-Feasibility Report – by AEI/COWI
- Yesler Terrace District Energy Study
- Seattle Steam Seismic Study
- Hospital Strategic Energy Management Plans
- The Seattle Fault Scenarios (2005) (<http://www.eeri.org/site/projects/eq-scenarios/seattle-fault>).
- Capitol Hill District Energy Study
- Council Resolution Approving the First Hill Partnership RFQ



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- Harborview Hall Energy Plant RFP



FISCAL NOTE FOR NON-CAPITAL PROJECTS

Department:	Contact Person/Phone:	CBO Analyst/Phone:
OSE	Christie Baumel / 3-7173	Calvin Chow / 4-4652

Legislation Title:

A RESOLUTION establishing the City's intent to seek a private sector partner to assist it in exploring possible models for expanding, upgrading, and/or developing district energy systems in certain areas of Seattle.

Summary of the Legislation:

This legislation states the Council's support for the Office of Sustainability and Environment to issue a Request for Qualifications to solicit a private district energy provider to explore opportunities for district energy service on First Hill.

Background:

The City has a long-standing interest in efforts aimed at reducing carbon emissions in the city. District energy has the potential to assist in that effort by heating and/or cooling buildings within a district with energy from efficient, central facilities utilizing low-carbon fuel sources. First Hill presents a strong near-term opportunity for expanding district energy. The RFQ supported by this Resolution will allow the City to engage a private district energy provider in additional feasibility analysis of the opportunity with existing resources. If the outcome is positive, the City will have the option to negotiate long-term service on First Hill with the selected entity. Appropriations to enter into such a service arrangement would be subject to future legislation or budget proposals.

Please check one of the following:

This legislation does not have any financial implications.

This legislation has financial implications.

Spending/Cash Flow:

Spending/Cash Flow Notes:

The City intends to enter into a Memorandum of Understanding (MOU) with the selected RFQ respondent, which is likely to contain a provision for the City to reimburse a percentage of the respondent's costs if, at the end of the analysis period, the City decides not to move forward on





City of Seattle
Office of the Mayor

January 10, 2012

Honorable Sally J. Clark
President
Seattle City Council
City Hall, 2nd Floor

Dear Council President Clark:

I am transmitting the attached proposed Council Resolution to support the Office of Sustainability and Environment's (OSE's) issuance of a Request for Qualifications (RFQ) for a district energy provider to explore district energy opportunities on First Hill. The successful respondent to the RFQ will undertake a feasibility analysis of district energy opportunities in coordination with Seattle Housing Authority, First Hill hospitals, and Seattle Steam. The outcome of the feasibility analysis will inform the City and the above-listed stakeholders as they decide if and how to move forward with First Hill district energy planning. If at that time the City is interested in establishing a long-term relationship with a district energy provider, the analysis will also inform negotiations between all parties.

District energy systems can help achieve greenhouse gas reductions while promoting energy security and local economic development. In July 2011, the Office of Sustainability and Environment (OSE) presented the results of two reports which identified very promising opportunities for expanding district energy on First Hill, and recommended the City engage a private district energy provider to explore opportunities. The attached RFQ initiates this process.

Thank you for your consideration of this legislation. Should you have questions, please contact Jill Simmons at 684-9261.

Sincerely,

Michael McGinn
Mayor of Seattle

cc: Honorable Members of the Seattle City Council

Michael McGinn, Mayor
Office of the Mayor
600 Fourth Avenue, 7th Floor
PO Box 94749
Seattle, WA 98124-4749

Tel (206) 684-4000
Fax (206) 684-5360
TDD (206) 615-0476
mike.mcgin@seattle.gov



definitive/implementation agreements. The size of the reimbursement will be determined through the MOU negotiations, and is anticipated to be paid for within existing spending authority.

Other Implications:

- a) **Does the legislation have indirect financial implications, or long-term implications?**
The results of the district energy feasibility study will identify potential future scenarios for City participation, including potential financial impacts.

- b) **What is the financial cost of not implementing the legislation?**
None.

- c) **Does this legislation affect any departments besides the originating department?**
No.

- d) **What are the possible alternatives to the legislation that could achieve the same or similar objectives?**
There are no alternatives to this legislation.

- e) **Is a public hearing required for this legislation?**
No.

- f) **Is publication of notice with *The Daily Journal of Commerce* and/or *The Seattle Times* required for this legislation?**
No.

- g) **Does this legislation affect a piece of property?**
No.

- h) **Other Issues:**
None.

List attachments to the fiscal note below:

RESOLUTION 31354

1 A RESOLUTION establishing the City's intent to seek a private sector partner to assist it in
2 exploring possible models for expanding, upgrading, and/or developing district energy
3 systems in certain areas of Seattle.

4 WHEREAS, the City has an interest in reducing greenhouse gas emissions within the city,
5 expressed in Resolution 31312 and elsewhere; and

6 WHEREAS, district energy holds the potential to reduce such emissions by providing heating
7 and sometimes cooling to buildings from a centralized, efficient, clean, and low-carbon
8 source; and

9 WHEREAS, a study commissioned by the Office of Sustainability and Environment (OSE)
10 evaluated a number of areas in the city where district energy may be feasible and
11 desirable, and identified First Hill, including Yesler Terrace, as a potential early
12 implementation opportunity; and

13 WHEREAS, OSE's research suggests that it would be prudent for the City to seek a private-
14 sector partner with expertise in expanding, upgrading, developing and operating district
15 energy systems to assist it in exploring the most appropriate model to pursue; and

16 WHEREAS, the City adopted Resolution 31329 supporting OSE's proposal in principal but
17 requesting additional analysis of alternatives and options before seeking such a partner;
18 and

19 WHEREAS, OSE has addressed the questions and issues raised by Resolution 31329 to the
20 City's satisfaction; NOW, THEREFORE,

21 **BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE**
22 **MAYOR CONCURRING, THAT:**

23 Section 1. The City of Seattle intends, through the Request For Qualifications substantially as
24 attached as Exhibit A, led by the Office of Sustainability and Environment and in coordination
25 with key First Hill stakeholders, to solicit a private-sector partner to assist it in exploring options
26 for upgrading, expanding, and operating a district energy system on First Hill, including
27
28

1 exploration of options for providing service to Yesler Terrace and continued service to First Hill
2 hospitals.

3 Section 2. The City through the Office of Sustainability and Environment will engage this
4 private-sector partner through the following process, anticipated to span 2012:

- 5 a) Solicit and select a partner through a Request for Qualifications process; and
- 6 b) Establish a Memorandum of Agreement (MOU) with the selected partner to conduct
7 due diligence on the opportunity; and
- 8 c) Coordinate with the partner to conduct due diligence on the opportunity, including a
9 feasibility assessment of district energy opportunities and potentially negotiate for the
10 successful development of the opportunities identified in the feasibility assessment;
11 and
- 12 d) Following the identification of a viable proposal for expanded district energy service
13 on First Hill and at the mutual agreement of both parties, develop implementation
14 agreements, which at minimum will include a franchise agreement, to move forward
15 with implementation of district energy service on First Hill. The City Council will
16 approve any such implementation agreements to which the City is a party, and the
17 City maintains the ability to select any course of future action until the
18 implementation agreements are signed.

19 Section 3. The City Council will, by Resolution, establish a set of principles and parameters to
20 be reflected in the MOU that OSE negotiates with the private district energy partner to guide the
21 due diligence and negotiations referenced in Section 2(c) of this Resolution.

22 Adopted by the City Council the ____ day of _____, 2012, and
23 signed by me in open session in authentication of its adoption this _____ day
24 of _____, 2012.

25 _____
26

THIS VERSION IS NOT ADOPTED

1 President _____ of the City Council
2

3 THE MAYOR CONCURRING:
4

5 _____
6 Michael McGinn, Mayor
7

8 Filed by me this ____ day of _____, 2012.
9

10 _____
11 Monica Martinez Simmons, City Clerk
12

13 (Seal)
14
15

16 Attachment A: Request for Qualifications – First Hill District Energy Strategic Partnership
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RESOLUTION _____

A RESOLUTION establishing the City's intent to seek a private sector partner to assist it in exploring possible models for expanding, upgrading, and/or developing district energy systems in certain areas of Seattle.

WHEREAS, the City has an interest in reducing greenhouse gas emissions within the city, expressed in Resolution 31312 and elsewhere; and

WHEREAS, district energy holds the potential to reduce such emissions by providing heating and sometimes cooling to buildings from a centralized, efficient, clean, and low-carbon source; and

WHEREAS, a study commissioned by the Office of Sustainability and Environment (OSE) evaluated a number of areas in the city where district energy may be feasible and desirable, and identified First Hill, including Yesler Terrace, as a potential early implementation opportunity; and

WHEREAS, OSE's research suggests that it would be prudent for the City to seek a private-sector partner with expertise in expanding, upgrading, developing and operating district energy systems to assist it in exploring the most appropriate model to pursue; and

WHEREAS, the City adopted Resolution 31329 supporting OSE's proposal in principal but requesting additional analysis of alternatives and options before seeking such a partner; and

WHEREAS, OSE has addressed the questions and issues raised by Resolution 31329 to the City's satisfaction; NOW, THEREFORE,

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE
MAYOR CONCURRING, THAT:**

Section 1. The City of Seattle intends, through the Request For Qualifications attached as Attachment A, led by the Office of Sustainability and Environment and in coordination with key First Hill stakeholders, to solicit a private-sector partner to assist it in exploring options for upgrading, expanding, and operating a district energy system on First Hill, including exploration of options for providing service to Yesler Terrace and continued service to First Hill hospitals.

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REQUEST FOR QUALIFICATIONS

Project Title: First Hill District Energy Strategic Partnership

Procurement Schedule

Table 1: Procurement Schedule

Schedule of Events	Date	Location
RFQ Release	2/10/12	
Optional Pre-Submission Conference	2/27/12 2:30-4:30 pm	Seattle Municipal Tower Room 4050
Deadline for Questions	2/28/12	
Optional Notice of Intent to Respond	2/28/12	christie.baumel@seattle.gov
Sealed Submissions Due to the City	3/16/12 12:00 pm	See Table 2: Delivery Address
RFQ Interviews	4/2/12 – 4/13/12	
Announcement of Successful Respondent(s)	4/18/12	
MOU Execution	5/9/12	

*The City reserves the right to modify this schedule at the City's discretion.
 Notification of changes will be posted on the City website or as otherwise stated herein.*

Procurement Contact

Project Manager: Christie Baumel, christie.baumel@seattle.gov, 206.233.7173

Table 2: Delivery Address

Fed Ex & Hand Delivery - Physical Address	US Post Office - Mailing Address
Office of Sustainability & Environment Suite 2748 700 Fifth Avenue Seattle, Washington, 98104	Office of Sustainability & Environment Seattle Municipal Tower P.O. Box 94729 Seattle, Washington, 98124-4729

It is important to use the correct address for the delivery method you chose.

Unless authorized by the Project Manager, no other City official or employee may speak for the City with respect to this solicitation. Any Respondent seeking information, clarification, or interpretations from any

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other City official or City employee is advised that such material is used at the Respondent's own risk. The City will not be bound by any such information, clarification, or interpretation. Following the submission deadline, Respondents shall continue to direct communications to only the City Project Manager. The Project Manager will send out information to responding companies as decisions are finalized.

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I. Introduction

Long a center of green technology and innovation, the City of Seattle (“City”) has adopted progressive policies for urban design, building standards, clean energy and climate change. The City has established aggressive climate protection and energy conservation goals. Most recently, the City began working towards a goal to be carbon neutral by 2050, defined as net zero greenhouse gas (GHG) emissions. To be successful, the City recognizes it will need to develop and implement an aggressive and diversified approach that incorporates both innovation and best practices.

The City recognizes that district energy systems, with their capacity to provide buildings with efficient and affordable clean (low carbon) energy for space heating, domestic hot water and in some cases cooling, have proven a cost-effective way to achieve deep GHG reductions in high density, mixed use neighborhoods. District energy systems also offer a platform for addressing other community issues and priorities including energy security, waste management, and local economic development.

There is significant interest within Seattle for district energy solutions. Seattle already has several existing district energy systems (e.g., Seattle Center, University of Washington, and Seattle Steam) as well as several recent studies and proposals for new district energy systems (e.g., Interbay, Yesler Terrace). Seattle has also missed several recent opportunities for introducing or expanding district energy. One notable example is the South Lake Union area of Seattle, where a 2004 study found that district energy could offer a viable opportunity to reduce both electrical load and GHG emissions.

The City believes the modernization and expansion of existing district energy systems, and the development of new systems, particularly in higher-density developments and neighborhoods of Seattle, has the potential to be an important element of the City’s carbon neutral strategy and to meet other community objectives. At the same time, the challenges faced by existing systems and recent examples of missed opportunities for district energy such as South Lake Union have highlighted a potential need for more proactive City vision, policy and coordination.

In 2011, the City’s Office of Sustainability and the Environment (OSE) engaged Compass Resource Management to evaluate issues, barriers and opportunities for advancing district energy in Seattle. In parallel with the policy analysis, OSE engaged AEI (Seattle) and COWI (Denmark) to screen the district energy potential in ten pre-selected neighborhoods in Seattle.

The AEI/COWI screening study identified four areas as having particularly high (near-term) promise for district energy: First Hill (including Yesler Terrace), Capitol Hill, University of Washington, and South Lake Union (future development). First Hill was identified as one of the most promising areas for expansion of district energy in the City. First Hill has one of the highest current energy densities in the City. More than 40% of Seattle Steam’s existing annual load is located on First Hill, including three large hospitals - Harborview, Swedish and Virginia Mason (“Hospitals”). In addition, significant new development is anticipated on First Hill. By 2030, housing supply is expected to grow by nearly 165% and employment

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by nearly 15%. First Hill is also adjacent to Capitol Hill, which was identified as another promising area for district energy given density, retrofit potential among existing building stock, and anticipated new development.

Seattle Housing Authority ("SHA") is planning a large new redevelopment on First Hill at Yesler Terrace. This development represents a particularly important opportunity for expanding and modernizing district energy on First Hill. Yesler Terrace could add 2 – 5 million square feet of new floor area to First Hill by 2030, the equivalent of up to 50% of the floor area of the existing hospitals on First Hill. SHA has expressed interest in and has studied district energy and water reuse as methods of achieving high levels of environmental performance at Yesler Terrace. However, to date studies of district energy for Yesler Terrace have not examined the possible synergies with nearby hospital loads, other new developments outside Yesler Terrace, or existing district energy infrastructure on First Hill in sufficient detail.

At the same time, the Hospitals have expressed concerns about the level and transparency of their current energy costs, as well as the security of existing district energy infrastructure on First Hill in a major seismic event. Decisions by the hospitals on First Hill could have significant implications for district energy supply elsewhere in the City and also the City's overall GHG reduction goals. Given their size, any changes in demand by the hospitals will affect costs for other customers of Seattle Steam. Based on Seattle Steam's projected emission factor (with biomass) switching from current district energy supplies and relying instead on 100% gas-fired heat in each individual hospital campus could increase their GHG emissions on First Hill by as much as 12,000 metric tons per year.

By all accounts, First Hill is a strategically important neighborhood for district energy within Seattle. The City sees a need to facilitate a serious exploration of synergies and opportunities among all of the key district stakeholders on First Hill (in particular the hospitals, Seattle Steam, SHA) to determine if there is a collective, long-term district energy strategy to meet various customer and supplier interests. The City also sees an opportunity to test more proactive City policies and legal agreements on First Hill to facilitate district energy solutions that will meet customer objectives and also broader community objectives.

Through this Request for Qualifications ("RFQ"), the City is seeking responses from providers of thermal energy services ("Respondents") describing their qualifications for studying and implementing district energy services throughout First Hill. The City is only seeking responses from teams that can demonstrate they have the desire, capacity and experience to build, own, finance and operate district energy infrastructure, not merely study and design systems.

The focus of this Solicitation is to identify Respondents capable of:

- (i) Collaborating with all stakeholders to identify and study the feasibility of options for various district energy solutions on First Hill;

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- (ii) Negotiating long-term service agreements with district energy customers, and supply or infrastructure use agreements with existing infrastructure owners;
- (iii) Developing, owning and/or operating new or upgraded district energy infrastructure and supplies on First Hill, as required; and
- (iv) Collaborating with the City to ensure commercial viability of district energy and maximize community benefits from any district energy infrastructure on First Hill.

While the focus of this RFQ is to address strategic opportunities on First Hill, the City notes it will be considering similar opportunities in other neighborhoods within Seattle, including nearby Capitol Hill. Pending appropriate consultation, the City may also consider expanding the scope of any model / agreements with a successful Respondent on First Hill to other neighborhoods within the City, subject to mutual agreement.

Those interested in submitting a response to this Solicitation should address the requirements outlined in Section VI of this Solicitation. Responses must comply with all submission requirements set forth in this RFQ and must be received **no later than Friday, March 16, 2012**, at the address on Page 1 of this solicitation.

Based on a review of the responses, one Respondent may be selected to enter into a Memorandum of Understanding ("MOU") with the City to conduct due diligence on the opportunity, including a feasibility assessment of district energy opportunities (the "Feasibility Assessment") and, subject to the outcome of such analysis, negotiate definitive agreements, including service agreements between the selected Respondent and initial customers and any other agreements necessary for the successful development of opportunities confirmed in the Feasibility Assessment. The remaining sections of this Solicitation provides additional background on the issues and opportunities on First Hill, the City and stakeholder objectives, possible form of the strategic partnership, expected process, and submission requirements.

II. Background

a) City Policy

The City of Seattle has adopted progressive policies for urban design, building standards, clean energy and climate change. In particular, the City has established aggressive climate protection and energy conservation goals. More recently, the City is working towards a goal to be carbon neutral by 2050, defined as net zero greenhouse gas (GHG) emissions. To be successful, the City will need to develop and implement an aggressive and diversified approach that incorporates both innovation and best practices. The City will also need to consider carefully the full costs and benefits of different combinations of approaches for achieving this goal.

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Seattle's GHG emissions are produced from three main sources: transportation, buildings, and industry. At 62%, the transportation sector is the largest source of current GHG emissions. Energy use (heating, cooling, DHW, and plug loads) in Seattle's residential and commercial buildings is the second largest source (21%) of the City's current GHG emissions. Space heating and domestic hot water, in turn, make up a large portion of building energy use and the bulk of their GHG emissions. Industrial operations and processes make up the remaining 17% of total GHG emissions in the City.¹

Increased efficiency in existing and new construction can lower building emissions, but achieving net zero GHG emissions in the building sector will ultimately require greater reliance on low-carbon sources of energy, whether new sources of GHG neutral electricity or other forms of low-GHG energy. In the case of heating, which accounts for a large share of building GHG emissions, there are a variety of potential low-carbon energy sources including both additional investments in green electricity as well as other forms of renewable or waste heat. To date, much of the City's policy has focused on building-scale options. However, there are many low-carbon heating sources that are not technically or economically viable at a building scale. Good examples include co-generation, biofuel-based heat sources, and large-scale heat pump applications such as sewer heat recovery. There are also many sources of waste heat from industrial or other processes in Seattle that could be captured, stored, and used to supply buildings. These opportunities require district-scale thermal energy systems.

OSE recently commissioned a study to develop a proof-of-concept scenario of how the city might be able to achieve carbon neutrality. The study considered technically feasible options for getting to carbon neutrality, without considering political or economic constraints. In the buildings sector, the study indicated that at least 50% of multifamily and commercial buildings would need to be served by on-site heat pumps and/or low-carbon district energy systems by 2050 in order to realize deep carbon reductions in this sector. These strategies are not mutually exclusive and each may be appropriate in different neighborhoods. A fuller assessment of the relative costs and benefits of different strategies in different contexts will be required. The City is using this study as a resource for updating its climate action plan.

The City recognizes that district energy systems, with their capacity to provide buildings with efficient and affordable clean (low carbon) energy for space heating, domestic hot water and potentially cooling, have proven to be an effective way to reducing GHG emissions in the right circumstances. The City believes the expansion and development of district energy systems in some developments and neighborhoods of Seattle has the potential to be an important element of the City's carbon neutral

¹ Seattle City Light currently relies mostly on GHG neutral electricity sources and purchases offsets for any residual GHG emissions. However, for evaluating conservation and alternative resources, the City uses a short-run marginal GHG emission factor for electricity of 600 kg/MWh to reflect the higher carbon intensity of the regional electricity portfolio and the fact that any freed existing renewable resources would likely reduce reliance on fossil-fuel fired resources at the margin in the regional market. In the long run, the City expects all new electricity supplies acquired by Seattle City Light will be from carbon neutral sources, but likely at a higher (new build) cost than the existing resources reflected in retail rates.

strategy. Furthermore, the City recognizes that it must take a more proactive role going forward to realize the benefits of clean district energy systems for Seattle.

Stakeholders on First Hill have expressed support for a new type of district energy partnership to achieve a long-term, collective district energy vision that balances financial, environmental and social objectives. The City considers it has an important role to play in developing and implementing this partnership. In particular, City involvement may be required to:

- Coordinate interests / perspectives among different stakeholders;
- Support a common district energy vision / plan for First Hill;
- Ensure community objectives for GHG and other outcomes are met at the lowest possible cost and without creating other unintended consequences;
- Support modernization and expansion of district energy;
- Increase transparency / credibility of district energy services;
- Create appropriate regulatory structure; and
- Negotiate and monitor energy district franchise agreements

At the same time, the City has not expressed a desire to own and operate district energy systems. The City is interested in other delivery models that will meet public interest objectives without direct ownership or operation of district energy systems by the City, whether in the form of policy, legal agreements or some sort of strategic partnership.

The City has established an Interdepartmental Team (IDT) to support the review and development of policies to support district energy, to review and advance other opportunities for district energy in the City, and to oversee the exploration of options for a district energy partnership on First Hill. Reporting to the Mayor and Council, the IDT is led by OSE and composed of representatives from the City Budget Office, Department of Planning and Development, Seattle City Light, Seattle Department of Transportation, Seattle Public Utilities, and City Council Central Staff.

b) First Hill Neighborhood Overview

The First Hill neighborhood encompasses approximately 251 acres east of I-5 and downtown Seattle (Figure 1). The current building density of First Hill is approximately 53,600 sf / acre. Total existing heating and cooling loads on First Hill are approximately 620,000 MMBtu/year and 1,700,000 ton*hours/year, respectively.²

² From City of Seattle – District Energy Pre-Feasibility Study prepared by AEI / COWI. The cooling load may be underestimated based on the hospital demands.



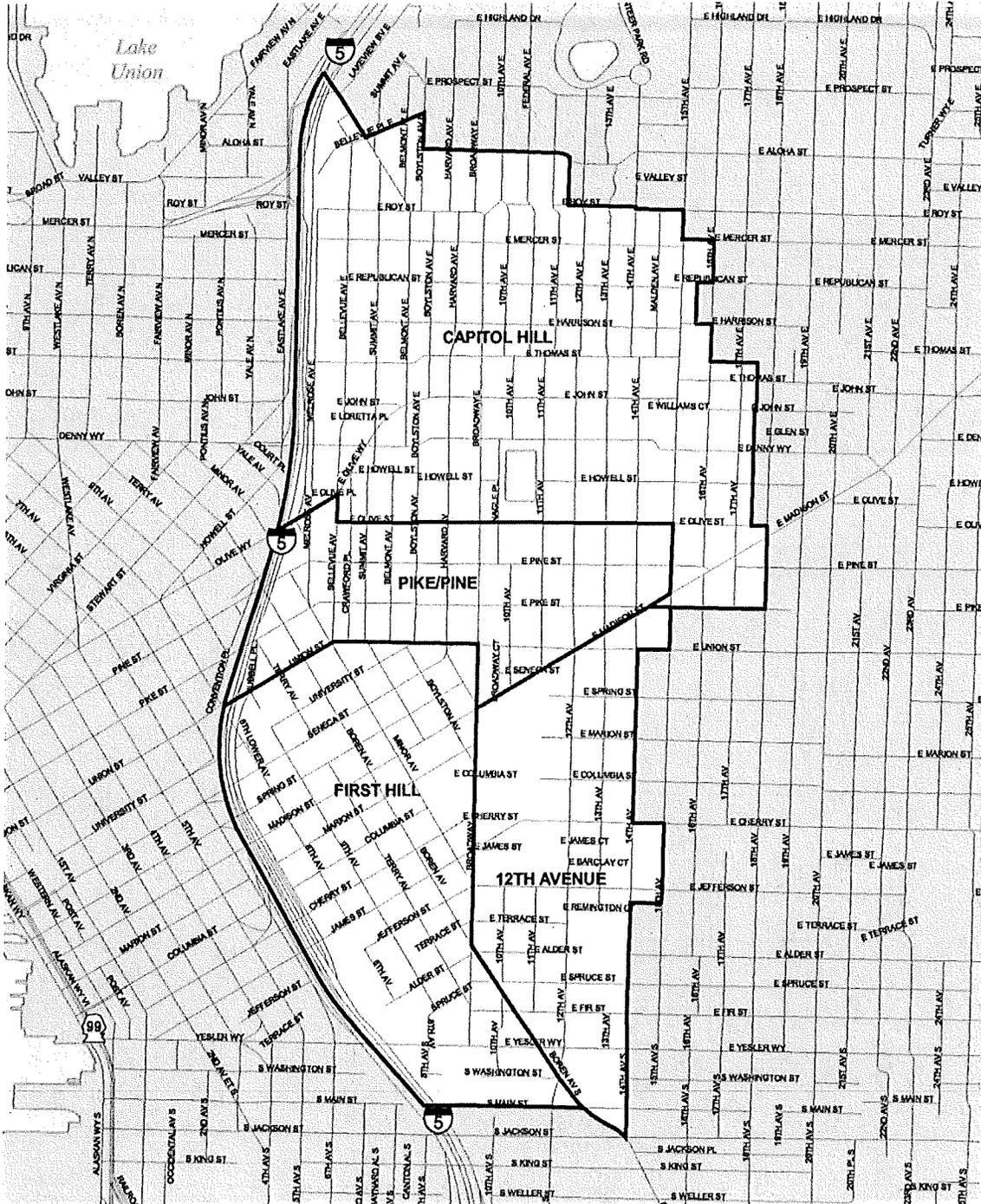
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The majority of the neighborhood consists of multi-story hospitals, research and medical office buildings along with multi-story apartment and condo buildings. The majority of the existing building stock was constructed in the mid-thirties to mid-fifties and is in fair to good condition. In addition to Hospitals, Seattle University (which has an existing hot water district heating network) is adjacent to First Hill along with a large church complex, a high school and a museum. There are also several SHA complexes, including, low- and medium-rise buildings within the neighborhood.

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Figure 1: Map of First Hill Neighborhood Boundaries*



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* Boundaries of First Hill neighborhood are based on Village Boundaries in Seattle's Comprehensive Plan. Exact project boundaries to be determined through the due diligence process.



By 2030, the density on First Hill is expected to reach 83,800 sf/acre. All three hospitals expect some expansion of facilities to 2030. Yesler Terrace, a housing sub-division owned by SHA and located on the southern portion of the district, is slated for major redevelopment over the next twenty years. The existing Yesler Terrace buildings will be replaced in phases, beginning in ~2014, with either steel- or wood-framed multi-unit dwellings between now and 2030 (rate of development will depend upon market conditions). In addition to Yesler Terrace and expansion of existing hospital facilities, additional retail/commercial development is expected adjacent to the Light Rail Station between Capitol Hill and First Hill. Multiple smaller parcels are also expected to be redeveloped throughout First Hill.

c) Seattle Steam

First Hill is served by high pressure steam from Seattle Steam (Figure 2).³ All of the Hospitals are connected to Seattle Steam. The Hospitals utilize steam for virtually all of their heating loads, including sterilization. In older buildings, steam coils are still present. In newer construction, central steam to hot water converters are used, with hot water distribution through the building. Sterilization accounts for up to 1/3 of the Hospitals' total current steam load. Further details on the Hospital Loads is provided below.

Seattle Steam is a private utility that currently supplies steam to nearly 200 buildings in downtown Seattle and on First Hill. With a combined peak demand of ~125 MW, Seattle Steam supplies about 7% of the thermal energy currently consumed in the City. Seattle Steam also generates about \$3 million in annual revenues for the City via various taxes and permit fees. In 2004, Seattle Steam renewed its 50-year non-exclusive franchise agreement with the City. The City Ordinance grants Seattle Steam permission to install, maintain and operate pipes in the rights-of-way within a defined geographic portion of the City (see Figure 3), and to sell, deliver and charge for thermal energy, including steam, condensate, hot water, and chilled water used for space heating and cooling, domestic hot water, humidification, and process loads.

Founded in 1893, Seattle Steam was instrumental to the rebuilding of Seattle after the Great Seattle Fire in 1889, and was also instrumental to the early development of the electric power infrastructure in Seattle through its early reliance on the production of combined heat and power. Seattle Steam has recently undertaken several initiatives to expand and upgrade its existing system including ongoing efficiency improvements in its generation and distribution systems, programs to support efficiency upgrades among its customers, and installation of a biomass plant to displace a large portion of its natural gas use. Other ongoing initiatives to upgrade its system include plans to install a combined heat and power system, to tap groundwater at the main plant, and to begin the long-term process of introducing hot water distribution systems at the periphery of the current steam network.

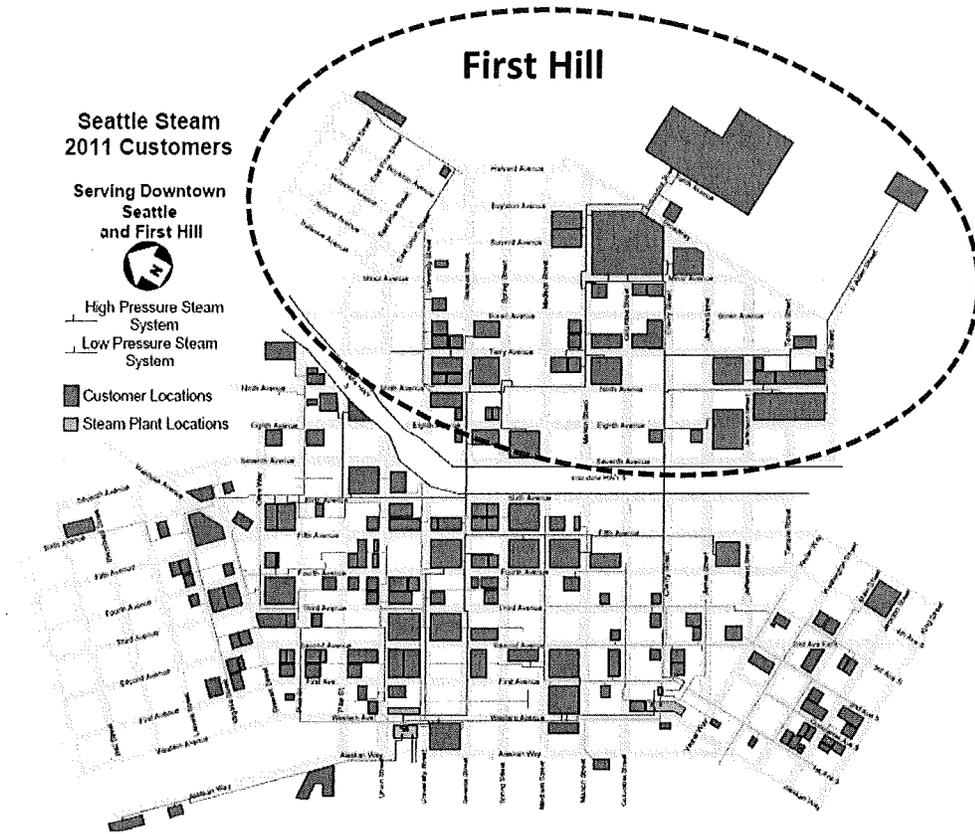
³ There are no major centralized chilled water systems on First Hill. There are multiple chiller systems throughout the Hospitals and a centralized chilled water system at Seattle University.

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Seattle Steam's current system consists of two steam plants and approximately 18 miles of high and low pressure steam pipelines. One steam plant is located on Western Avenue at Union Street, just west of the Pike Place Market. The other is located on Post Avenue at Yesler Way in Pioneer Square. Going forward, about 60% of Seattle Steam's energy output is expected to come from the new biomass (waste wood) plant added to its Western Avenue plant. Historical and projected GHG emission factors for Seattle Steam provided below (Table).

Figure 2: Existing Seattle Steam System



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Figure 3: Seattle Steam (non-exclusive) District Energy Franchise Area



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Table 3: Seattle Steam GHG Emission Factors

	Supply Mix Scenario	
	All Gas Plant (Prior to Biomass Conversion)	After Biomass Conversion**
Seattle Steam Natural Gas	100%	40%
Seattle Steam Biomass	0%	60%
Produced Steam Emission Factor (kg / MWh)	210	84
Delivered Energy Emission Factor (kg / MWh)*	254	102

* Delivered emission factor reflects estimated production and distribution system losses. Emission factor for on-site gas-fired heat at 80% average efficiency = 225 kg/MWh

** Reflects emission factor after expected contribution of Seattle Steam's new 25MW biomass boiler plant.

d) Hospitals

The Hospitals currently contain approximately 5.5 million square feet of floor space, including health care facilities as well as research, office and administration facilities. There will also be some renewal of existing floor space at the Hospitals. Swedish has the largest total floor area (2.5 million square feet), but 1 million square feet is ancillary to the core health care facilities. Harborview has the largest core health care floor area. The Hospitals constitute large, high quality base loads for any district energy system as most of their facilities operate 24/7 365 days per year. All three hospitals have additional capacity to grow.

The Hospitals provide essential regional services and must be able to continue operating in a major seismic event or other emergency. Harborview is the only Level I adult and pediatric trauma center in Washington, Alaska, Montana and Idaho. Given this, the Hospitals place significant importance on the reliability of their energy supply in a major seismic event. At present, Seattle Steam has backup diesel storage, provisions for emergency water, as well as redundant distribution paths to provide steam. Seattle Steam has also conducted an engineering analysis of steam pipe survival probability in the event of a major seismic event (report provided). The Hospitals expect any long-term solution for First Hill will resolve any outstanding concerns about energy reliability in a seismic event.

Most existing Hospital buildings have direct connection to Seattle Steam and are metered individually. There are no internal campus steam distribution systems within the Hospitals. Many older buildings still have steam end use devices and would require significant retrofits to connect to a hot water system, if that was contemplated. Newer buildings could be connected to hot water systems for space heating.

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However, all three hospitals expect to continue to require steam for sterilization, which accounts for up to 1/3 of their total current steam load. Harborview and Swedish have both considered distributed steam plants for existing buildings and hot water plants for new construction to manage energy costs and address reliability concerns. The hospitals rely on distributed chiller plants, with some partial centralization for several buildings.

Historical steam consumption for the three hospitals is summarized below (Table). Steam consumption varies with annual weather conditions. There have also been some changes in floor area at the Hospitals which accounts for part of the historical variances. The forecast consumption reflects anticipated consumptions under the 20-year average of weather conditions in Seattle. The Hospitals consume an estimated 126,600 MWh of steam annually (including ancillary space) under average weather conditions, with an estimated combined peak demand of 45 MW (based on an estimated Equivalent Full Load Duration of 2,800 hours). There may be opportunities for efficiency upgrades at all three hospitals to improve energy recovery from condensate, thereby reducing steam consumption.

Virginia Mason recently signed a new long-term contract with Seattle Steam. Swedish has about 10 years remaining on its current service agreement with Seattle Steam. Harborview's service agreement is up in 2013. Harborview is currently exploring options for an energy system serving its own campus from a facility in the proposed Harborview Hall preservation. Bidders in that process have been encouraged to consider possible synergies with this RFQ process. At a minimum, it is expected the study of an energy system for Harborview will provide a useful benchmark for comparison with any collective strategies on First Hill.

Table 4: Historical Hospital Steam Consumption

	Heating Degree Days	Harborview* (MWh)	Swedish (MWh)	Virginia Mason (MWh)
Current (Average Weather)	3,084 (20yr Average)	59,200	46,839	20,640
2010	2,797	53,899	44,617	18,535
2009	3,422	58,367	49,051	18,333
2008	3,528	53,723	49,063	17,833
2007	3,310	46,162	47,002	17,332

* Includes new building at Ninth and Jefferson adding in 2007. Prior to March 2011, consumption for this building was underestimated because of an undersized steam meter. Current consumption reflects

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updated forecast based on corrected consumption estimates for Ninth and Jefferson, adjusted for average weather..

e) Yesler Terrace

SHA, established in 1939, is a public corporation governed by a seven-member Board of Commissioners. The agency owns and operates buildings on more than 400 sites throughout the city, and provides long term rental housing and rental assistance to more than 26,000 people. Since 1995 SHA has completed major public housing redevelopments of the New Holly, Rainier Vista, and High Point developments into mixed-income, mixed-tenure communities that have transformed these areas into new neighborhoods within the City of Seattle, encompassing nearly 300 acres and creating approximately 4,300 new units of housing, as well as new infrastructure, parks and community facilities. SHA financed these redevelopments through consolidation of its public housing program onto a smaller footprint within the existing sites and then selling the remaining parcels to developers in order to provide the necessary infrastructure and site improvements that federal funding sources did not cover. The redevelopment plans at New Holly, Rainier Vista and High Point incorporated green design features. At the most recently completed High Point project, SHA implemented an aggressive and highly successful green building and low impact development program in partnership with the Built Green program and Seattle Public Utilities.

SHA is proposing redevelopment of Yesler Terrace, a public housing community located on the southern slope of First Hill in Seattle. The 36-acre (including rights-of-way) Yesler Terrace Redevelopment site currently contains 561 public housing units, a community center and various other office spaces that primarily provide social services or serve as the administration offices for service providers. Redevelopment is proposed in order to create a mixed-income, mixed use community that is intended to better serve existing and future residents. The new community could comprise as much as 3.9 million sf of residential uses, 900,000 sf of office uses and 150,000 sf of commercial and other uses. Redevelopment will occur in phases between 2014 and 2030. Development will likely commence with housing components in 2014. The rate of development of market housing will depend upon broader economic conditions. Similar to the previous redevelopments, SHA plans on consolidating the public housing footprint and sell the remaining land to developers in order to finance replacement of the existing public housing and associated infrastructure. While SHA will retain ownership of some buildings on the existing site once the project reaches completion, the majority of the structures will be held by separate entities. SHA plans on selecting a master-development partner in the coming months to facilitate infrastructure improvements and site preparation.

At the initiation of the planning effort, SHA convened a Citizen Review Committee who developed a set of Guiding Principles for the redevelopment. The Environmental Stewardship and Sustainability principles encouraged sustainable design for a positive and healthy community for current and future generations.

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The redevelopment will involve installing and in some cases replacing infrastructure systems. With the support of the City, SHA intends on pursuing economically feasible sustainable design features that are anticipated to exceed code compliance. To that end, SHA has conducted a Sustainable District Study (<http://www.seattlehousing.org/redevelopment/yesler-terrace/archive/index.html#sustainablestudy>) to assess the feasibility of various infrastructure options, including district energy. In a preliminary feasibility assessment, two options were considered, a GeoExchange/Solar system and Combined Heat and Power. To date primarily stand-alone district energy options within Yesler Terrace have been studied, although possible interactions and synergies with existing loads and district energy infrastructure on First Hill have been recognized. In addition to district energy, SHA is also considering third party delivery models for other district infrastructure involving water reuse.

SHA contemplated issuing an RFQ for a district energy service provider to complete the feasibility assessment and deliver the selected system. Given the possible synergies with other loads and infrastructure on First Hill, and the City's broader interests in district energy infrastructure, SHA has deferred issuing an RFQ for Yesler Terrace. The City is interested in Respondents that would contemplate a stand-alone system for Yesler Terrace in the event there are no synergies identified with other loads and infrastructure or agreements cannot be reached with other major customers on First Hill, and there is still a business case for a stand-alone system at Yesler Terrace. Preference may also be given to Respondents that are capable of considering possible synergies with onsite total water treatment/reuse strategies, and that may have abilities and interests in delivering other district infrastructure in Yesler Terrace.

In order to facilitate redevelopment, the City of Seattle is working on legislation necessary to allow the proposed master plan to move forward. The legislative package will include Land Use Code amendments creating a new zone (Master Planned Community – Yesler Terrace) and applying this zone to SHA property; a planned action ordinance; street vacation/rededication; a reconfiguration of the Yesler Community Center's property line; and a cooperative agreement between the City and SHA. To allow flexibility over the course of a 15-20 year phased development, the proposed legislation incorporates several new planning tools, including a planned action ordinance to address environmental impacts of new development and development standards that encourage shared parking, landscape amenities, and open space. It is anticipated that proposed legislation will be transmitted to the Seattle City Council in the first quarter of 2012.

f) Summary of Core Loads of Interest for District Energy on First Hill

The table below summarizes the current and anticipated floor space and energy use of core loads to be considered in any Feasibility Assessment. The Hospitals expect to expand their floor area in the next decades but have no specific plans or timing at the moment. In addition, the table also summarizes current annual energy costs and GHG emissions (under several scenarios) for the Hospital loads. There are other smaller existing steam or natural gas loads on First Hill, as well as other potential in-fill

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developments, that should be considered in the evaluation of district energy solutions for First Hill. It is expected the Feasibility Assessment will consider several scenarios for loads and additional development on First Hill, including options for a stand-alone system at Yesler Terrace in the event there are no synergies or benefits (or agreements) for including the Hospitals and/or existing district energy infrastructure on First Hill.⁴

Table 5: Existing Hospital Loads and Projected Yesler Terrace Loads

	Harborview*	Swedish	Virginia Mason	Yesler Terrace	Total
Floor Area (millions sf)					
Core	2	1.5	1		4.5
Ancillary		1			1
Total (to 2025)	2	2.5	1	2 - 4.8	7.5 - 10.3
Current Steam Consumption (MWh)	59,000	47,000	21,000		126,600
Hospital Energy Intensity (kwh/sf/year)	29	19	21	35,000	35,000
Estimated Yesler Terrace Thermal End Use Load (MWh)					
Estimated Non-Diversified Peak (MW)*	22	17	8	20	67
Current Cost (millions)	\$4	\$3.2	\$1.4		
Current Cost (\$/MWh)**	~68	~68	~68		
GHG Emissions (metric tons/yr)					
On-site Gas (hypothetical)	13,300	10,500	4,600		
Seattle Steam (Gas Only)***	17,700	14,100	6,200		
Seattle Steam (Incl. Biomass)***	7,100	5,600	2,500		

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* Metered peak consumption not available. Peak demand is estimated based on estimated equivalent full load duration of 2700 hours for the hospitals and 1700 hours for mixed use development.

** Based on projected 2012 rates and consumption under average weather conditions. As a district energy service this reflects the total cost of supplying the energy taking into account fuel consumption, operations and maintenance, and capital recovery (including redundancy and back-up).

⁴ Even if a stand-alone system is contemplated at First Hill, short-term and long-term energy supply could be provided from several sources including sources located within Yesler Terrace, waste heat from surrounding loads such as the hospitals, or Seattle Steam. Seattle Steam has indicated it may have adequate capacity to serve any development at Yesler Terrace.



***Reflects Seattle Steam's estimated delivered GHG emission factors prior to and after commissioning its new 25 MW biomass boiler plant, but before any contribution of combined heat and power which is currently under consideration.

III. Solicitation Objectives

Through this Solicitation, the City wants to explore opportunities to develop and deliver a collective, long-term vision for a flexible, reliable, cost effective and environmentally responsible district energy system on First Hill, leveraging existing loads, existing infrastructure and expected new development. The City would like to explore a collective vision that considers and balances the following objectives:

- Provides reliable thermal energy solutions under normal and emergency conditions (including any potential synergies between heating and power planning for First Hill);
- Provides cost-effective thermal energy services (relative to business as usual) with transparent and predictable/stable pricing;
- Leverages existing infrastructure and minimizes stranded historical or future district energy investments;
- Contributes to the city's long-term GHG reduction goals at lowest possible cost and without unintended consequences;
- Achieves modern, flexible and adaptable energy infrastructure, including current and future district energy systems;
- Promotes local economic development (cost-effective and stable thermal energy prices, use of local technologies, use of local energy resources); and
- Maximizes other community benefits while minimizing other community impacts, including benefits of impacts for other neighborhoods and district energy customers or opportunities in Seattle.

IV. Anticipated Process

The City is acting as a facilitator to explore a collective vision for First Hill that meets stakeholder and City objectives. Through Council Resolution, the City has issued this RFQ to seek a suitable partner to enter into exclusive feasibility assessment and negotiations. This may include provisions for the recovery



of certain costs should the process not result in Definitive Agreements. The form, amount and conditions for cost recovery will be one of the evaluation criteria the City will use in selecting a preferred Respondent.

The City has specified a range of objectives for this process, and it remains open to the final outcome, which will also depend upon consent of other key stakeholders such as the Hospitals, SHA and Seattle Steam. The City is hopeful of a win-win solution that can achieve an appropriate balance across objectives and stakeholders.

The City's ultimate role in the implementation of any solution has not been determined. As noted elsewhere, beyond acting as a convenor and representing the broader public interest in the Feasibility Assessment and negotiations, the City expects at a minimum it will play a role in providing a franchise and supportive policy framework. The exact nature of the policy framework will depend upon the scope and form of proposed solutions and their public benefits. Potential City roles are discussed further below.

The overall process consists of four phases: 1) Selection of Preferred Respondent; 2) Feasibility Assessment; 3) Negotiation; and 4) implementation. In reality, the City expects there will be some overlap and iteration between the Feasibility Assessment and Negotiation phases. The basic process steps are summarized below. Respondents are expected to comment and elaborate upon these as relevant.

1) Selection Phase:

- Issue RFQ [Council Resolution]
- Bidder's meeting and question period.
- Receive and evaluate responses.
- Consultation with stakeholders on responses;
- Possible interviews with a short-list of candidates
- Select preferred Respondent.
- Negotiate exclusive MOU.

2) Feasibility Assessment / Vision Phase

- Conduct feasibility / vision development.
- Select preferred long-term vision(s) and near-term actions.

3) Negotiation Phase

- Negotiate definitive agreements, as required.

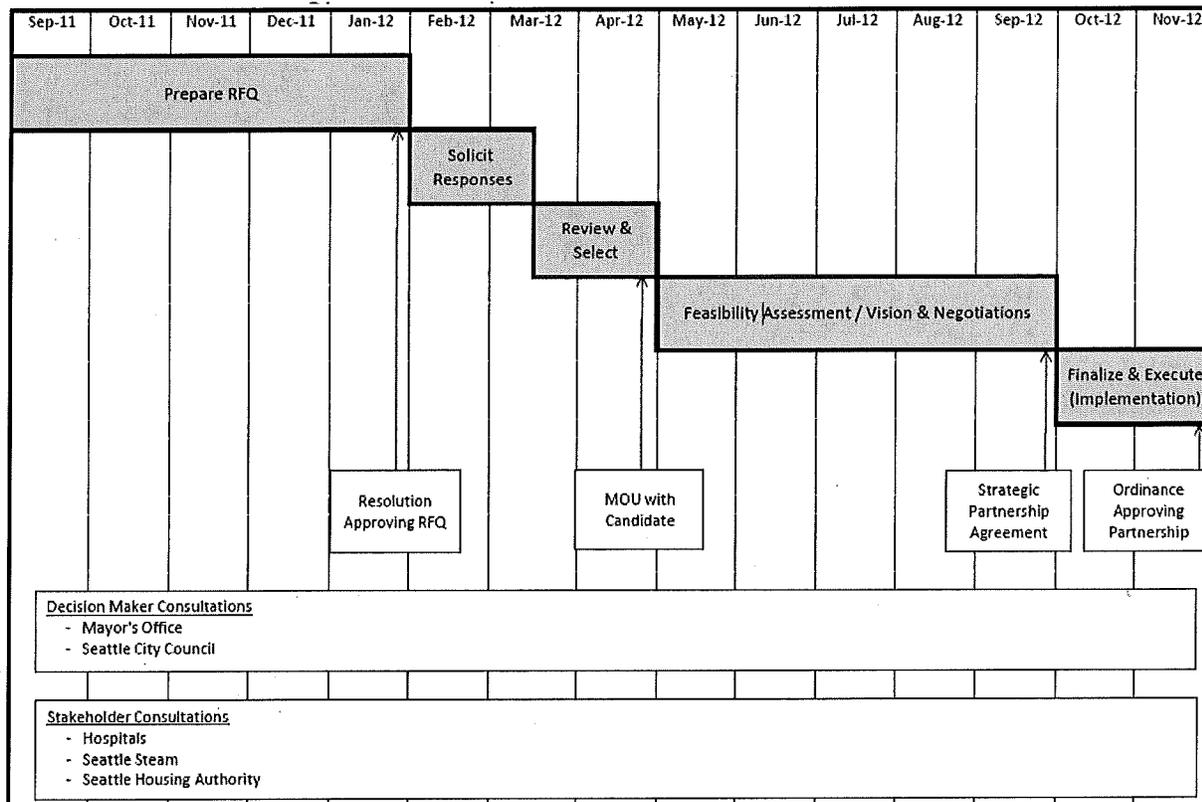
4) Implementation Phase

- Implementation of vision.

THIS VERSION IS NOT ADOPTED



Tentative Timeline for First Hill DE Partnership Development



V. District Energy Feasibility / Anticipated Scope of Work

The first task for the successful Respondent will be to work with all stakeholders to identify and evaluate collective, long-term district energy solutions for First Hill. It is expected the Feasibility Assessment will consider several scenarios for loads and energy supply development. Some specific considerations in the scenario development and evaluation will include the following:

- Existing thermal loads at the Hospitals, other potential existing loads on First Hill that could be connected to district energy, and anticipated new loads at Yesler Terrace and elsewhere in First Hill;
- Existing district energy infrastructure on First Hill, including cost, condition, reliability, and environmental performance;
- Plans and opportunities for increasing the efficiency of existing loads, including waste heat recovery;

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- Opportunities to introduce modern hot water distribution systems on First Hill, recognizing the existing and ongoing requirements for steam at the Hospitals and also other ways of meeting those steam requirements;
- Synergies among different load types on First Hill;
- Synergies between heating and cooling requirements, as relevant;
- Impact on peak / annual electrical loads and electricity system costs;
- Other sources of supplemental or long-term thermal energy supplies on First Hill, including high-grade and low-grade thermal energy supplies such as bioenergy, sewer heat recovery, combined heat and power, and solar thermal.
- Ways to measure and evaluate the reliability of thermal energy supply options to hospital loads on First Hill under emergency conditions (e.g., major seismic event) and cost-effective opportunities to improve those measures;
- Collective solutions for all of First Hill vs. stand-alone strategies for Yesler Terrace and/or the Hospitals;
- Interim, transitional and supplemental strategies to leverage existing infrastructure and achieve long-term vision;
- Impacts of various strategies on long-term GHG, long-term customer costs (relative to Business as Usual and new stand-alone strategies), reliability, flexibility and local economic development; and
- Explore financing and policy tools the City may be able to utilize to facilitate or promote a cost-effective and sustainable district energy solution for First Hill.

The City recognizes that any district energy solution for First Hill will need to be open ended and adaptive given the long life of district energy infrastructure, uncertain and open-ended nature of neighborhood development and renewal, and evolving energy markets and technologies. The vision is expected to provide a long-term view of possibilities for First Hill and immediate actions and investments that will support that long-term view while minimizing the possibility of stranded assets and protecting ability to adapt and evolve the vision as development and investment proceed.

The City expects the successful Respondent to this RFQ will cover its own internal costs for all feasibility assessment and negotiations based on the magnitude of the potential opportunities and an exclusive MOU. The City and other stakeholders are expected to contribute through the provision of data, review of analysis, and their own in-house costs of negotiations, as relevant. The successful Respondent may

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rely on third parties for aspects of Feasibility Assessment. The City expects the Respondent will fund third party costs but may include provisions for some cost recovery from the City in the event the process does not reach Definitive Agreements as part of the exclusive MOU. Respondent s should indicate clearly in their submissions their plans for the Feasibility Assessment and their expectations with respect to funding and/or cost recovery, including any cap on costs or conditions for recovery.

VI. Potential City Roles in Vision Development and Implementation

The City is acting as a facilitator to explore a collective vision for First Hill that meets stakeholder and community objectives. The City expects the successful respondent will work with all key stakeholders (e.g., the City, Hospitals, Seattle Housing Authority, other potential customers, and Seattle Steam) to explore a collective district energy vision for First Hill. The outcome may be a combined solution for all of First Hill or a subset of stand-alone solutions. It is expected that any solutions will require a series of Definitive Agreements. At a minimum it is expected these would include long-term Retail Service Agreement s with one or more Hospitals and other potential customers, an Infrastructure or Master Service Agreement for Yesler Terrace, a Wholesale Service Agreement with Seattle Steam and a Franchise Agreement with the City.⁵

In addition to a traditional Franchise Agreement governing use of public rights of way, the City is also open to exploring other forms of policy support, agreement or strategic partnership, if necessary, that would support and promote community objectives for district energy on First Hill. At this time, the City is not contemplating any ownership or financing of district energy in First Hill (except possibly applying for and allocating grants from senior levels of government as appropriate), but is exploring other strategies to promote City objectives.

The City has conducted some preliminary assessment of other possible partnership models. One example is a Joint Cooperation Agreement (JCA) similar to those implemented by some communities in the UK. In addition to the normal terms and conditions in a Franchise Agreement, JCAs have included other formal terms and conditions such as access to energy sources and community infrastructure as required (e.g., sewer heat recovery); provisions for direct City oversight of district energy rates and service; agreement provisions for property taxes, franchise fees and use of City land; coordination of infrastructure planning and growth opportunities; joint marketing; other formal governance structures; and other public considerations that may help advance cost-effective, reliable and environmentally

⁵ Although a Master Infrastructure or Service Agreement is contemplated with SHA for Yesler Terrace, it should be noted that individual development parcels will be sold to third party developers and individual service agreements will likely also be required with each development.



responsible district energy solutions on First Hill. It is expected any model would include provisions for future equity participation or acquisition of the retail service provider by the City.

The City also notes it has broad powers to facilitate district energy under existing statutes in Washington, in particular Chapter 35.97 RCW: Heating systems. Enacted in 1983, Chapter 35.97 RCW authorizes a municipality (including counties, cities, towns, port districts and water-sewer districts) "to establish heating systems and supply heating services" through a municipal heating utility through an ordinance or resolution. Once established, there are a variety of ownership structures possible, from full municipal ownership to a public-private partnership to a full contracting out model. Further analysis will be required by the City to determine whether this statute is necessary or useful to assist in the creation of the proposed partnership. The City has made no decisions as to the appropriate policy and legislation tools to facilitate or promote an expanded and modernized district energy system on First Hill, if feasible and desirable. These will be explored by the City in parallel with the due diligence and negotiations with the successful Respondent. The City expects Respondents will also have creative ideas on innovative mechanisms the City may use to ensure project success and meet the interests of all parties.

Initially, there would likely be limited changes in assets, operation or pricing on First Hill. But it is anticipated that over time there would be cost savings to existing customers as a result of growth on First Hill, and opportunities to integrate new distribution assets and local (low-grade) renewable and waste heat resources owned and operated by the new retail service provider.⁶ It is expected the new provider would be responsible for upgrading and expanding district energy infrastructure on First Hill, as appropriate. While there is an ongoing need for steam among the Hospitals, it is expected that expansion of district energy would involve mostly hot water systems and could include incremental alternative energy sources over time. There may also be opportunities to replace existing steam distribution infrastructure over time (with growth or during major refurbishments) with hot water, possibly using distributed steam production for other purposes (e.g., sterilization). It is anticipated any arrangement for First Hill would be run under some sort of "open books" model, similar to other regulated energy utilities.

If successful and subject to appropriate consultations, the partnership and/or provisions in a demonstration ordinance could eventually be expanded to other neighborhoods within the City where district energy is given a high priority. Given upfront development time and costs, as well as potential efficiencies for the City and retail provider, the City will consider leveraging any partnership on First Hill for pursuing other opportunities, and in particular any synergies with possible district energy systems to serve nearby Capitol Hill.

⁶ Cost savings may come from a variety of sources including additional economies of scale, synergies among loads (e.g., capacity rationalization, waste heat utilization), and efficiency upgrades with the ability to redeploy freed capacity to serve future growth.

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VII. Submission Instructions

This section details the City instructions for your submission. The City reserves the right in its sole discretion to reject the submission of any respondent that fails to comply with the instructions.

Solicitation Schedule

Deadline for Submissions: Respondents are required to submit four (4) hard copies and one electronic copy of their response to Christie Baumel at the address listed on Page 1 of this solicitation. Submissions must be received on or before: **12:00 pm on Friday, March 16, 2012.**

Intent to Respond: Respondents are encouraged to submit an optional Notice of Intent to Respond in writing to christie.baumel@seattle.gov by **5:00 pm Tuesday, February 28th.**

Information Session/Bidders' Workshop: An optional information session will be held for prospective respondents. The session will be held: **Monday, February 27th, 2:30-4:30 pm in Seattle Municipal Tower, 700 5th Avenue, Room 4050.**

Written Questions: Questions relating to this RFQ may be directed in writing to christie.baumel@seattle.gov. Questions will be accepted until Tuesday, February 28th at 5:00 pm, and responses will be shared with all prospective respondents (those who have submitted an optional Notice of Intent to Respond) by Tuesday, March 6th.

The City reserves the right in its sole discretion to reject the submission of any respondent that fails to comply with submission instructions. Respondents are advised they have no claim for compensation in the preparation of their submissions and that by submitting a response to this RFQ, each Respondent shall be deemed to have agreed that it has no claim.

Confidentiality and Ownership of Submissions: The City may consult First Hill stakeholders from outside City government in the review and selection process for this RFQ, and may share portions of the solicitation responses for this purpose. Submissions should note any sections considered sensitive or proprietary. Any such noted sections will not be shared in the selection process for this solicitation. With this stated intent however, the City will continue to be responsive to all requests for disclosure of public records as required by State Law (the State of Washington's Public Records Act is referenced in Section VIII General Conditions).

Submission Content

All Respondents are required to provide the following information with their submissions, and in the order that follows:

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TITLE PAGE	The title page shall include the RFQ title and number, submission date, Respondent name, address, telephone number, email contact, and the name and title of the contact person.
TABLE OF CONTENTS	Page numbers should be indicated.
EXECUTIVE SUMMARY	A short summary of the key features of the Response demonstrating the Respondent's understanding of the requirement.
RESPONDENT PROFILE	Provide a description of your firm's background and profile including the number of years in business. Identify and provide resumes for the key personnel in the proposed team and outline what their roles will be in this project. If the proposal is for a consortium, information must be provided on all participants and the submission must name the firm that is deemed to be the Respondent representing the consortium in the event the consortium is selected.
PAST EXPERIENCE	Provide a description of past relevant projects and/or previous experience in designing, building, financing and/or operating district energy systems (with reference to the types of systems), with particular reference to experience with projects of similar type and size. Also, include a summary of operating experience focused on but not limited to district energy system operation and maintenance, fuel procurement, business assessment of alternative energy sources, related ancillary businesses such as metering and billing, rate design, and the independent regulation of utilities. Provide an indication of familiarity with the City and the local planning and energy context. If applicable, provide the name of contact person, address and telephone numbers for the referenced companies or organizations.
FINANCIAL CAPACITY	Respondents must demonstrate their financial capacity to design, build, finance, and operate a utility over an extended period of time. To demonstrate this requirement, Respondents must provide: <ul style="list-style-type: none">• A description of the financial and business resources available to support the modernization and expansion of district energy on First Hill, including development funding and capital structure.• Audited financial statements for a minimum of the last two years and a maximum of the last five years.• Most recent credit rating report, if applicable.
DRAFT MOU	Provide a draft form of the MOU the Respondent would expect the parties to sign in order to proceed with the Feasibility Assessment / Vision Phase. Outline key expectations for the City and commitments of the Respondent. Include some preliminary description of the likely requirements for Feasibility Assessment / Vision Phase, and the key business terms of any Definitive Agreements required for implementation of the district energy

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system and business partnership, if relevant. The MOU may include expectations for recovery of any study or due diligence costs, either upfront or in the event Definitive Agreements are not reached. Clearly state what costs may be subject to recovery (upfront or upon failure to execute Definitive Agreements), any cap or management protocols for these costs, and the specific terms for recovery.

FEASIBILITY

Provide an overview of the Respondent's approach to the Feasibility Assessment / due diligence for First Hill. Include a preliminary overview of the types of demand / supply scenarios that may be considered, evaluation criteria and considerations, approach for involving the City and key stakeholders, expected timelines, use of external consultants (if applicable), and expected cost and cost sharing arrangements (if applicable).

PRELIMINARY BUSINESS AFFRANGEMENTS AND OPERATIONS MODEL

Provide an example of a possible business / partnership model that may work for First Hill, including expected financing approach and costs, partnership structure and governance, scope of services and operating model for partnership, risk allocation, pricing principles, environmental objectives, and principles / incentives to guide and encourage system expansion by the district energy Respondent. Indicate expectations with respect to City participation in design, day-to-day operation, and ongoing development and expansion. Indicate resources and skills within and outside the Respondent that would be made available to the district energy system for the efficient and effective operation of the district energy system.

RESPONSE

Respondents should address the following as a minimum:

- 1) Provide a description of how each of the Solicitation Objectives in Section III can be met through the Respondent's submission, as well as possible trade-off scenarios for consideration by the City.
- 2) Provide some preliminary views on design considerations for the district energy system, including those technologies, system configurations, and allocation of assets / responsibilities (between the City, customers/developers and the respondent) that may be most appropriate for this application.
- 3) Provide a brief overview of possible modifications or additional strategies the Respondent may pursue to improve project outcomes or add additional value for the City, developers, and end users. These should include strategies the Respondent may use to advance the timing of alternative energy sources while maintaining a competitive service for end users.

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- 4) Confirm ability to meet proposed timelines identified in Section IV, suggested variance in timelines, and strategies to mitigate schedule risks.
- 5) Respondents shall provide at least 3 current district energy clients as references. Please provide details on the projects and the references' role in the project. Greater weight will be placed on examples and references involving ongoing involvement in system operation and expansion.
- 6) A brief testimonial as to why the Respondent should be interviewed for this project.

VIII. Evaluation of Submissions

The evaluation criteria for the review of submissions are as follows:

- The Respondent's ability to meet the Solicitation Objectives as set out in Section III of this RFQ;
- The Respondent's draft MOU (proposed terms and conditions for the Respondent to undertake Feasibility Assessment and negotiations);
- The Respondent's proposed approach to feasibility/due diligence, including approach to working with the City and key stakeholders, as well as timeline expectations for completing the feasibility and due diligence;
- The Respondent's business and technical reputation and capabilities of its personnel;
- The Respondent's general strategy and approach to providing a competitively-priced, reliable and environmentally responsible utility service to end-users, including approach to pricing, service agreements, transparency and governance;
- The range and suitability of possible partnership arrangements, policies and other strategies that would be considered by the Respondent for the delivery of district energy services on First Hill;
- Evidence of the familiarity and experience with the local planning, energy and legal context, district energy design and implementation, utility management and operation, financing, and partnerships;
- Evidence of the Respondent's innovation, flexibility, customer responsiveness, and community sensitivity in the delivery of district energy services; and
- The Respondent's financial and organizational capacity to undertake the project, including ability to ensure continued growth and renewal of district energy infrastructure, as appropriate.

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Although not the primary focus of this RFQ, the City will also give some consideration to the Respondent's interests and capabilities to deliver other district infrastructure related to water reuse, as SHA has expressed an interest in, and as is mentioned on page 17 of this Solicitation. However, this criterion will only be considered in the context of the Respondent's ability to deliver on the primary focus of district energy.

The City wants to ensure the best possible outcome for this project and invites Respondents to include in their submissions commentaries on opportunities and/or challenges related to the Project. Respondents should also identify any specific constraints the City should be aware of concerning its own submission or the project in general.

IX. General Conditions

1. **Not a Solicitation of Competitive Bids.** This Solicitation is not a solicitation of competitive bids. The City specifically reserves the right in its sole discretion to determine which response best serves the public good.
2. **City Discretion.** The City reserves the right to:
 - A. Revise the solicitation, evaluation, or selection process including extending the deadline or cancelling without selecting a Respondent.
 - B. Waive informalities and irregularities in the submissions received in response to this Solicitation.
 - C. Disqualify without recourse or appeal any or all submissions.
 - D. Reject any or all submissions with or without cause.
 - E. Determine the timing, arrangement and method of any presentation throughout the process.
 - F. Verify and investigate the qualifications and financial capacity of the Responder, and any of the information provided in the response.
3. **Accuracy of Information.** Every effort has been made to provide current and correct information; however, unless citing a specific City resolution or plan, the City makes no representation or warranty with respect thereto.
4. **Public Records.** The State of Washington's Public Records Act (Release/Disclosure of Public Records)

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Under Washington State Law (reference RCW Chapter 42.56, the *Public Records Act*) all materials received or created by the City of Seattle are considered **public records**. These records include but are not limited to proposal submissions, agreement documents, contract work product, or other material.

The State of Washington's Public Records Act requires that public records must be promptly disclosed by the City upon request unless a judge rules that RCW or another Washington State statute specifically exempts records from disclosure. Exemptions are narrow and explicit and are listed in Washington State Law (Reference RCW 42.56 and RCW 19.108). For more information, visit the Washington State Legislature's website at <http://www1.leg.wa.gov/LawsAndAgencyRules>).

If you believe any records you are submitting to the City as part of your submission or contract work product, are exempt from disclosure you can request that the City not release the records until the City notifies you about the pending disclosure. To make that request, you must complete the appropriate portion of the attached Non-Disclosure Request form and very clearly and specifically identify each record and the exemption(s) that may apply. Only the specific records or portions of records properly listed on the form will be protected and withheld for notice. All other records will be considered fully disclosable upon request.

If the City receives a public disclosure request for any records you have properly and specifically listed on the Questionnaire, the City will notify you in writing of the request and postpone disclosure, providing sufficient time for you to pursue an injunction and ruling from a judge. While it is not a legal obligation, the City, as a courtesy, allows up to ten business days to file a court injunction to prevent the City from releasing the records (reference RCW 42.56.540). If you fail to obtain a Court order within the ten days, the City may release the documents.

5. **Restrictions on communication.** Every effort has been made to include herein all the information necessary to prepare and submit a responsive submission to this Solicitation. However, in the event additional information is desired, please adhere to the following:

If you have a question about any of the information or requirements contained in this Solicitation, direct your question in writing to: christie.baumel@seattle.gov by February 28, 2012.

Only questions submitted prior to the deadline for questions will receive a response. All material questions and answers will be posted to the following website at http://seattle.gov/environment/district_energy.htm. Although the City may make a courtesy effort to provide notice of any such posted questions and answers to parties that have indicated their interest and provided the above Project Manager with an email address, the City is under no obligation to do so. As such, parties interested in this Solicitation should refer frequently to the website for information about this Solicitation.

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No Contact. During the course of this Solicitation process, Respondents are encouraged to refrain from undertaking any activities or actions to promote or advertise their submissions except in the course of City-authorized presentations or to make any direct or indirect (through others) contact with members of the City, IDT members (if named) or City staff members not identified in this Solicitation as a contact for specific information, except upon prior approval of the above stated Project Manager.

6. **Costs of Respondents.** The City accepts no responsibility or obligation to pay any costs incurred by any potential or eventual Respondents in the preparation of a submission, or in complying with any subsequent request by the City for information or participation throughout the evaluation process.
7. **Conflicts of Interest.** Respondents (including officer, director, trustee, partner or employee) must not have a business interest or a close family or domestic relationship with any City official, officer or employee who was, is, or will be involved in selection, negotiation, drafting, signing, administration or evaluating Respondent performance. The City shall make sole determination as to compliance.
8. **Protests.** Interested parties that wish to protest any aspect of this RFQ selection process are to provide written notice to the City Project Manager for this solicitation.

The City has rules to govern the rights and obligations of interested parties that desire to submit a complaint or protest to this RFQ process. Please see the City website at <http://www.seattle.gov/contracting>. Interested parties have the obligation to be aware of and understand these rules, and to seek clarification as necessary from the City. Note that there are time limits on protests, and submitters have final responsibility to learn of results in sufficient time for such protests to be filed in a timely manner.

X. Attachments / Background Materials

Materials will be available by link to City website

- Non-Disclosure Request Form
- District Energy Policy Report – by Compass Resource Management
- District Energy Pre-Feasibility Report – by AEI/COWI
- Yesler Terrace District Energy Study
- Seattle Steam Seismic Study
- Hospital Strategic Energy Management Plans
- The Seattle Fault Scenarios (2005) (<http://www.eeri.org/site/projects/eq-scenarios/seattle-fault>).
- Capitol Hill District Energy Study
- Council Resolution Approving the First Hill Partnership RFQ
- Harborview Hall Energy Plant RFP

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Christie Baumel
OSE Approving First Hill Partnership ATT A
January 6, 2012
Version #2

THIS VERSION IS NOT ADOPTED



STATE OF WASHINGTON – KING COUNTY

--SS.

281938
CITY OF SEATTLE, CLERKS OFFICE

No. 31354,359,360,361

Affidavit of Publication

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12th day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

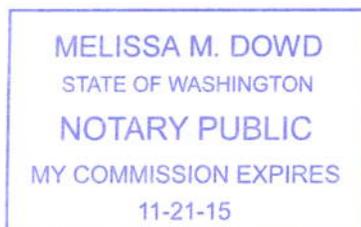
The notice in the exact form annexed, was published in regular issues of The Daily Journal of Commerce, which was regularly distributed to its subscribers during the below stated period. The annexed notice, a

CT:TITLE ONLY RESOLUTION

was published on

03/14/12

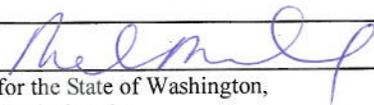
The amount of the fee charged for the foregoing publication is the sum of \$ 69.75, which amount has been paid in full.





Subscribed and sworn to before me on

03/14/12



Notary public for the State of Washington,
residing in Seattle

Affidavit of Publication

State of Washington, King County

City of Seattle Title Only Resolutions

The full text of the following legislation, passed by the City Council on February 21, 2012, and published below by title only, will be mailed upon request, or can be accessed at <http://clerk.seattle.gov>. For information on upcoming meetings of the Seattle City Council, please visit <http://www.seattle.gov/council/calendar>.

Contact: Office of the City Clerk at (206) 684-8344.

RESOLUTION NO. 31354

A RESOLUTION establishing the City's intent to seek a private sector partner to assist it in exploring possible models for expanding, upgrading, and/or developing district energy systems in certain areas of Seattle.

RESOLUTION NO. 31359

A RESOLUTION to provide the Families and Education Levy Oversight Committee with advisors appointed from the Seattle Youth Commission who can provide valuable insight and perspective to its stewardship responsibilities.

RESOLUTION NO. 31360

A RESOLUTION approving the proposed budget of the Skagit Environmental Endowment Commission for fiscal year 2012.

RESOLUTION NO. 31361

A RESOLUTION adopting Statements of Legislative Intent (SLIs) for the 2012 Adopted Budget and 2012-2017 Adopted Capital Improvement Program (CIP), and Budget Guidance Statements (BUGS) for the 2013-2014 Proposed Budget.

Date of publication in the Seattle Daily Journal of Commerce, March 14, 2012.

3/14(281938)

STATE OF WASHINGTON – KING COUNTY

--SS.

281938

No. 31354,359,360,361

CITY OF SEATTLE, CLERKS OFFICE

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CT: TITLE ONLY RESOLUTION

was published on

03/14/12

Melvin Bond

Subscribed and sworn to before me on

04/05/201

Jennifer Patzer

Notary public for the State of Washington,
residing in Seattle



State of Washington, King County

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Date of publication in the Seattle Daily Journal of Commerce, March 14, 2012.

3/14(281938)

FILED
CITY OF SEATTLE

2012 APR 13 PM 2:54

CITY CLERK

STATE OF WASHINGTON – KING COUNTY

--SS.

281938

No. 31354,359,360,361

CITY OF SEATTLE, CLERKS OFFICE

Affidavit of Publication

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12th day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

The notice in the exact form annexed, was published in regular issues of The Daily Journal of Commerce, which was regularly distributed to its subscribers during the below stated period. The annexed notice, a

CT:TITLE ONLY RESOLUTION

was published on

03/14/12

Melvin Bond

Subscribed and sworn to before me on

04/13/201

Jennifer Patzer

Notary public for the State of Washington,
residing in Seattle



State of Washington, King County

City of Seattle Title Only Resolutions

The full text of the following legislation passed by the City Council on February 21, 2012, and published below by title only will be mailed upon request, or can be accessed at <http://clerk.seattle.gov>. For information on upcoming meetings of the Seattle City Council, please visit <http://www.seattle.gov/council/calendar>.

Contact: Office of the City Clerk at (206) 684-8344.

RESOLUTION NO. 31354

A RESOLUTION establishing the City's intent to seek a private sector partner to assist it in exploring possible models for expanding, upgrading, and/or developing district energy systems in certain areas of Seattle.

RESOLUTION NO. 31359

A RESOLUTION to provide the Families and Education Levy Oversight Committee with advisors appointed from the Seattle Youth Commission who can provide valuable insight and perspective to its stewardship responsibilities.

RESOLUTION NO. 31360

A RESOLUTION approving the proposed budget of the Skagit Environmental Endowment Commission for fiscal year 2012.

RESOLUTION NO. 31361

A RESOLUTION adopting Statements of Legislative Intent (SLIs) for the 2012 Adopted Budget and 2012-2017 Adopted Capital Improvement Program (CIP), and Budget Guidance Statements (BUGS) for the 2013-2014 Proposed Budget.

Date of publication in the Seattle Daily Journal of Commerce, March 14, 2012.

3/14(281938)