



Advisory Group Meeting

Thursday, December 7, 2023 | 6-8 PM

Yachats Civic Campus Resiliency Planning Project

ODOE Renewable Energy Grant



Meeting Goals

Key Priorities for this Meeting

- 1. Testing options** based on what we heard at the first workshop
- 1. Confirmation on direction of approach**
- 1. Help us narrow the projects and priorities** to begin refining:
 - evaluation criteria and
 - projects for ODOE Phase 2 construction (\$1 million for construction, no match required)

Agenda

- 6:00 *Welcome* 5 min.
- 6:05 **Draft Open House Summary**
15 min.
- 6:25 *Discussion* 20 min.
- 6:40 **20 min. Sequence of Priority Options**
Priority project
Sequencing of other priority projects
Creating Greatest Potential for Success
- 7:00 *Discussion* 20 min.
- 7:20 **10 min. Open House - Dec. 14th, 6-8 pm**
Objective, Format, Questions



ODOE Energy Grant

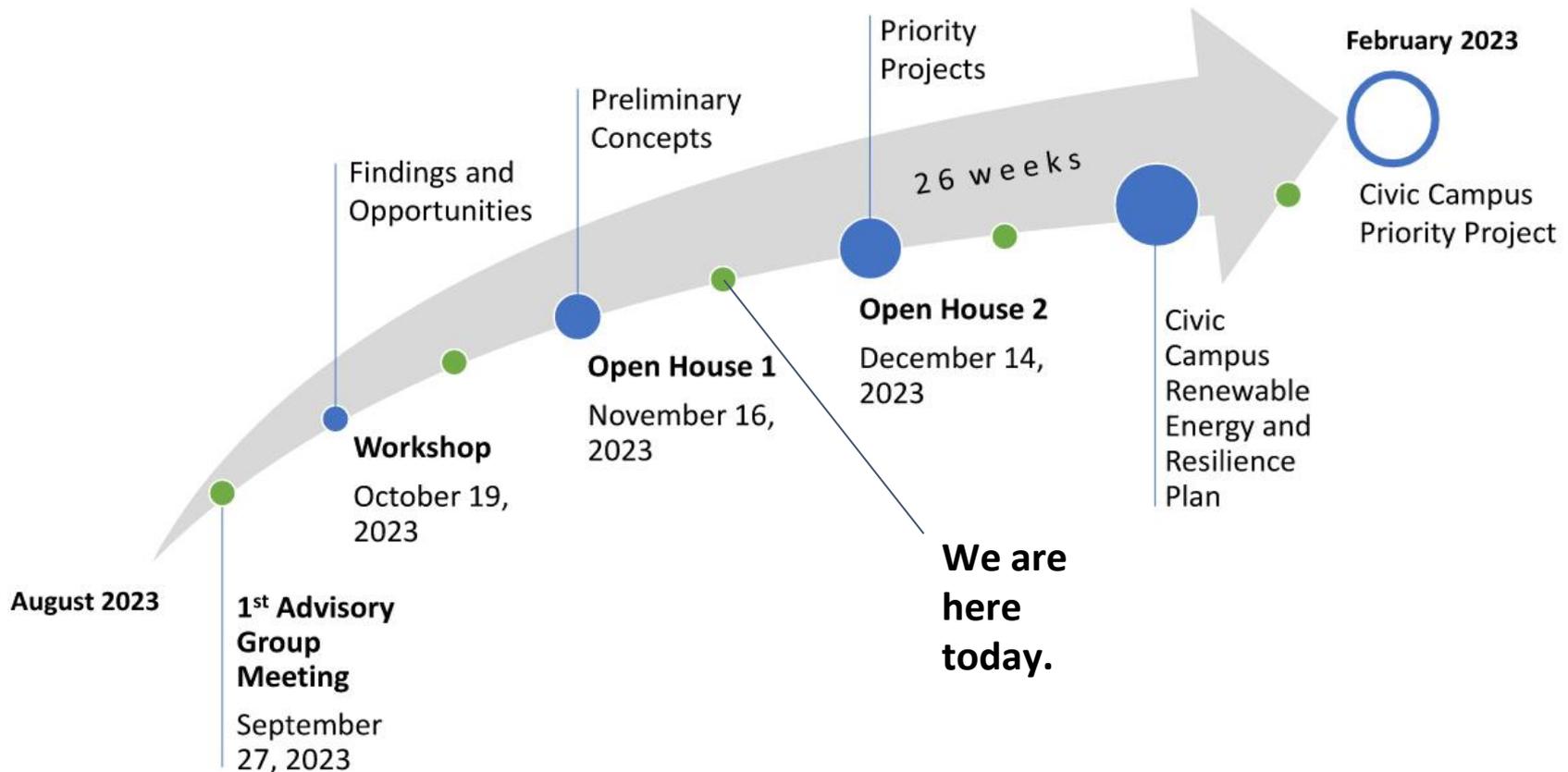
Community Energy Renewable Project Grant

The City of Yachats received a \$100,000 Renewables & Resiliency grant for planning a “Resilient Civic Campus” project.

This grant will help with:

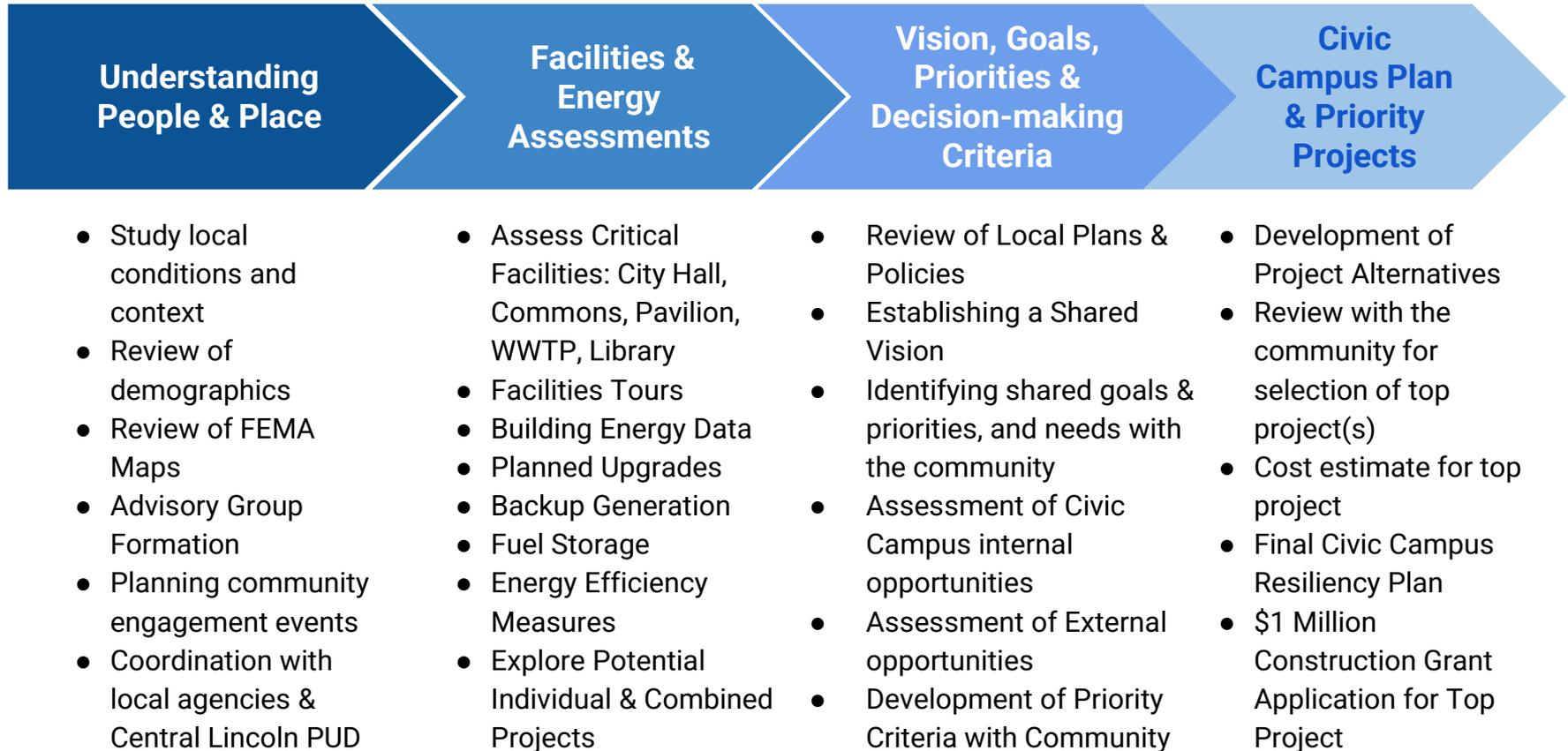
- **Technical Studies:** building energy & site analysis
- **Building & Site Planning** to provide renewable power and hazard preparedness to reduce risks
- **Community Involvement** to identify priorities, needs and criteria for decision-making
- **Planning & Selection of a renewable energy project** for a Phase 2 - \$1 million ODOE construction grant

Where we are in the Process



OVERVIEW | Project Process & Key Steps

The following is an overview of project process and planning steps to determine core priorities, opportunities, and key criteria for decision-making, selection of priority projects, and a final plan.



We need to provide power

How will we do it?

- **Renewable Power (solar, wind, hydro.)**



- **Batteries**



- **Interconnection of buildings**

- **Existing backup generation infrastructure**

Civic Campus + City

Renewable energy opportunities to provide the community enhanced power, communication and access to resources following a disruption



Power

- Solar
- Ground Source
- Battery Storage



Communication

- Cell
- Wi-Fi
- Satellite
- Data



Access

- Bike and Walking Access
- ADA
- Shared Transport
- EV Charging

How are we make decisions?

We'll consider:

- **Results from Technical Building Assessments**
- **Technology options**
- **Scale options**
- **Hazards & emergency preparedness impact**
- **Investments that leverage other priority goals**

What else should we consider?

We may not be able to respond to all aspirations but we can identify the goals and priorities, and identify what is achievable in this project and subsequent efforts



**Renewable Energy Project Concepts
for a Resilient City & Civic Campus**

OPEN HOUSE

November 16, 2023 | 6-8 PM

Food & Refreshments

Commons Multi-purpose Room | 441 Hwy 101 N, Yachats

Share priorities for public improvements at the Civic Campus

Yachats has an Oregon Dept of Energy grant for Community Renewable Energy & Planning to:

1) develop a "Resilient Civic Campus Plan", and 2) select a priority renewable energy project eligible for a subsequent \$1 million construction grant.

- **Share your vision and learn about potential project options** that could help Yachats Civic Campus and our community become more resilient by using renewable energy projects
- **What renewable energy projects should be priorities?** Share your needs and goals for how the Yachats Civic Campus might support you in an emergency and/or might enhance community activities with improved amenities. You can RSVP and give input now via the survey linked below.

RSVP & SURVEY: bit.ly/CivicCampusSurvey-RSVP

www.yachatsoregon.org/ODOEnergygrant

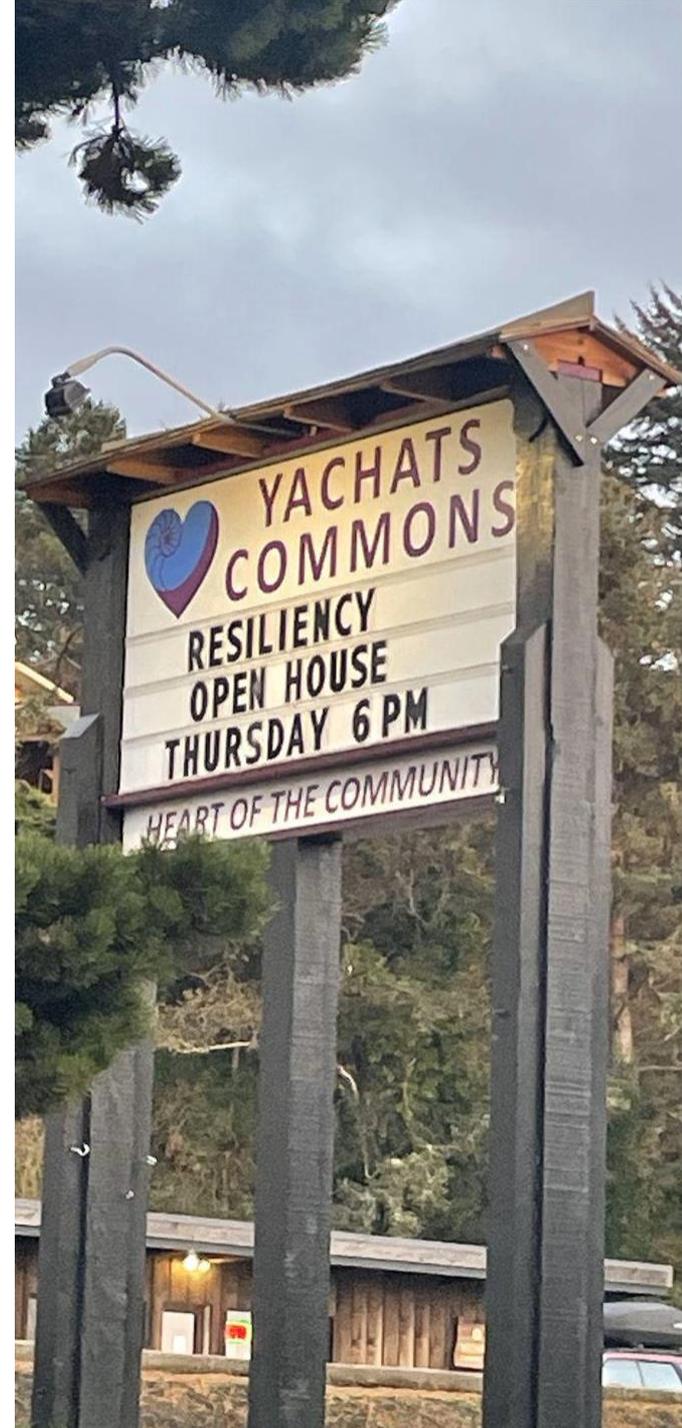
**Open House
Take-Aways**

Open House Stations

- City Scale, Vision & Goals
- Hazard & Emergency Response
- Campus Facility Energy Assessment & Recommendations
- Candidate Projects Station

Meeting Handouts:

- Project Summary, Key Tasks & Timeline
- Technical Analysis
- Printed Survey forms



4 | DESIGN CONCEPTS & OPPORTUNITIES

Talk to designers and give input on:

- Options for locating renewable energy projects at the Civic Campus
- Tradeoffs and design benefits
- Amenities and improvements
- Placemaking opportunities

3 | FACILITY ASSESSMENTS & CAMPUS FRAMEWORK

Talk to engineers and energy experts about their energy analysis of Civic Campus buildings including:

- Renewable energy generation and zero energy building opportunities
- Renewable systems (e.g. wind, solar PV, solar thermal, etc.)
- Energy storage & backup strategies
- Energy efficiency opportunities

2 | HAZARDS & EMERGENCY RESPONSE

- View Hazard maps & emergency response plans
- Share ideas and special needs for you and your family in an emergency
- Sign up for the Emergency Planning Committee

5 | COMMUNITY PRIORITY SURVEYS

- Pick up, fill out & submit paper surveys

1 | CITY SCALE VISION & GOALS

- Share your goals and vision for a resilient Civic Campus & City
- Hear what we've heard from others
- Discuss role of other city emergency response services and locations (e.g. Fire Station, caches, etc)
- Review decision-making criteria for a project

Open House Takeaways

Group Discussion

- **Campus as Demonstration Hub:** Support for the Civic Campus as a sustainability and resiliency demonstration hub.
- **Library:** Interest in whether the Library project might be included in the grant
- **How can we support South of Bridge residents more?** How can this be integrated more?
- **Generators & Fuel Storage:** The Waste Water Treatment Plant generators can be a significant source of emergency power in an emergency so planning for fuel storage supplies will be important and some expressed interest in locating this at the Fire Station.
- **Ongoing Training:** Ensuring the community is well trained on how to respond in an emergency is important idea. Like the idea of leveraging past Emergency Preparedness Festivals Yachats has hosted as an annual planning and education event received great support.
- **Support for 4th Street Canopy adjacent to Commons:** Strong interest in the co-benefits of a solar canopy behind the Commons close to 4th Street for additional amenities, festivals, farmer's market usage, and community recreation.

Open House Takeaways

City-Scale, Vision & Goals Station

Comments:

- **Support for vision and goals**
- **Support for Campus as Eco-demonstration & Resiliency Hub**
- **Kiosks:** Support for multi-functional structure that can serve:
 - Bathrooms & water-bottle filling station
 - Visitor bureau & space for rotating nonprofits
 - Interpretive Info, area amenities & cultural signage
 - Support farmers markets, visitors, YYFAP, residents, biz district
- **Like idea of integrating indigenous artisans and forms into a solar canopy structure**
- **Include Interpretive Signage:** natural resources, trails, emergency prep, and cultural history (both +/-) to help with healing & awareness
- **Concern over diesel fuel as backup power**

Open House Takeaways

Civic Campus Takeaways

- 1. Project Phasing:** Solar canopy structures over parking stalls that are likely to remain is a good idea and allow phasing for expansion of solar collection. North Edge has more locations with parking oriented in the east west direction to optimize solar gain using solar canopy.
- 2. Farmer's Market** can be disruptive to circulation - La De Da lane could be a better location for the 4th Avenue Street market.
- 3. Protection of Historic Artifacts:** There are artifacts from the indigenous people below grade. Projects with significant excavation could disturb. Archaeological documentation may be required.
- 4. Implementation:** Concern whether what is imagined in the plan will ever come to fruition.

Open House Takeaways

North Edge Takeaways

1. General acknowledgement of the role of 6th Avenue to be improved as a pedestrian connection between Highway 101 and Ocean View Drive.
2. **WWTP Canopy:** Large canopy alongside the head house of the WWTP was viewed as a way of hiding the facility.

Open House Takeaways

South East Edge Takeaways

1. Support for “Barn” Solar Canopy: General approval of the idea of the “barn” concept locating a canopy over the parking spaces along 4th Ave.
2. La De Da Lane is a critical connection across the site that can better organize the uses along it.
 - Linking North Edge (Church & Library) to Commons and 4th Street.
 - It can better support the activities along its length such as
 - i. Covered space for activities,
 - ii. Basketball court between Pavilion & Commons with adjusted grading
 - iii. Well-defined pedestrian connection to 6th Street.
 - A location for bathroom/toilet facilities and location for Kiosks
3. Candidate concepts should include an option for standalone solar canopies over the parking stalls between the Commons and City Hall

Open House Takeaways

Park Area

- 1. Stormwater Management:** Perceived to be underused because it is typically very wet. Interest in managing stormwater to protect the green space from oversaturation of water.
- 2. Passive Activities:** Interest in developing the green space for passive activities.
- 3. Amphitheater** in the green space has been talked about but folks acknowledged that the “barn” located along La De Da Lane might be a better place to consolidate built improvements.

Discussion

What is an Energy Resilience Project?

Oregon Department of Energy definition:

....includes using one or more renewable energy systems to support the energy resilience of essential structures or facilities that serve the public.

But resilience is more
than that....

**Resilience doesn't just mean
emergency planning.**

**Resilience comes from the
sustainability, economic vitality, and
health of our community.**

Implementation

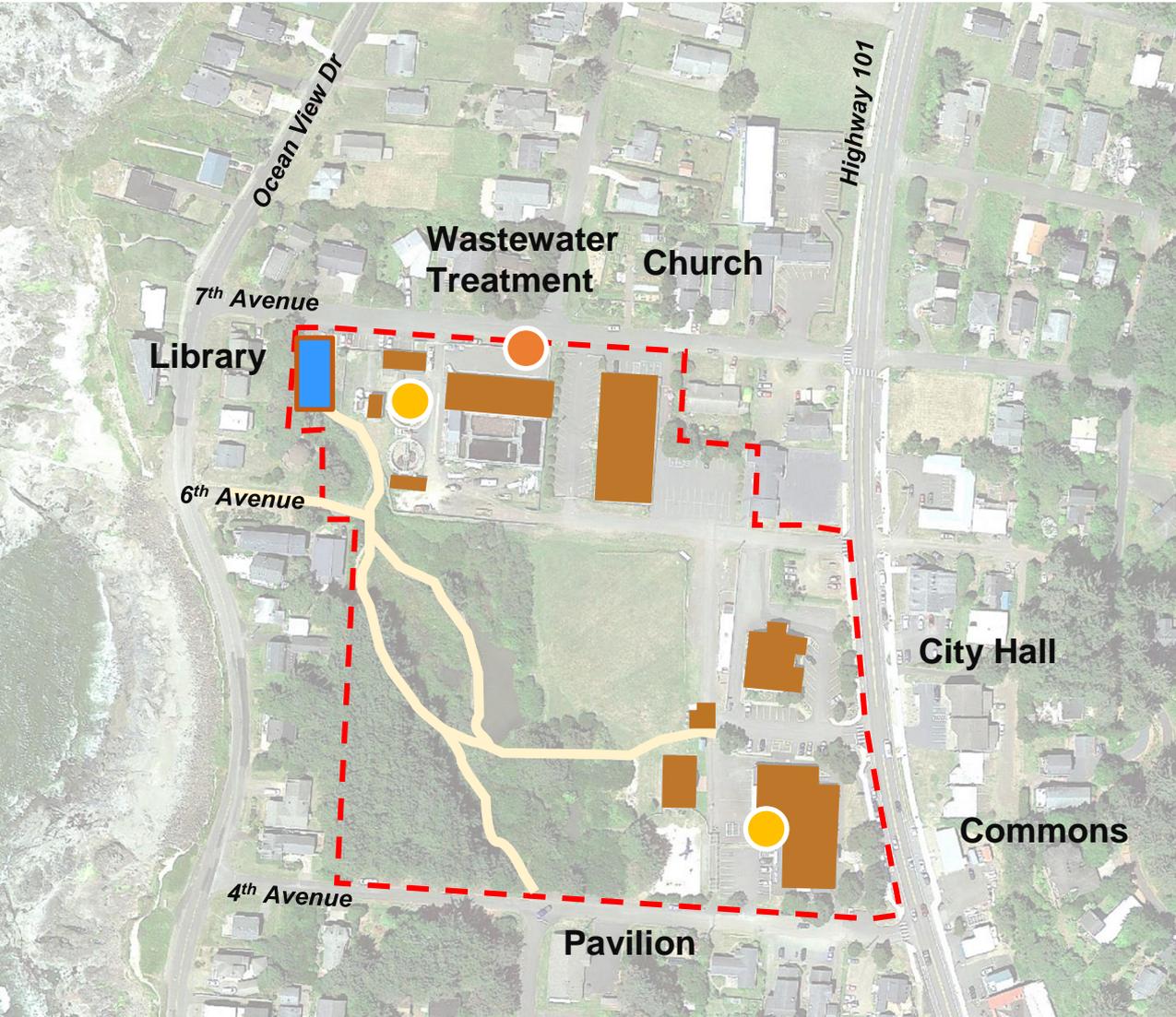
Priority Project

Sequencing of Other Priority Projects

Creating the Greatest Potential for Success.

Assessment of Facilities

Existing Conditions



- Library
- Wastewater Treatment Plant
- City Hall
- The Yachats Commons
- Pavilion
- Presbyterian Church

-  Mobile Generators
-  Planned Photovoltaic
-  Emergency Power Generators

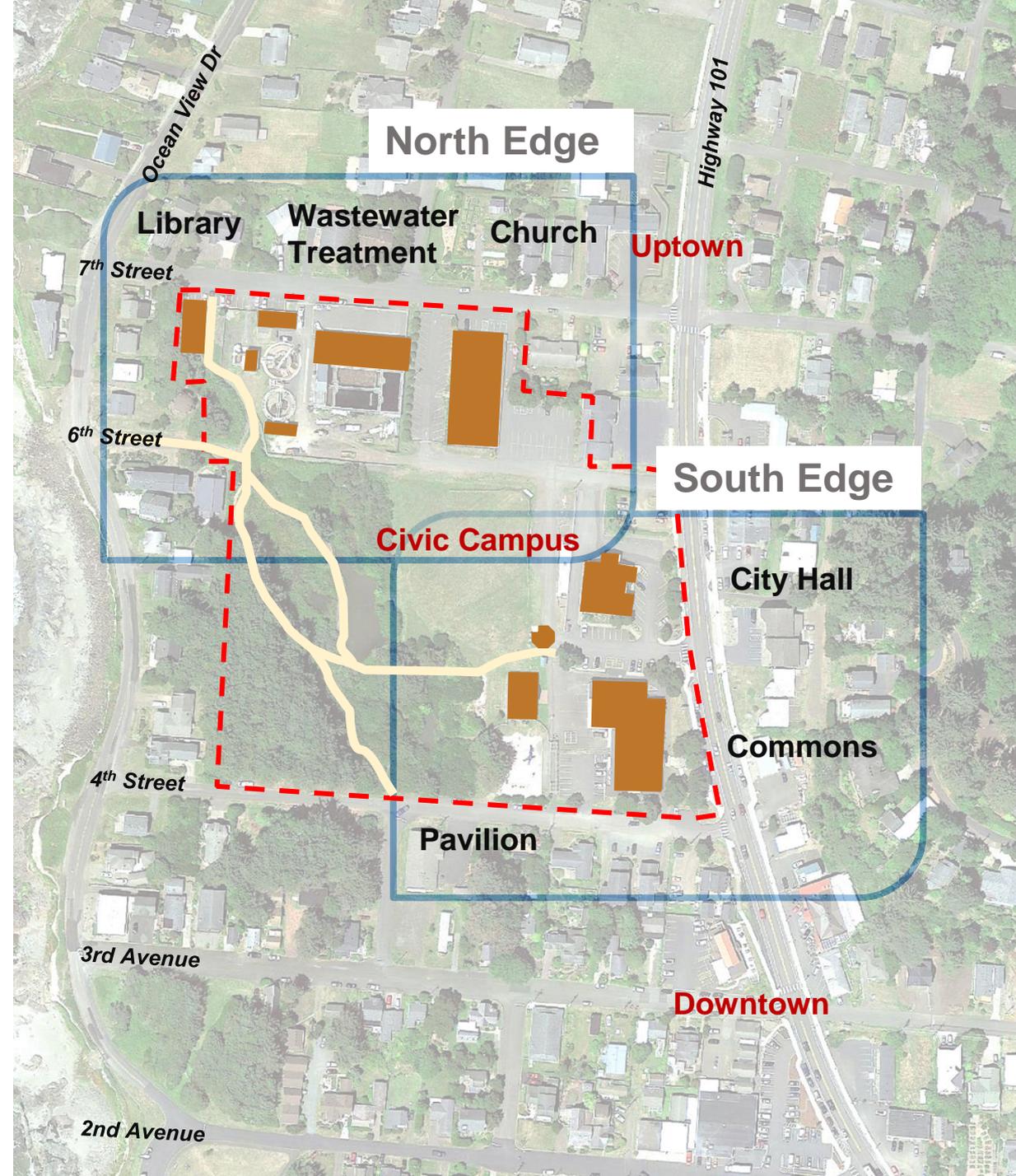
Assessment of Edges

Uptown: North Edge

Edge of residential area with community library and public works department.

Downtown: South Edge

Edge of Commercial Area with City Administration, Childcare, Community Events Spaces.



NORTH EDGE CIVIC CAMPUS | Wastewater Plant, Library & Church ENERGY USE & GENERATION POTENTIAL

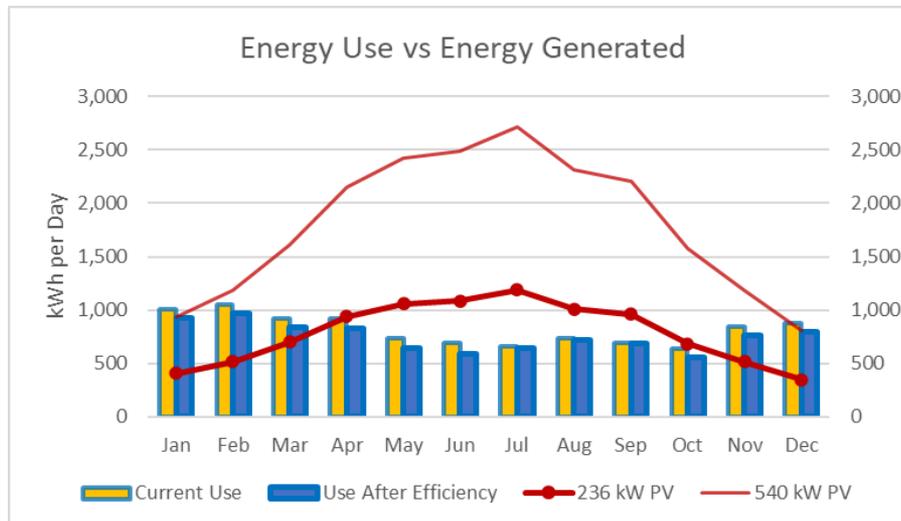
RENEWABLE ENERGY (SOLAR)

- 236 KW PV = NET ZERO ENERGY (ANNUAL)
 - 11,800 SF OF PANEL AREA
 - POWERS 44% OF ALL FACILITIES IN WINTER, OR
 - 100% OF CHURCH/LIBRARY & 22% OF WWTP IN WINTER
- 540 KW PV = NET ZERO ENERGY (JAN)
 - 27,000 SF OF PANEL AREA (12,600 SF AVAILABLE)
 - POWERS ALL FACILITIES
 - 350,000 KWH PER YEAR SURPLUS



Potential Photovoltaic Panel Locations

Library	200 sf
Wastewater Treatment	7,600 sf
Church Parking	4,800 sf
Ball Field Edge	6,800 sf
Commons Parking	5,700 sf



SE EDGE CIVIC CAMPUS – COMMONS & CITY HALL ENERGY USE & GENERATION POTENTIAL

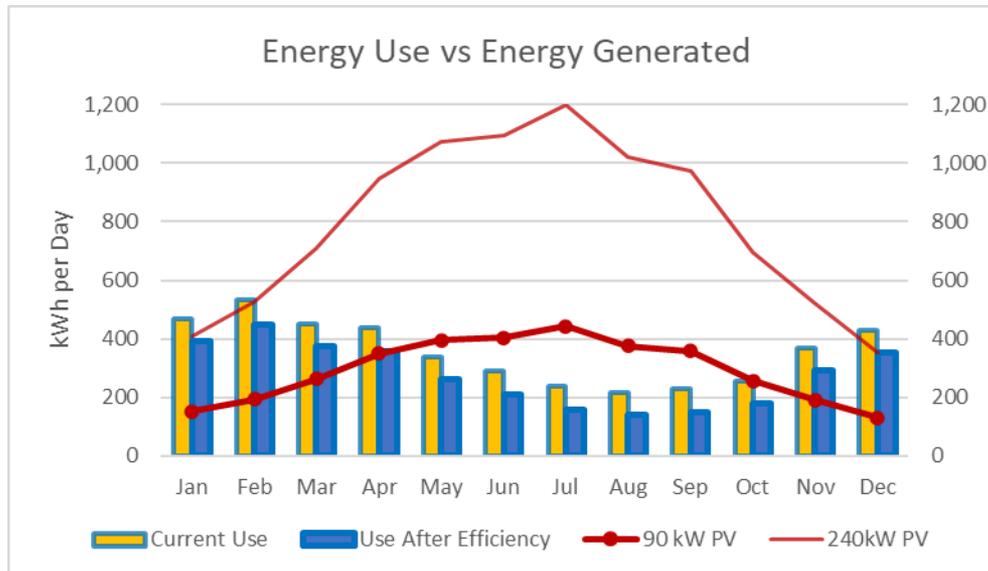
RENEWABLE ENERGY (SOLAR)

- 90 KW PV = NET ZERO ENERGY (ANNUAL)
 - 4,500 SF OF PANEL AREA
 - POWERS 37% OF BOTH BUILDINGS IN WINTER, OR
 - 60% OF COMMONS & 0% OF CITY HALL IN WINTER
- 240 KW PV = NET ZERO ENERGY (DEC)
 - 12,000 SF OF PANEL AREA (14,500 SF AVAILABLE)
 - POWERS BOTH BUILDINGS
 - 176,000 KWH PER YEAR SURPLUS



Potential Photovoltaic Panel Locations

Library	200 sf
Wastewater Treatment	7,600 sf
Church Parking	4,800 sf
Ball Field Edge	8,800 sf
Commons Parking	5,700 sf



Rationale

North Edge

Emergency Generation
+ Inverter

North Edge
Considerations

- Power Generation
- Public Works
- Library

Focusing on the SE Edge
for the \$1,000,000 grant
because it enhances
resilience where it is
needed now.

SE Edge

Emergency Generation
+ Inverter

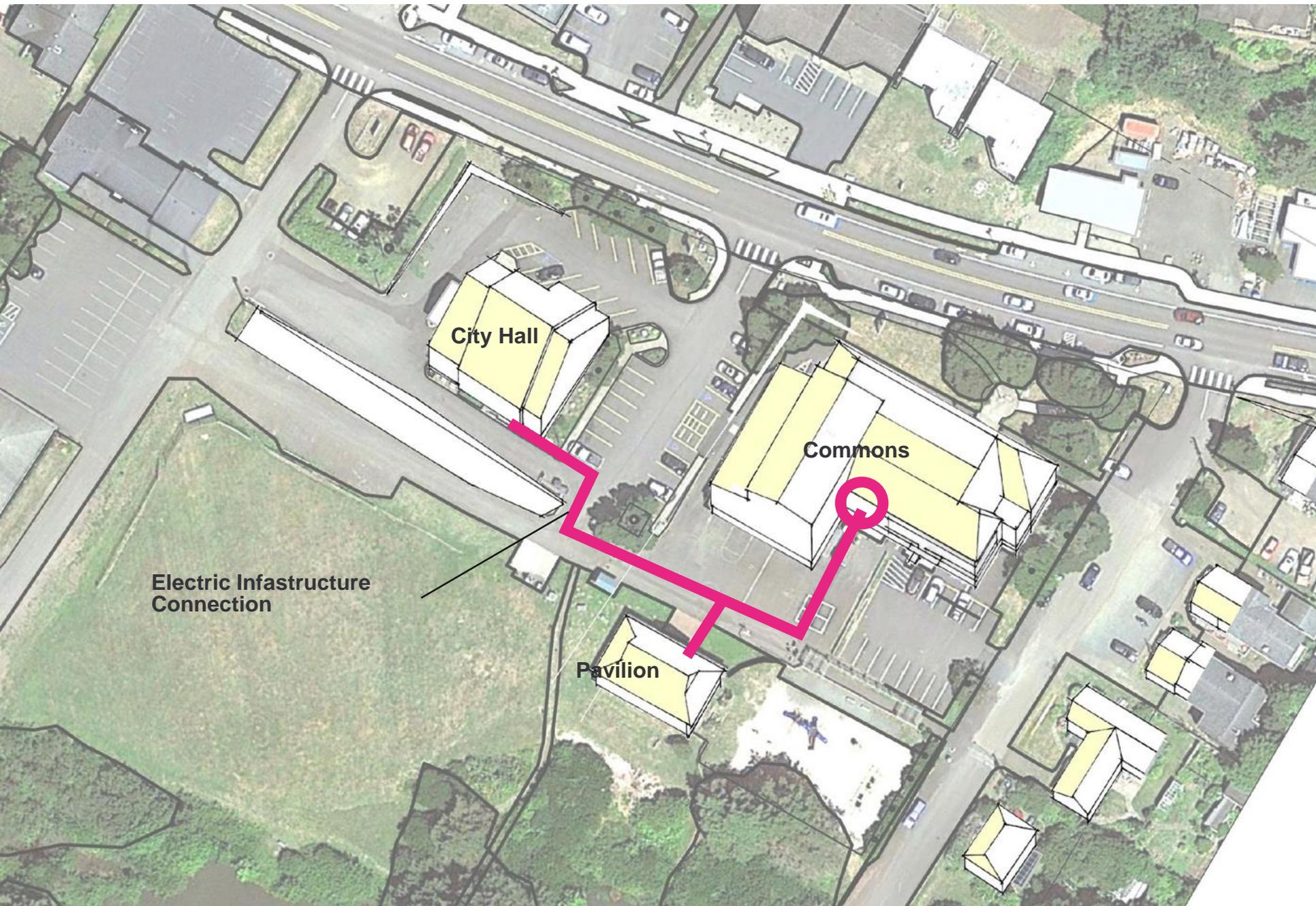
SE Edge
Considerations.

- Higher Ground
- Social / Cultural
Center
- Government
Center

Existing Southeast Edge



Option 1: Base Case



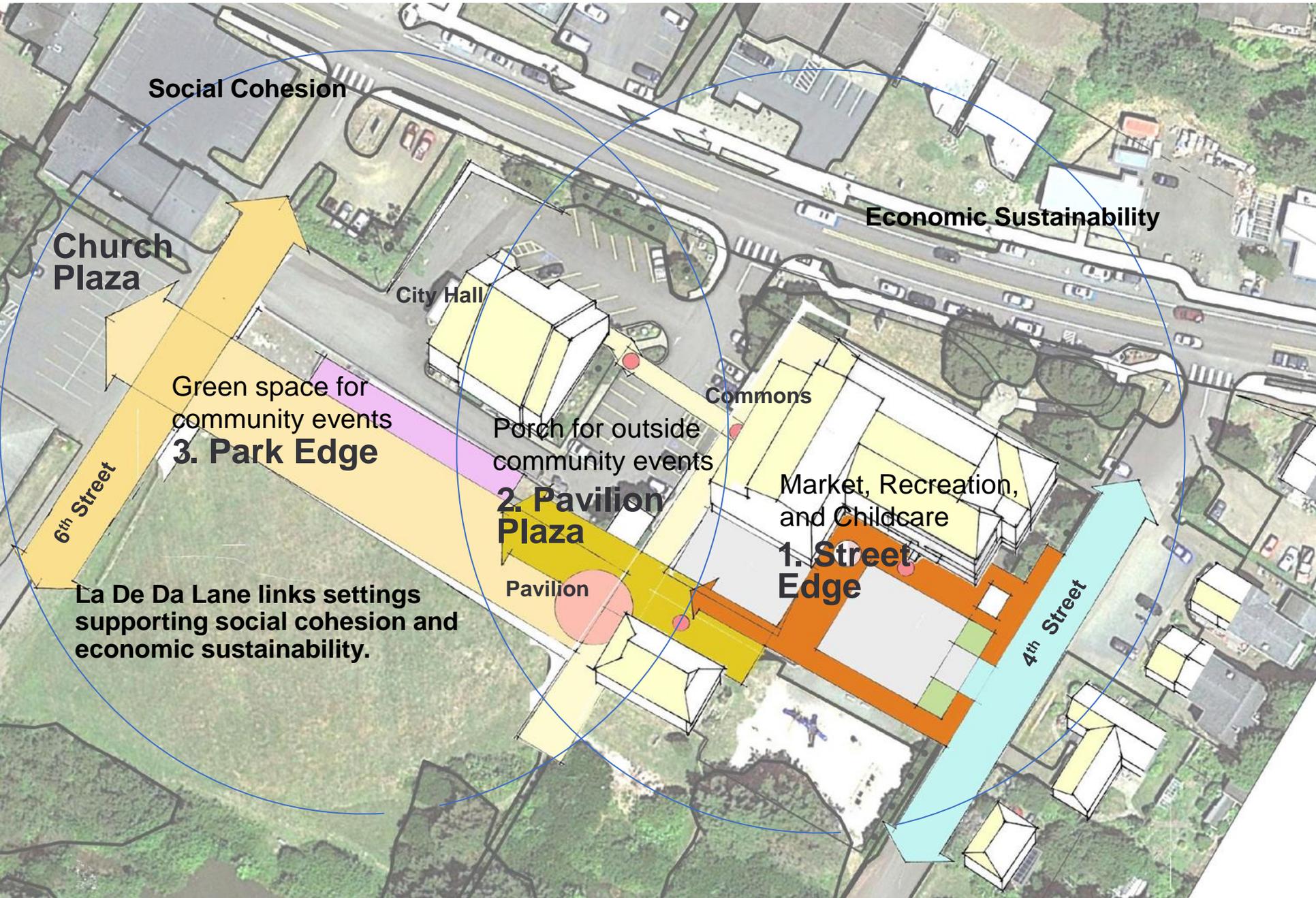
City Hall

Commons

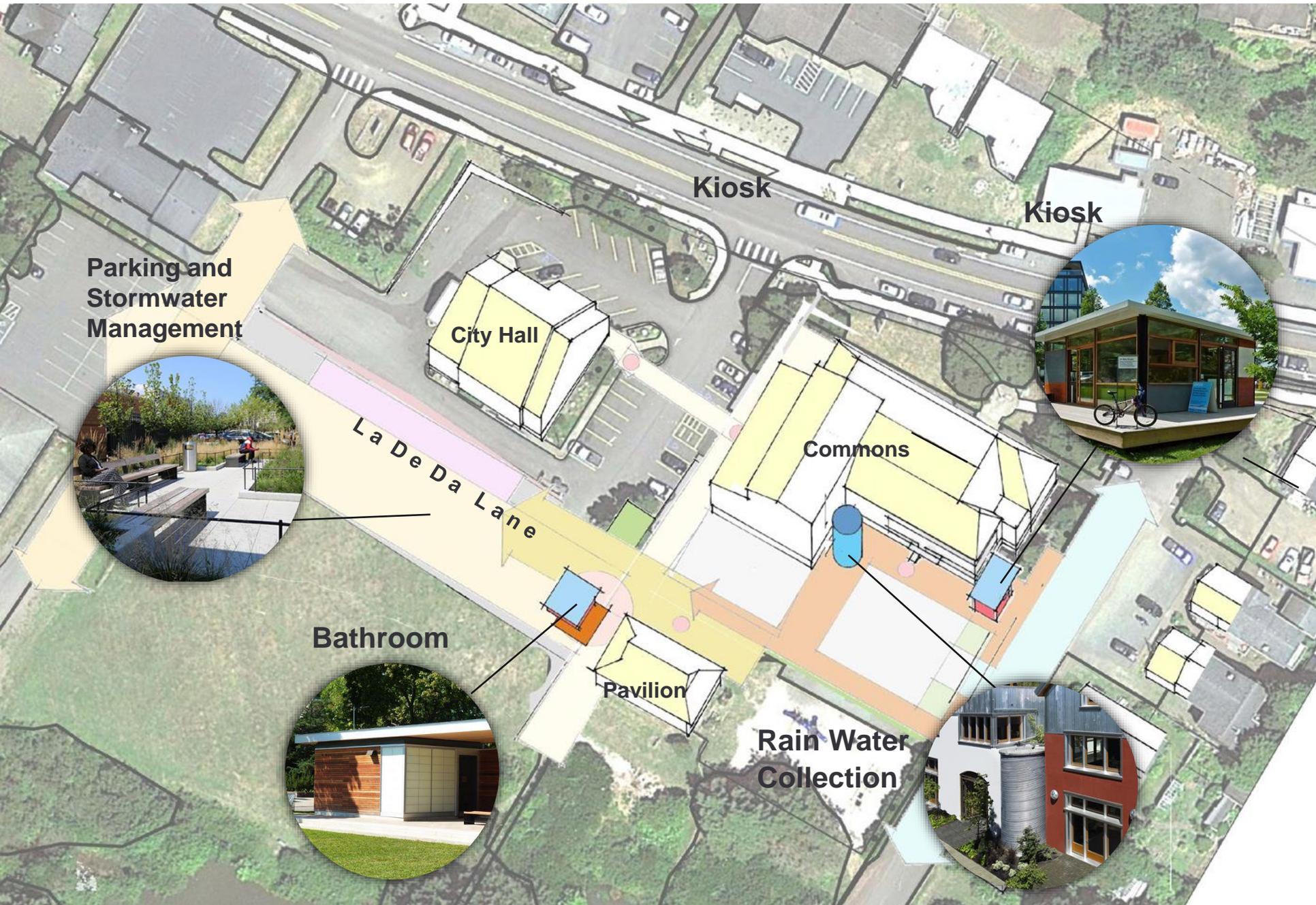
Pavilion

Electric Infrastructure
Connection

Using Placemaking to connect activities across the Civic Campus



Potential Leveraged Site Improvement Opportunities



Parking and Stormwater Management

Kiosk

Kiosk

City Hall

La De Da Lane

Commons

Bathroom

Pavilion

Rain Water Collection

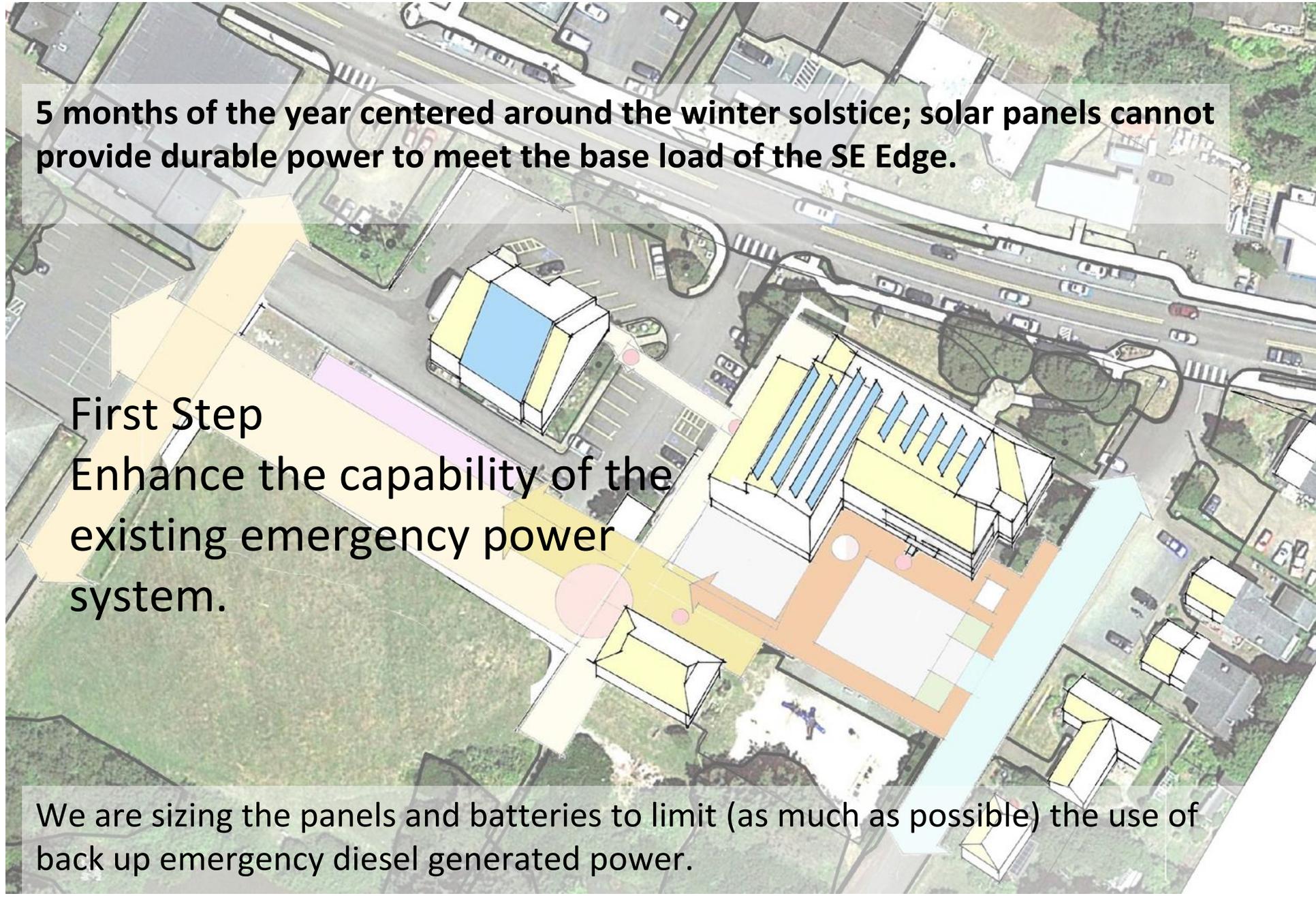


Provide flexibility to adapt to a variety of hazard events.

5 months of the year centered around the winter solstice; solar panels cannot provide durable power to meet the base load of the SE Edge.

First Step
Enhance the capability of the existing emergency power system.

We are sizing the panels and batteries to limit (as much as possible) the use of back up emergency diesel generated power.



Planning for the Civic Campus to be a micro grid in the future.

Benefits of these connected buildings:

Net metering where 100% of the annual power is supplied by the PV panels.

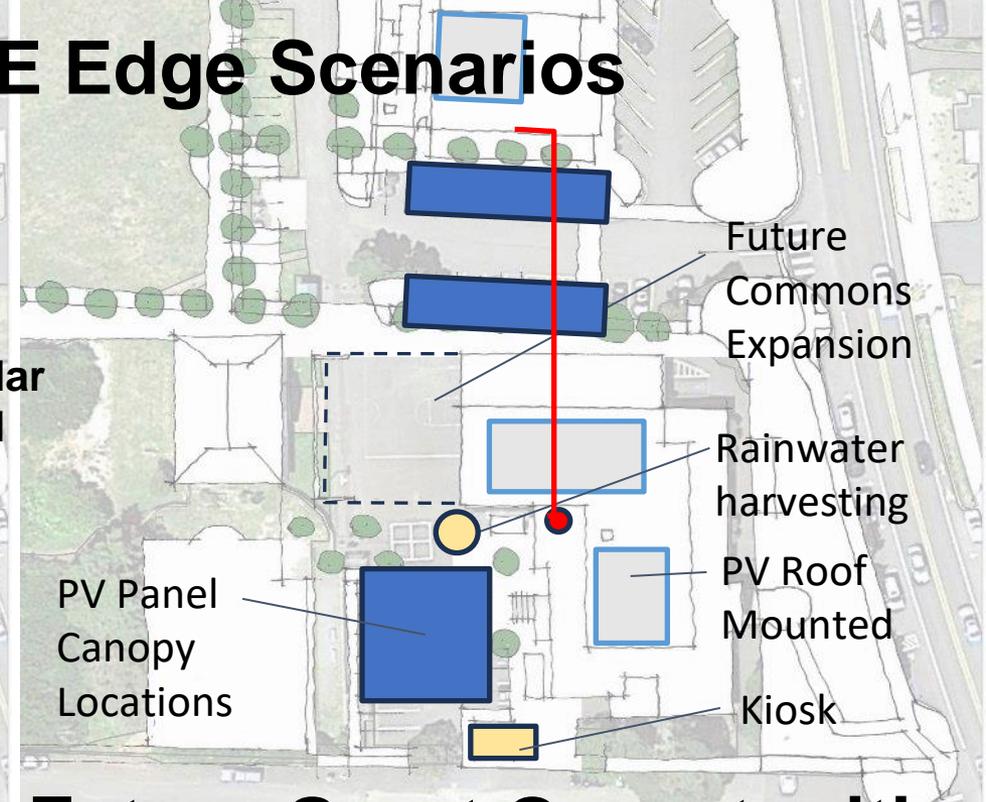
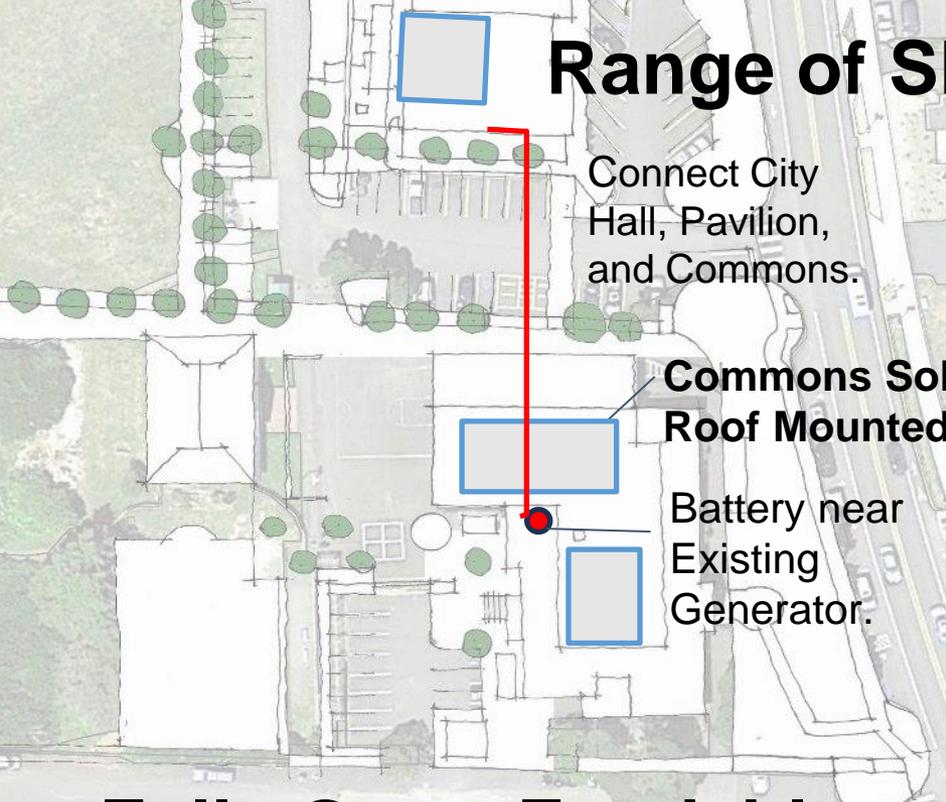
Reduction in the need for Diesel Power Generation so that fuel may be used for generators that provide emergency power for **potable water and wastewater pump stations.**

Serve the 5 months when solar power generation is at its lowest.

Become a micro grid in the future.....



Range of SE Edge Scenarios



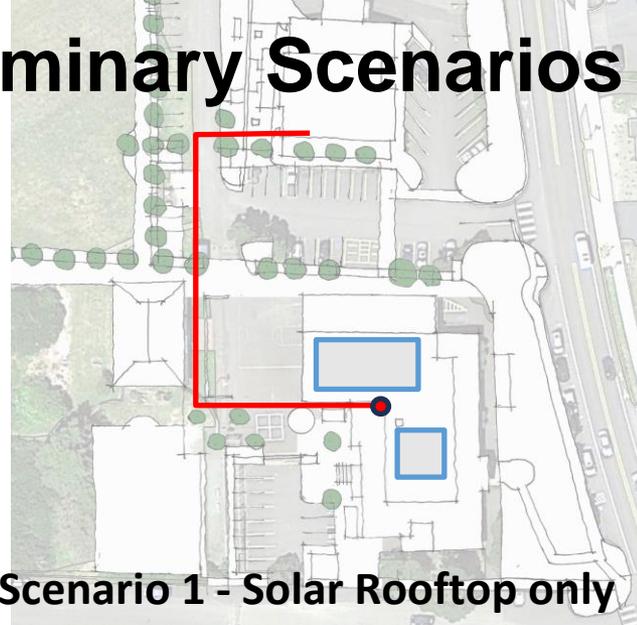
Fully Grant Fundable

1. Funded by subsequent \$1,000,000 ODOE Grant.
2. Managing load during an event.
3. Reduce power purchase from CLPUD by 60%.
4. Power in extended winter outage will require diesel generator support
5. Energy improvements improve option performance by reducing building use by 25 to 30%.

Future Grant Opportunities

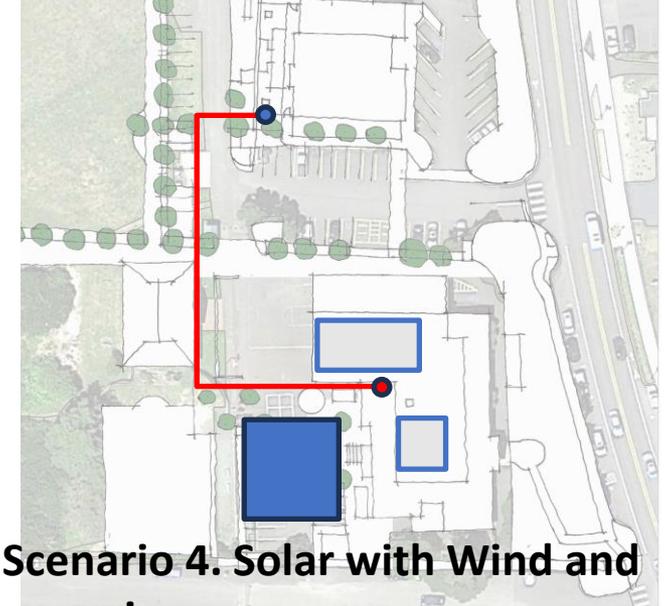
1. Increased power availability during low solar power generation periods.
2. Reduce power purchase from CLPUD by 100%.
3. Other Planned Improvements.
 - a. Rainwater Collection
 - b. Kiosk with bathroom and tourism information.
 - c. Commons Expansion

Preliminary Scenarios Studies



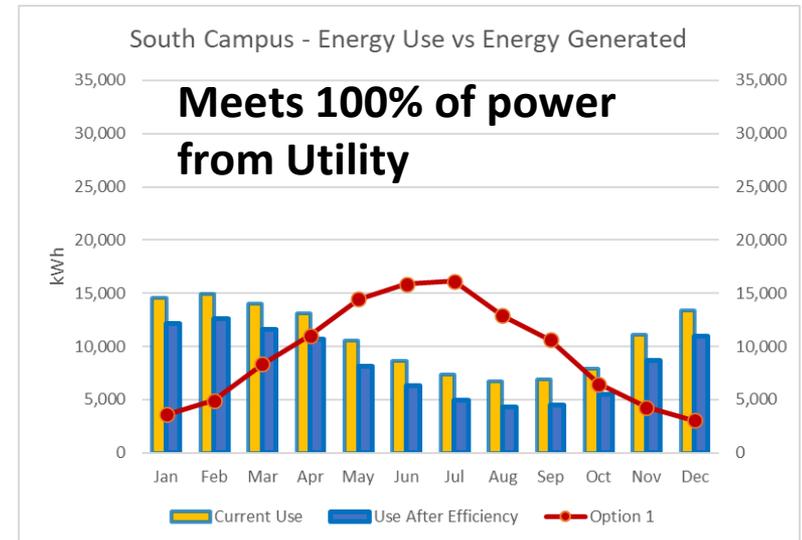
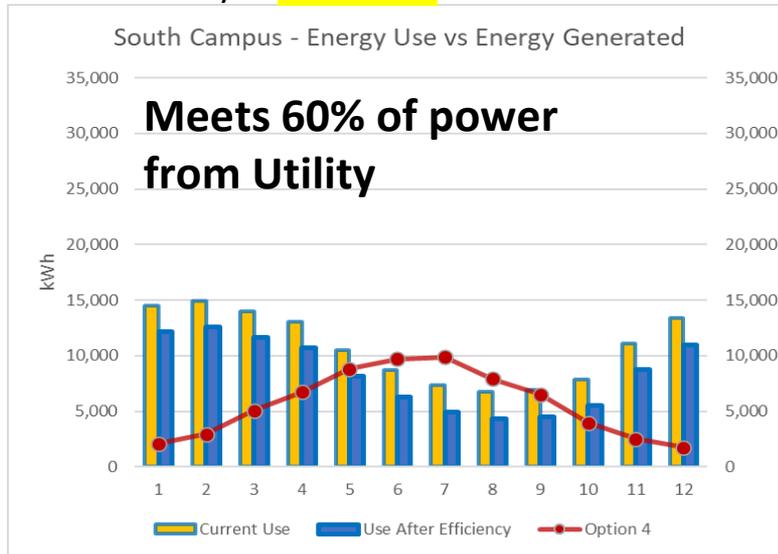
Scenario 1 - Solar Rooftop only

	kW	kWh	\$
PV	65.2	68,199	163,000
Wind			
Battery		105	TBD



Scenario 4. Solar with Wind and canopies

	kW	kWh	\$
PV	104.4	109,202	261,000
Wind	5	1,915	25,000
Battery		105	TBD



Scenarios for to Balance Load and Production

Scenarios	Grant Funded		Not Grant Funded	Outcomes		Back Up Fuel
	Solar Installation	Wind Installation	Required Site Improvements	Expands Social Economic Benefit	Energy Needs met	
1 - Solar Rooftop only	\$\$	0	\$\$ (roof upgrade)	no	no	\$\$\$\$
4 - Solar Rooftop (with Solar Canopies)	\$\$\$\$	0	\$\$\$ (Sitework)	✓ (covered area for public use: events, play or parking)	✓	\$

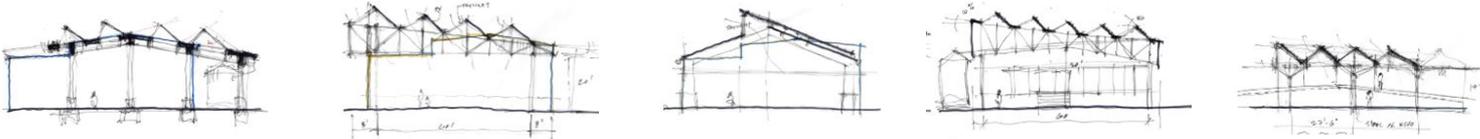
Give City the flexibility to manage loads to supply power to important activities using other fuel services.

Scenario 4 does provide needed flexibility.

Candidate Options for Scenario 4

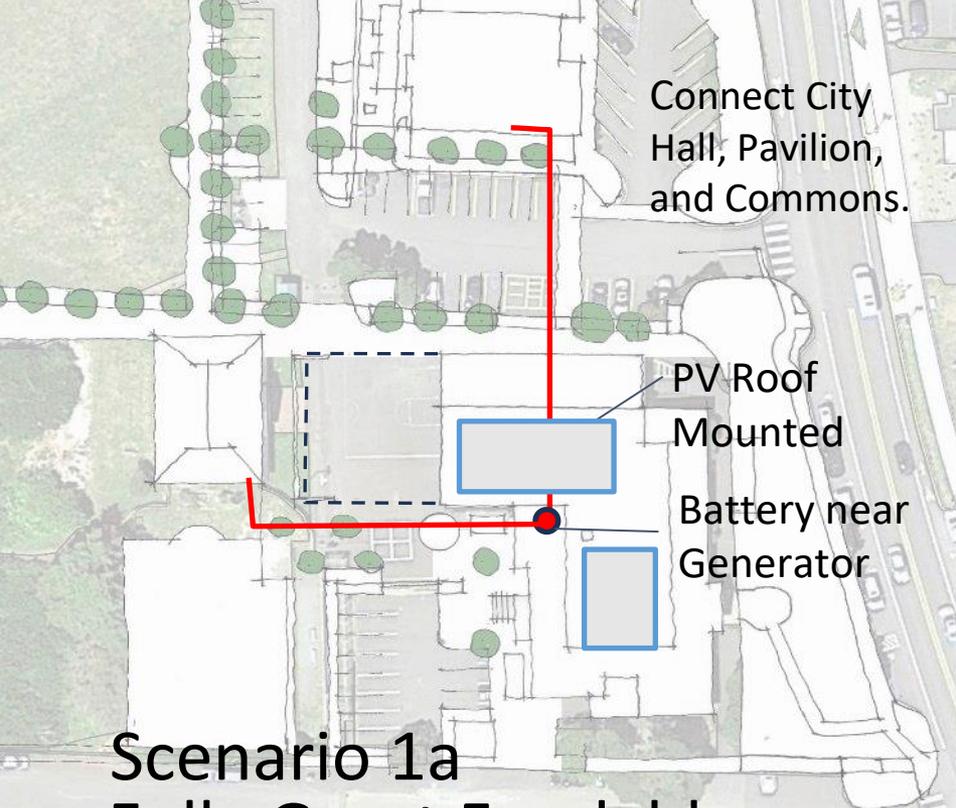


Benefit	1. Simple Porch	2. Big Porch	3. Barn Metal Prefabricated	4. Barn Mass Timber	5. Pergola
Maintenance	Excellent	Excellent	Poor	Good	Good
Cultural	***	****	****	****	*
Economic	****	****	****	****	**
Social	***	****	****	****	**
Resilience	**	***	****	****	**
Recreation	**	***	****	****	***



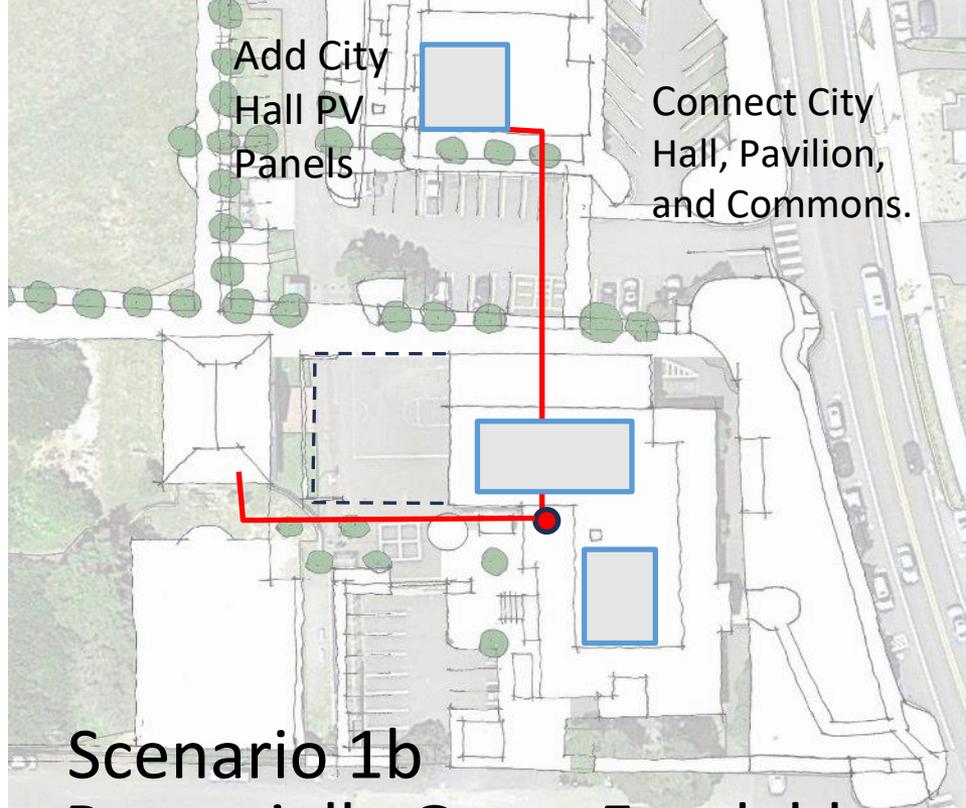
What is Priority Project

1. **A \$1,000,000 project.**
2. Has a **high degree of resilience** to be competitive with other projects applicants (supporting social and economic sustainability).
3. A **strategic part of the City-wide Resilience Plan.**
4. **Minimize cost to City** in project implementation.
5. **Have a partner investor** (such as City-County-Federal or private partner).
6. Can be prepared for the next application deadline, February 2024 .



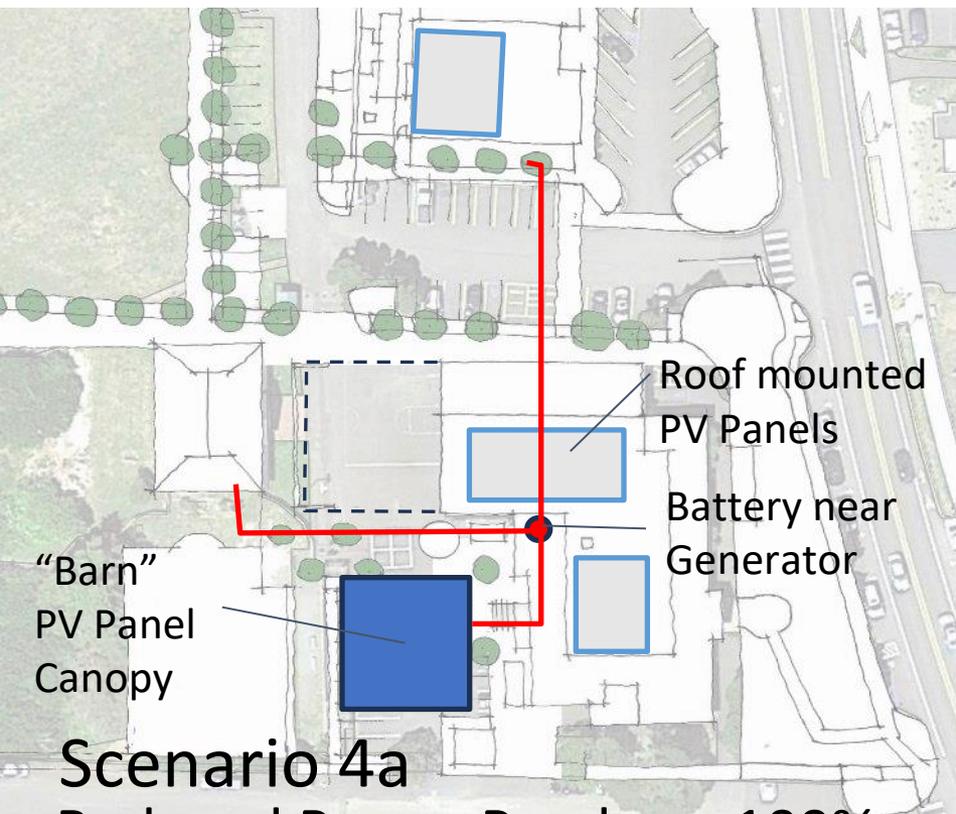
Scenario 1a Fully Grant Fundable

1. Funded by subsequent \$1,000,000 ODOE Grant.
2. Managing load during an event.
3. Reduce power purchase from CLPUD by 51%.
4. Power in extended winter outage will require diesel generator support
5. Energy improvements improve option performance by reducing building use by 21%.

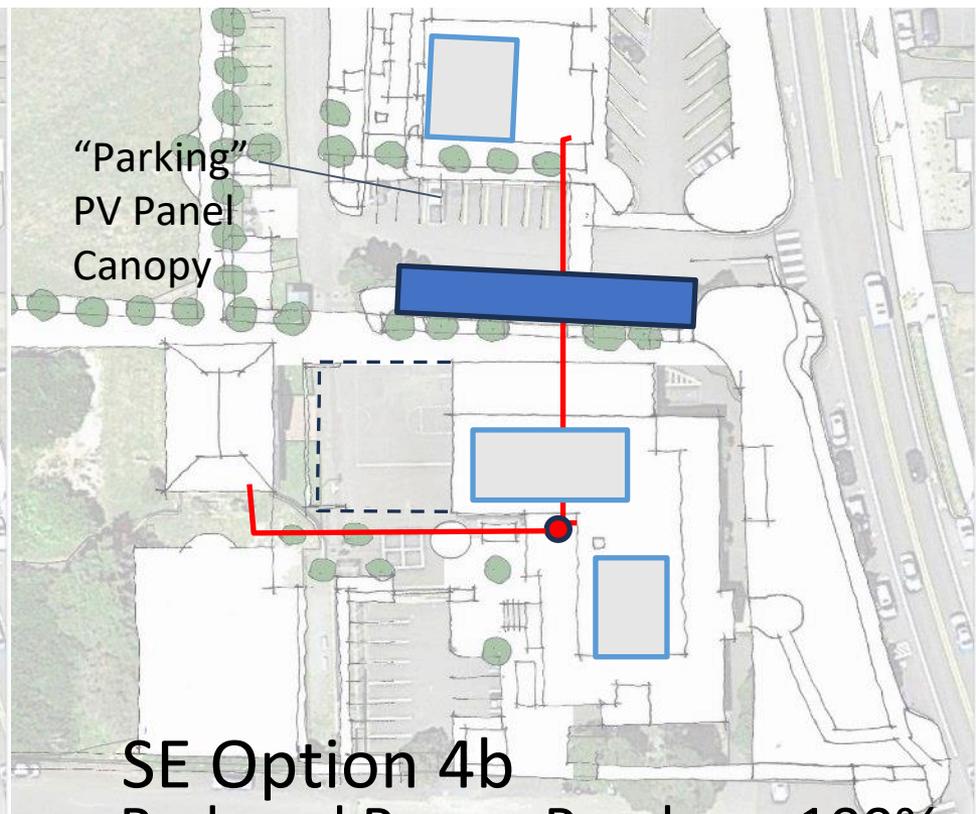


Scenario 1b Potentially Grant Fundable

1. Funded by subsequent \$1,000,000 ODOE Grant.
2. Managing load during an event.
3. Reduce power purchase from CLPUD by 78%.
4. Power in extended winter outage will require diesel generator support
5. Energy improvements improve option performance by reducing building use by 21%



1. Managing load during an event.
2. Reduce power purchase from CLPUD by 100%.
3. Power in extended winter outage will require less diesel generator support
4. Energy improvements improve option performance by reducing building use by 21%.



1. Managing load during an event.
2. Reduce power purchase from CLPUD by 100%.
3. Power in extended winter outage will less require diesel generator support
4. Energy improvements improve option performance by reducing building use by 21%

What is Priority Project



Option	Leveraged Projects	A. Roof Option (1b)	B. Barn Option	C. Parking Solar Canopy
Program	Water Collection, Filtration, and Distribution with toilet and kiosk facilities.	Electric Infrastructure (\$390,000) with roof mounted solar panels on City Hall and Commons building	Electric Infrastructure (\$390,000) with a freestanding barn to hold up the solar panels.	Electric Infrastructure (\$390,000) with 1 or 2 freestanding canopies with solar panels installed.
Economic Social	Yes	Mainly Power	Yes	Mainly Power
Grant Funded	TBD	\$850,000	\$1,000,000	\$1,000,000
City/Partner Budget	TBD	\$148,000	\$903,000	\$345,000
Project Budget	TBD	\$998,000	\$1,903,000	\$1,345,000

PROPOSED PROJECT 1

A. Option 1b Rooftop Solar on Commons & City Hall



\$998,500 (incl. Foundational Electrical Infrastructure)

PROPOSED PROJECT 2 OPTIONS

B. "Barn" Solar Canopy



\$1,511,960
(Adds amenity space)

C. Parking Solar Canopy



\$954,000

OR

PROJECT 1

Feb 2024

Feb 2025

Prepare Grant

Design & Construction

78% of Power Need Provided

PROJECT 2

Find a Partner & Prepare Grant Application

Design & Construction

100% of Power Need Provided



DOE Construction Grant Application



Design & Construction

Leverage Other Projects

- Kiosk/Toilets/Shower/Water filling station
- Cistern for Water Collection & Treatment
- Stormwater Management
- Demonstration of Wind Power

Proposed Sequencing of Improvements

Greatest Potential for Success

Partnerships: Through the identification of priority projects in the resilience plan, the City and its partners may imagine projects and secure grant funding for those projects through financing agreements.

What partnerships are most viable in the near term or can be cultivated in the future to share costs of implementation?

Greatest Potential for Success

Financing Agreements: Financing agreements would establish the guidelines for collaborative action between partners that derive shared outcomes and identify each partner's role in designing, financing, constructing, and operating facilities. This agreement would establish the lead entity for delivering the project and who would maintain the facilities.

What policy, resolution, or agreements are needed to support sequential grant funding and project Implementation in the Civic Campus?

Greatest Potential for Success

Long Term Stewardship

Through finance agreement, assign responsibility to an entity to coordinate successful development and long-term operations.

Who will be responsible for recurring training of the community on how to use the new facilities before and after a hazard event?

Who would be assigned the role of long-term operations, of the electrical infrastructure?



Resilient Civic Campus Project

Draft Resiliency Plan & Selection of
a Priority Renewable Energy Project

ONLINE OPEN HOUSE

December 14, 2023 | 6-8 PM

Zoom*: <https://us02web.zoom.us/j/82816410769> | Meeting ID: 828 1641 0769

Join us to give input on a draft “Civic Campus Resiliency Plan”
and help pick the top priority project for an upcoming Oregon
Department of Energy \$1,000,000 construction grant.

This Yachats Civic Campus renewable energy and resiliency project is intended to help with hazard
and emergency response plus has potential to support community activities and amenities.

RSVP & share your needs & priorities in the survey now! Survey Deadline 12/10/23

RSVP & SURVEY: bit.ly/CivicCampusSurvey-RSVP

View project info, presentations & more: www.yachatsoregon.org/ODOEnergygrant

**Meeting Accommodation In Person Option:*

*If you have challenges using Zoom and it would help you participate in the meeting, community members
can come to the Commons Multipurpose room where the zoom meeting will also be live streamed.*

Open House 2.

December 14, 2023,
6:00pm to 8:00pm

Online Open House Overview



1 YACHATS RESILIENT CIVIC CAMPUS PLAN

*Community Renewable Energy & Resiliency Planning Project
Made possible with grant funding from the Oregon Department of Energy*

PRELIMINARY DRAFT | DECEMBER 2023

Prepared for the City of Yachats by:

GREEN URBAN DESIGN | FORAGE DESIGN + PLANNING | SOLARC | PARADIGM ENGINEERING



- Introduce Preliminary Draft of the Resiliency Plan
- Present Top Project Options & Rationale for Recommendations
- Affirm Criteria for Selecting
- Gather input on Priority Project Selections for first and second funding

Open House Draft Agenda

Welcome & Introduction

5 min

Overview of the Draft Plan

20 min

What we've heard from the Community
& how this is being incorporated into the
Yachats Renewable & Resilient Civic Campus Plan

Survey and Discussion

15 min

Priority Project Recommendations

20

min

Proposed Phasing of Priority Projects

Survey and Discussion

20 min

Examples of how the community input has informed the Plan

Sample of what we heard	How Integrated into Plan Options
Integrate wind	Wind turbine analysis & proposed future project
Bathrooms are needed	Kiosk with restrooms & tourism satellite office
Campus as Eco-Demonstration Hub	Interpretive signage & education plan and consideration of features beyond energy
Plan for Drinking Water	Cistern for water capture with filtration?
Ball field is underutilized due to oversaturation of rain	Bioswales & other stormwater design improvements
Back-up generators need fuel storage	Recommendations from community to locate at the Fire Station
South of Bridge Residents need support	Pontoon bridges, future solar for water tank and caches

Draft Q's for Open House

- 1. Based on the engineering, resiliency, and budget constraints, would you agree that Option 1b (i.e. “Rooftop solar on Commons & City Hall”) is the priority project to recommend for a first project in the next 2024 ODOE Construction Grant?**
 - a. Yes
 - b. No

- 2. If yes, looking ahead to additional planning and construction grants, which should be the next project?**
 - a. Solar Canopy “Barn” - (requires additional funding)
 - b. Parking Canopy
 - c. other potential leveraged projects (e.g library)

Draft Q's for Open House

3. If there were add-ons that could be funded in a future grant, which are biggest priorities? Pick top 2.

- a. Demonstration Wind turbine**
- b. Cisterns**
- c. Bathrooms**
- d. Visitor Center**
- e. Signage - Solar/Sustainability/Resiliency, Wayfinding, Cultural history**

Draft Q's for Open House

4. Who should take on stewardship for this multi-year project?

- a. City**
- b. Current Stakeholder Advisory Group**
- c. City Commission**
- d. Special Project Committee**
- e. New nonprofit**

What other questions should we ask?

Draft Q's for Open House

4. If we needed additional partners were required for funding projects, what might be entities we should consider and for which project?

- a) Barn**
- b) Library**
- c) EV Charging**
- d) Wayfinding & Signage**
- e) Bathroom Kiosk**
- f) Wind Turbines**
- g) Cistern & Stormwater**

How Survey Validated or Informed our Criteria

Survey: Vision, Priorities & Goals

48 responses



Section 1 of 4

Yachats Civic Campus Survey & Event RSVP

Through a recent planning grant from the Oregon Department of Energy (ODOE), the City is working to add renewable energy and increase emergency preparedness. This ODOE energy grant gives us the chance to develop a plan for the Civic Campus and to pursue a community-selected priority project for up to \$1 million in construction. Learn more here: www.yachatsoregon.org/ODOEnergygrant

PROJECT GOALS: To establish improvements that include renewable power and energy storage that support social and economic growth as well as recovery from hazard events.

To ensure the community has a meaningful voice about needs and goals, priorities, and projects, we're hosting three large community-wide events.

- **Public Workshop | Goals, Needs & Approach** | Thurs., October 19, 2023, 6-8 pm ([View Workshop Slides](#))
- **Open House 1 | Priorities Projects Forum** | Thurs., November 16, 2023, 6-8 pm
- **Open House 2 | Selection of Top Project & Draft Civic Campus Plan** | Thurs., Dec. 14, 2023, 6-8 pm

INPUT SURVEY & EVENT RSVP

Your RSVP and answers to a few short survey questions below are valuable to help us plan the project and prepare for events. Even if you can't attend, you can still give valuable input via this survey. The Resiliency

Support the Process

Asks of the Group:

- Share December 14th Open House Invite with your Network
- Encourage others to share their ideas, needs, and goals in the Survey
- Attend to the Open House!

Mark Your Calendars
Advisory Group #4, Meeting January 11, 2024

Thank You