

### REQUEST FOR QUALIFICATIONS DISTRICT UTILITIES PARTNER 17-003

**RFQ Released:** 

June 28, 2017

Due:

July 21, 2017 (3:00 PM MDT)

Contact:

Isabelle Wolfe

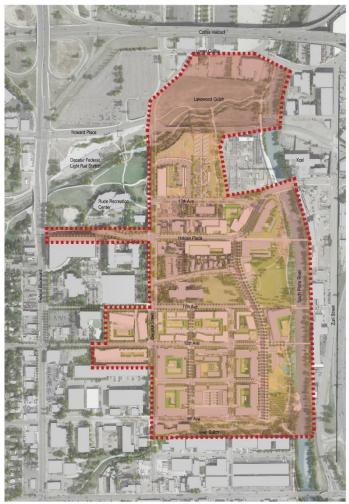
## Introduction

The Sun Valley EcoDistrict Trust ("SVED") has issued this Request for Qualifications ("RFQ") to select a utility service partner or partners related to district heating, electricity, water and wastewater. SVED is a private 501c3 non-profit corporation structured to lead the sustainable redevelopment of Sun Valley, a

West Denver neighborhood. SVED will serve as master developer for Sun Valley, coordinating key partnerships to deliver a variety of projects with a focus on social benefits.

As master developer, SVED will deliver horizontal infrastructure projects, and will also self-develop some buildings in Sun Valley. As the developer of horizontal infrastructure in Sun Valley, SVED's role is to prepare parcels in Sun Valley with all the necessary services and infrastructure. Buildings in Sun Valley will be developed by a range of parties including SVED, the Denver Housing Authority (DHA), and third-party developers. Some buildings developed by SVED will be transferred to DHA upon completion.

The district scale services SVED is seeking through this RFQ are not necessarily replacements for traditional utility services and SVED is not necessarily seeking systems and solutions which would be exclusively responsible for providing utility servicing to all sites in Sun Valley. Rather, SVED is seeking district utility partners which will contribute to SVED's goals for Sun Valley; these may be



Sun Valley EcoDistrict Project Boundary



complementary to or in lieu of traditional utility services.

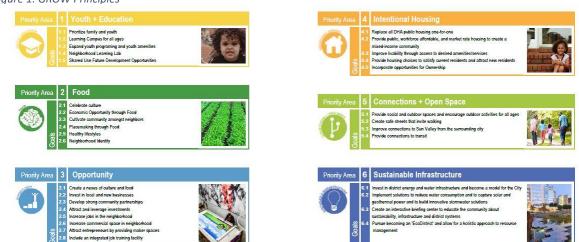
This RFQ provides background information and development program details in order for Respondents to accurately submit qualifications related to one or multiple utilities outlined in this solicitation. SVED acknowledges the short amount of time to respond to this RFQ and has attempted to provide ample project information to allow for Respondents to accurately relate experience and qualifications to the listed Scope of Services. The schedule is designed to allow for the selected partner(s) to help SVED coordinate the beginning phases of the redevelopment of Sun Valley. We greatly appreciate all respondent's agility and effort to submit and look forward to reading all responses.

## Background

Sun Valley is a formal city-recognized neighborhood in west Denver with a compact census tract of 0.64 square miles bound by: Colfax Avenue and the Broncos Stadium on the north, Federal Boulevard on the west, 6th Avenue and the light industrial district on the south, and the South Platte River on the east. Sun Valley is Denver's lowest income neighborhood and home to only 1,500 people. The majority are residents of a distressed DHA public housing site comprised of 333 units spread over 30 acres in the heart of the neighborhood. Other neighborhood residents live in Mercy Housing's transitional housing, Decatur Place, and a small number of single family homes. SVED is leading the redevelopment of Sun Valley into a dense, mixed-use neighbourhood.

Multiple planning processes for Sun Valley, led by various partners, have been to date including the <u>Decatur-Federal Station Area Plan</u> (SAP), the <u>Sun Valley General Development Plan</u> (GPD), and the Sun Valley Transformation Plan (CNI Planning Grant)(Attachment 3). These plans all outlined the challenges and incredible potential for positive public and private investment in Sun Valley. The neighborhood is the first stop on Denver's FasTracks West Corridor light rail line, providing improved access and connectivity for the neighborhood residents. Improvements have been made to the South Platte River for flood management and recreation, and transformation of the Weir and Lakewood Gulches from industrial waterways to landscaped amenities. Future plans include the City's allocations to commercial building improvements and business lending in the thriving industrial center to the south. And in the middle, DHA will be redeveloping the current Sun Valley Homes into new mixed income, multi-family housing to integrate with other planned urban ventures and amenities.

As part of the foundation for any work completed in Sun Valley, projects must embrace and reflect the voice of the community. Through years of planning, the team and the community have worked hard to outline what equitable and authentic revitalization means for Sun Valley. The core of this foundation comes from the Sun Valley CNI Transformation Plan and its six GROW Principles: 1) Youth + Education; 2) Food; 3) Opportunity; 4) Intentional Housing; 5) Connections + Open Space; and 6) Sustainable Infrastructure. All work that is to be done in Sun Valley should recognize these GROW Principles and incorporate them into their understanding of their responsibilities to this next great neighborhood of Denver.



#### Figure 1: GROW Principles

## **Development Program and Timeline**

While there is a larger area that has been designated as the Sun Valley EcoDistrict (shown in Figure 2), SVED's master development role is defined as the area identified as the "SVED Core". The SVED Core is the area covered by this RFQ and includes all parcels that should be connected to future district systems. Though not assumed in this RFQ, the adjacent zones will potentially be part of the district system in the future and proponents should be well positioned to pursue expansion opportunities into these areas.

The development of the SVED Core area is imminent. SVED is currently in the schematic design stage on the first project, a 150,000 SF office building (parcel 30), and is launching design in the next 30 days on the first phase of housing (parcel 17). SVED would like to see these projects help establish the beginnings of district-scale systems which help achieve SVED's goals for the neighborhood.

The development parcels in the SVED Core will need to be strategically timed in order to align with key infrastructure improvements including street realignment and designing a new street grid throughout the existing public housing area. SVED has partnered with a district civil engineer to lead this work. SVED anticipates that the proponents for the services sought in this RFQ will work closely with SVED's civil engineer to coordinate the installation of infrastructure and minimize the incremental costs to install these services. Please see SVED's Infrastructure Phasing Map (Attachment 2), for a graphic representation.

Because the development of the first few SVED Core sites is imminent, SVED will work with successful proponents to accelerate some work required to provide service to these first few buildings. The most urgent being a set of guidelines for the first two phases of housing within the district. This required work is described in more detail below.

Table 1: SVED	Core Deve	lopment Timeline
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Phase	Parcel	Developer	Туре	Floor Area Sq	# Housing	Design	Construction
Flidse	#s	Developei	туре	Ft	Units	Start	Start
1	30	SVED	Office	150,000	n/a	2016	2018
1	17	SVED	Residential	171,650	132	2017	2018
2	1, 5	DHA	Residential	183,250	111	2017	2018
2	1, 5			106,550	66		2018
3	15	Residential	84,700	125	2018	2019	
5	16	SVED	Residential	135,100	135		2019
4	13	SVED	Residential	95,500	100	2018	2019
5	2,3	DHA	Residential	312,890	125	2018	2019
6	4	DHA	Residential	127,843	82	2019	2020
7	20	SVED	Commercial	32,000	n/a	2019	2020
8	26	SVED	Commercial	6,000	n/a	2017	2018
9		SVED	Commercial	Various	n/a	2018	2019
10-15	6-11	TBD	Res/Commercial	Various	TBD	2020+	2020+
Totals	Phases 1-8		1.4 M SF	750			
Totals All Phase (1-8, 6-11 potential)		2+ M SF	750- <i>1,959</i>				

#### Table 2: SVED Development Roles

Master Developer	SVED				
Property Types	Residential & Community Space Commercial				
Property Developers	SVED	SVED	DHA	Third Parties	SVED
Long-Term Owners	SVED	DHA	DHA	Third Parties	SVED



## Scope of Services

Sustainable infrastructure is one of several priority areas that have been identified in the communitydriven master plan currently underway. Through this RFQ, SVED is seeking one or more proponents of neighborhood utility solutions for thermal energy, electricity, water, and storm water and/or wastewater services. This could include centralized systems (e.g., neighborhood-scale heating) and/or decentralized systems developed and administered under a utility model (e.g., a solar roof program). The focus of this RFQ is on utility services for the SVED Core. However, there is also considerable potential for proponents to expand services to adjacent areas beyond the direct control of SVED, such as the Stadium District. The purpose of this RFQ is to select one or more utility partners to work with SVED in refining utility concepts for the neighborhood; preparing business cases; and developing, owning, financing and operating utility services as feasible.

Ideally, utility solutions will support key neighborhood objectives for:

- Affordability i.e., lower lifecycle costs for residents and businesses
  - o Rationalization and amortization of capital costs
  - Access to alternate funding sources
  - Waste recovery, optimization and management of systems
- Environmental sustainability
  - to develop the SVED Core as a zero-energy district, defined as a district which relies only on renewable energy resources
  - o climate protection
  - to promote water conservation by reducing the SVED Core's consumption of municipal potable water resources
- Community resilience
- Employment opportunities potentially including job training programs, and opportunities for workers with a wide range of education and experience
- Social equity
- Supporting youth over 50% of the current population of Sun Valley is under the age of 18.
  SVED is committed to supporting Sun Valley's youth. Possible avenues for district utility services to support youth include
  - o job training
  - place-making efforts (i.e. a visitor center or other educational resources)
- Project Documentation to support future education and research

SVED recognizes that these are ambitious objectives which potentially have significant cost impacts. For that reason, SVED is primarily focused on identifying an effective partner or partners for helping SVED achieve these objectives, whether immediately or through solutions that future-proof the community.

SVED has not made a final decision on the scope of services to be delivered through a utility model or the exact form these utilities will take. For example, SVED would like to investigate solar PV opportunities for the neighborhood as a whole. Solar PV could be delivered through a variety of ownership and contract structures alongside a traditional electrical utility distribution system. But SVED is also open to a neighborhood-scale microgrid solution. With some restrictions described below, respondents are free to consider any solution.

Individual respondents (which could include consortia where relevant) are invited to provide their qualifications relevant to a single service and/or multiple services. For each service, there are certain elements which Respondents to that service must comment on in their Submission. These elements are identified as "Mandatory Concepts" in Table 3. More detail on the Mandatory Concepts and context for each service is provided in Attachment 1, and the "Submission Contents" section of this RFQ provides more detail on how respondents are expected to address each Mandatory Concept in their Submissions. Respondents are also invited to comment on the form and viability of mandatory concepts, improvements or optimizations to mandatory concepts, and suggestions for other approaches, concepts or considerations to maximize benefits to Sun Valley. SVED is open to a range of technical solutions and business arrangements and asks Respondents to identify whatever approach they believe can yield the greatest benefits for Sun Valley based on the available information.

Some technical solutions may cut across multiple services. For example, combined heat and power involves both thermal energy and electricity production. Submissions which include such cross-cutting solutions are not required to comprehensively address all relevant services; they can focus on a single service, and identify ways in which the technical solution could contribute to another service. However, SVED may give additional weight to submissions which meet multiple service requirements and/or objectives simultaneously, and can demonstrate synergies from doing so.

	Thermal Energy	Electricity	Water, Wastewater & Storm water
Mandatory Concepts to be addressed in submission on this service type	Hot water district heating service, with paths to partial or full renewable and low- carbon energy supplies. Submission to address development of	Solar photovoltaics (can be building-scale or community-scale, with various business models).	No mandatory elements. Can address any combination of water, wastewater & storm water.
	Connection Guidelines.		
Optional elements (none are mandatory, other suggestions welcome)	District cooling service, combined heat and power, thermal storage.	Microgrid (possible tie- in with healthcare campus), combined heat and power.	Rainwater harvesting, greywater re-use, storm water management infrastructure, neighborhood-scale wastewater treatment.

#### Table 3: Mandatory and Optional Elements for Each Service

SVED is seeking responses from proponents that are prepared to study, develop, own, finance and operate systems. SVED does not anticipate participation in ownership of utility services, although it has also not ruled this out where this would secure better outcomes. Where viable and desirable, SVED is prepared to support the development of utility services throughout the neighborhood using various enabling tools which may include among others:

- Preparation of development standards for the neighborhood that recognize and promote the benefits from utility services
- Entering into service agreements for land under SVED's master development
- Contribution to capital costs where there are offsetting reductions in other costs
- Working with proponents to secure and funnel grants or alternate forms of financing for utility services
- Public consultation
- Provision of rights of way, sites or access to resources for the delivery of utility services
- Coordination among infrastructure projects
- Support for policy changes required to accommodate certain technical solutions

Decisions on utility services and service providers will be staged. This process will identify one or more partners to advance and confirm one or more utility concepts. Pending the outcome of feasibility and due diligence with selected partners, SVED will negotiate infrastructure and service agreements, as relevant.

#### **IMMEDIATE SCOPE**

For thermal energy service, SVED also requires respondents to comment and describe capacity and approach for the development of Connection Guidelines to support building design work in September, 2017. This is described in more detail in Attachment 1.

#### **FUTURE SCOPE (Potential)**

This RFQ is only for services within the SVED Core area. However, immediately north of the SVED Core in the Stadium District, the Denver Broncos (the main tenants of Mile High Stadium) have a vision to create a \$351 million entertainment district in the northern part of Sun Valley that is expected to feature retail, commercial and residential developments. The Metropolitan Football Stadium District (land and stadium owner) and the Denver Broncos (tenant) are accelerating their plans to redevelop the Stadium District. SVED has a long-standing working relationship and meets weekly with MFSD and the Broncos to discuss development plans and progress. SVED's first project (parcel 30) is adjacent to the future area to be redeveloped by the Stadium and could be an opportunity to establish district systems for the stadium to plug-in to.

## **Expected Process and Timeline**

SVED anticipates the following process, but is open to alternative phasing if proposed by respondents:

#### Phase 1 – Request for Qualifications, Selection of Proponent and Negotiation of MOU

SVED will review all Respondents' responses to the RFQ. SVED may request to interview one or more Respondents in person. Using the criteria described in "Evaluation of Submissions", SVED will select Respondents for each service. SVED is not obligated to select Respondents for all services. SVED may also select the same Respondent for two or more services.

SVED and the selected Respondent or Respondents (the "Proponent(s)") will negotiate memoranda of understanding ("MOU" or "MOUs") for the relevant services. These MOUs will guide the business cases, and will also establish principles and preliminary terms, as agreed upon by the parties, for any Infrastructure and/or Services Agreements that may be required to provide services. The MOUs are expected to establish roles, responsibilities, timelines, outcomes, and cost sharing provisions for the Feasibility Study phase. SVED may at its discretion provide financial support for studies to be undertaken by Proponents. The MOUs will confirm ownership of all work product prior to definitive agreements. For thermal energy service, this phase will also include negotiating the terms upon which the successful respondent will begin developing Connection Guidelines.

#### Phase 2 – Business Case Phase & Connection Guidelines for Thermal Energy Service

In this phase, the Proponent for each service will develop a business case for service. This phase is expected to address at a minimum the relevant Mandatory Concepts as defined in this RFQ; however, the precise scope and level of effort will be agreed upon by SVED and Proponent and specified in the MOU. The business case is expected to confirm the scope and form of services, the technical solution(s), business structure, pricing approach (including alternate or supplement revenue sources), and necessary agreements. The Proponent and SVED will draw on the results of the Business Case to negotiate Definitive Agreements.

For thermal energy service, the Proponent will also work to develop Connection Guidelines to be used by building design teams in the fall of 2017, as described in more detail in Attachment 1.

#### Phase 3 - Negotiation of Definitive Agreements

Upon successful completion of the business case, SVED and the Proponent(s) will negotiate all Definitive Agreements required for the development and delivery of services. This could include physical infrastructure agreements, services agreements and any other ancillary agreements required between SVED and the Proponent(s) to ensure development of technical solutions and delivery of services.

These agreements will establish the parties' commitments and their respective roles and responsibilities. Potential infrastructure agreement terms are as follows:

- the scope of services to be provided
- technical solution or solutions
- ownership of assets and business arrangements
- responsibility for long-term operations
- interface with or impact on SVED Core buildings, and any building design requirements
- timelines for development
- payment terms and/or rates (including formulas or other mechanisms for rate adjustment)
- risk allocation
- land and access requirements, and payments for land and access
- provisions for temporary service in the event permanent infrastructure is not available
- approvals and regulatory requirements
- environmental commitments
- phasing of any project elements

Upon completion of the Infrastructure Agreement, it is expected all additional study and design costs will be the sole responsibility and at the sole cost of the Proponent.

#### Phase 4 - Implementation

Proponents will develop and operate the service or services, including acquiring all necessary regulatory and permit approvals.

## Submission Contents & Schedule

#### **Cover Letter & Introduction**

Introduce the Respondent and provide contact information. Provide a description of the Respondent's background and firm profile, including number of years in business. Clearly identify which service or services the Respondent's submission addresses. Respondents may address only a single service, or multiple services. If the Respondent is interested in providing multiple services, please provide a single submission, with sub-headings within the submission as needed to distinguish between information applicable to each service.

#### 1. Experience

Provide a description of past relevant projects and/or previous experience in designing, building and operating neighborhood-scale services, 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 system operation and maintenance, procurement, and related ancillary businesses such as metering and billing. Please also include any experience with rate design, rate-setting, and contract governance. Provide a reference with contact information for each project.

#### 2. <u>Capacity</u>

Please demonstrate how your team will work together including an organization chart. Respondents must demonstrate their financial capacity to design, build, finance, and operate the service over an extended period of time. To demonstrate this requirement, Respondents must provide (these can be provided as attachments and excluded from the page count limit):

- Key personnel who would be involved in the project
- A description of the financial and business resources available to support the project
- 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.

#### 3. Approach

Based on the available information on development plans for the SVED Core area, and SVED's goals, describe your approach to this project including any technical solutions likely worth investigating during the Feasibility Study stage. Please also describe the business arrangements, or a range of business arrangements, which may be appropriate.

#### 4. Immediate Scope

For respondents addressing thermal energy service, please also comment on the Design Guidelines, including:

• appropriateness of developing Connection Guidelines in advance of detailed system design

- typical terms required in a Connection Guidelines document
- a schedule and strategy for developing Connection Guidelines by the fall of 2017
- the feasibility of developing generic Connection Guidelines that would be acceptable to most utility operators, in the event that SVED and the successful thermal energy proponent ultimately cannot reach Final Agreements.

Please identify how your firm will work toward inclusive and meaningful participation by SBE/DBE/MBE/WBE firms and your recommended reporting of such.

#### Other Optional Contents:

Provide a proposed process for the remaining work to reach definitive agreements, including:

- phasing and timelines;
- expectations for cost sharing or backstopping at each phase;
- proposed metrics for evaluation;
- strategies to allow review and due diligence by SVED; and
- any other process considerations or expectations.

#### Table 4: RFQ Timeline

RFQ Released	June 28, 2017
Questions Due	July 5 (3pm MDT)
Answers Released	July 10
Responses Due	July 21 (3pm MDT)

#### **Questions:**

Questions should be submitted via email to the contact listed below. Questions will be combined, answered and then circulated to the entire distribution list.

#### **RFQ Responses:**

Respondents must submit five (5) bound copies of their response and an electronic copy via flash drive. Responses are limited to twenty (20) double sided pages excluding the cover letter and table of contents. Please ensure a point of contact is listed for all future communication regarding the RFQ. All Responses shall be enclosed in an envelope, sealed, and identified as follows:

Addressed to:	Sun Valley EcoDistrict Trust 1001 Bannock Street #313 Denver, CO 80204 Attn: Isabelle Wolfe
RE:	SVED RFQ 17-003 Respondent Name

#### **Ownership of Materials**

All materials submitted in response to this invitation become the property of SVED and supporting materials will not be returned. SVED is not responsible for any costs incurred by the company in the preparation of responses, presentations or related meeting time.

# Attachment 1: Concepts and Context for Each Service

#### **Thermal Energy**

A district heating system is a Mandatory Element for a Thermal Energy service submission. SVED is interested in a hot water heating system which provides usable heat to connected buildings in the SVED Core, with possible expansion to adjacent areas such as the Stadium District. SVED expects that district heating service would be connected to all sites in the SVED Core, but is open to removing some sites from the scope of this service if appropriate.

Respondents are encouraged to provide their comments and insights on SVED's objective of achieving a zero-energy district which relies only on renewable energy. SVED expects that this will require at least a preliminary discussion of one or more of the optional elements listed below. Optional elements include but are not limited to:

- *Cooling service*. Some or all buildings served by the district heating system could also receive district cooling service via a separate network. The first two phases, which will be under development shortly, may need to be excluded from cooling service in any event as further investigation is likely required before any commitment to provide cooling service.
- *Geoexchange*. A geoexchange field could provide a low-carbon resource for heating service, or both heating and cooling service.
- *Thermal energy storage*. A district energy system could be combined with thermal energy storage to make better use of intermittent resources.
- *Combined heat and power*. CHP could provide an on-site thermal energy resource with additional electricity production benefits.
- *Waste heat from sewage*. Several major sewage lines are in the area and provide a potential heat source.
- *Bioenergy*. Bioenergy is a possible low-carbon energy resource.
- *Xcel connection*. Sun Valley is near the existing Xcel steam system; connection to the Xcel system (potentially via a steam-hot water converter station) could be used to support the initial growth of the network and provide peaking and backup thermal energy, avoiding the need to build a plant on-site.

SVED expects the Feasibility Study for thermal energy service to include a detailed examination of the business case for the district heating project (or for an expanded heating and cooling project, if applicable). This feasibility study would compare the lifecycle cost of delivering usable thermal energy to customer buildings, compared against the lifecycle cost for customer buildings to produce the same usable thermal energy on-site.

The SVED Core area is near Xcel Energy's Zuni Generating Station, a gas-fired combined heat and power facility that produces electricity as well as steam for use by the downtown Denver steam heating system. Xcel is exploring decommissioning the plant, and there is a possibility it will be replaced in future

with a smaller steam plant to support the district heating system. The district heating system currently does not reach Sun Valley, as the steam lines run east from the Zuni Generating Station towards downtown.

SVED has been in communication with the City and County of Denver about the use of the Lakewood Gulch area for neighborhood energy infrastructure, and this area may be available for geoexchange installation or other thermal energy resources (though it is also being considered for other uses, which may or may not be compatible with thermal energy uses).

In addition, respondents addressing thermal energy service are required to comment on SVED's need to provide Connection Guidelines. As noted in the main body of this RFQ, design of the first two phases of housing will begin in September 2017. SVED's goal is to be able to provide thermal energy Connection Guidelines to the design teams for these phases, including the key information they will need on hot water district energy service: building secondary side design requirements, service supply temperatures, and in-building space requirements (including location requirements) for the energy transfer station. SVED's understanding is that these Design Guidelines will be driven chiefly by the Denver climate, typical building practice in Denver, and the need to provide hot water DE service with a goal of eventually converting to a low-carbon source.

Respondents are required to comment on these Connection Guidelines, including:

- appropriateness of developing Connection Guidelines in advance of detailed system design
- typical terms required in a Connection Guidelines document
- a schedule and strategy for developing Connection Guidelines by the fall of 2017
- whether it is feasible to develop generic Connection Guidelines that would be acceptable to most utility operators, in the event that SVED and the successful proponent ultimately cannot reach Final Agreements.

SVED acknowledges that there is some risk in providing connection guidelines prior to executing Final Agreements with a district energy provider, but SVED is committed to developing district energy in Sun Valley and is of the view that working initially with the successful proponent to develop appropriate Connection Guidelines will be required to keep the project on-schedule and ensure that all buildings within the SVED Core area are served by the district energy solution. SVED also acknowledges that, given that cooling may be under consideration as an additional thermal energy service, but likely requires further investigation, it is not likely that the first two phases would be served by a district cooling solution, if one is developed at all in Sun Valley.

Developing Connection Guidelines will be one of the first tasks for the successful thermal energy proponent, and will likely be completed before the Feasibility Study. SVED expects that the successful proponent would be able to immediately begin designing Connection Guidelines, under an arrangement with SVED (either through the MOU, or a separate agreement). These Connection Guidelines will be refined further once more system design has occurred.

#### Electricity

Due to SVED's objective of achieving a high level of environmental performance and Colorado's strong solar power resource, a solar photovoltaic system is a Mandatory Element for an Electricity service submission. Neighborhood-scale Electricity service concepts do not need to interface with or be connected to all properties. Respondents to this RFQ are encouraged to identify technical concepts and solar PV business arrangements which may be well suited to SVED and Sun Valley. SVED is open to a range of physical installation options for solar PV, and has assumed that a high proportion of solar PV site coverage will be required to help achieve SVED's objectives. SVED is interested in a utility-scale solar PV project, but is open to a range of business arrangements. SVED expects the Feasibility Study for electricity service to include a detailed examination of the business case for the solar PV project. SVED has been in communication with the City and County of Denver about the use of the Lakewood Gulch area for neighborhood energy infrastructure, and this area may be available for a solar PV installation (though it is also being considered for other uses, which may be compatible with PV).

Other optional elements include but are not limited to:

- *Combined heat and power*. CHP could provide an on-site electricity resource which, while not zero-carbon, may have a lower GHG signature than grid electricity.
- *Microgrid*. A microgrid could provide increased electricity reliability to the Sun Valley area, which may have value for the health care campus adjacent to the SVED Core. It may also enable alternative models for purchasing electricity, and for the sale of excess on-site electricity production.

The SVED Core area is within Xcel Energy's service territory, and there is an Xcel substation on the west side of the South Platte River which will remain during and after the redevelopment of Sun Valley.

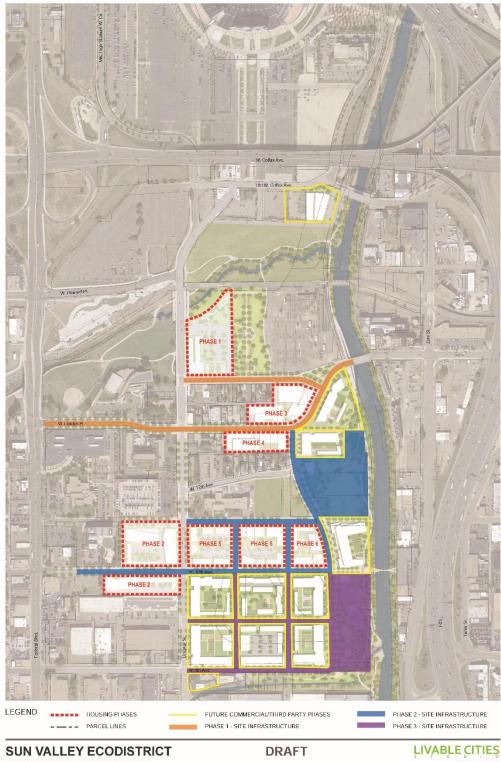
SVED has been in discussion with a third party interested in developing a battery storage pilot project in Sun Valley. The exact scope of this pilot project is not yet confirmed, but if it proceeds there may be opportunities to combine battery storage with solar PV or other on-site renewable resources.

#### Water, Wastewater & Storm Water

There are no Mandatory Elements for submissions on Water, Wastewater & Storm Water service. Neighborhood-scale concepts do not need to interface with or be connected to all properties. Respondents are encouraged to suggest approaches and technical concepts which may be well suited to SVED and Sun Valley. Possible elements include but are not limited to:

- *Rainwater harvesting.* Colorado law is in development on this issue; we know of at least one master-planned community (Sterling Ranch) which is pursuing neighborhood-scale rainwater harvesting systems which go beyond the property line.
- *Greywater re-use*. These systems can reduce the use of potable water for irrigation and other needs.
- *Stormwater management.* Stormwater infrastructure can be integrated with landscaping to provide natural water features and water filtration.
- *Neighborhood-scale Wastewater Treatment*. Local wastewater treatment systems can reduce loads on regional sewage systems while providing effluent to be used for local non-potable water demand.

## Attachment 2: Infrastructure Phasing Map



INFRASTRUCTURE PHASING MAP

JUNE 2017

## Attachment 3: SV Transformation Plan

Please see the attached PDF.