Battery Energy Storage Systems at Weymouth

Current Action

- Award $6,176,521 contract to Siemens Industry, Inc. for the construction of battery energy storage systems (BESS) at the F. E. Weymouth plant

- Authorize increase of $300,000 to an agreement with Stantec Inc., for construction support for a new not-to-exceed total of $1,750,000
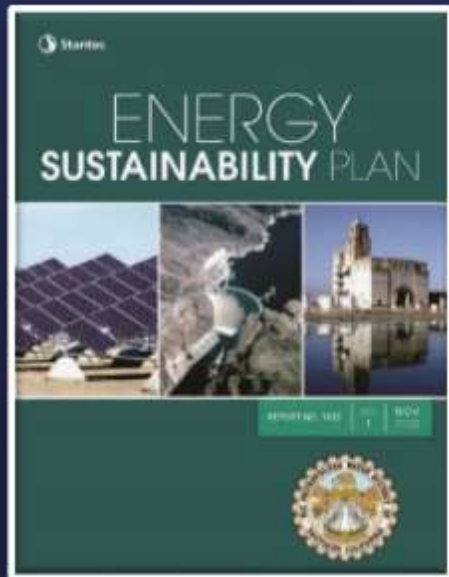
Distribution System

Weymouth BESS – Project Locations

2 MW Solar facility

Proposed BESS

Admin. Building

Proposed BESS

1 MW Solar facility

Background

Battery Energy Storage Systems at Weymouth

- Energy Sustainability Plan (2020)
  - Analysis of electricity needs & energy supply risk
  - Holistic multi-criteria assessment
- Key benefits of BESS to Metropolitan
  - Reduce energy cost and GHG emission
  - Increase operational flexibility and resiliency
- Support Climate Action Plan

Battery Energy Storage Systems at Weymouth
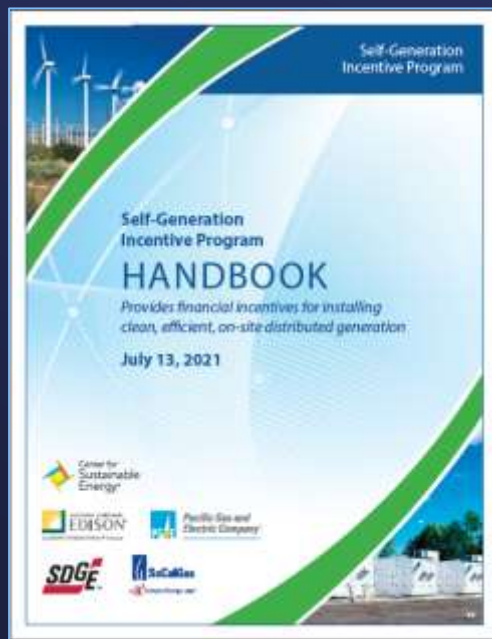
## Background (Cont.)

- Self-Generation Incentive Program (SGIP)
  - 4 applications submitted in May 2020 - $10M solicited
    - Jensen, Skinner & OC-88 confirmed in August 2020
    - Weymouth confirmed in May 2021
- Current project status
  - OC-88 cancelled
  - Skinner and Jensen in construction phase
  - Weymouth advertised and received bids

BESS Concept
Basis of Design

Battery Energy Storage Systems at Weymouth

- Battery paired with solar facilities on site
- Store excess solar energy for later use
- Peak load reduction
    - Energy arbitrage: charge when power is cheap and discharge when power is expensive
- GHG reduction
- Micro-grid configuration

SOURCE: State Journal research | State Journal
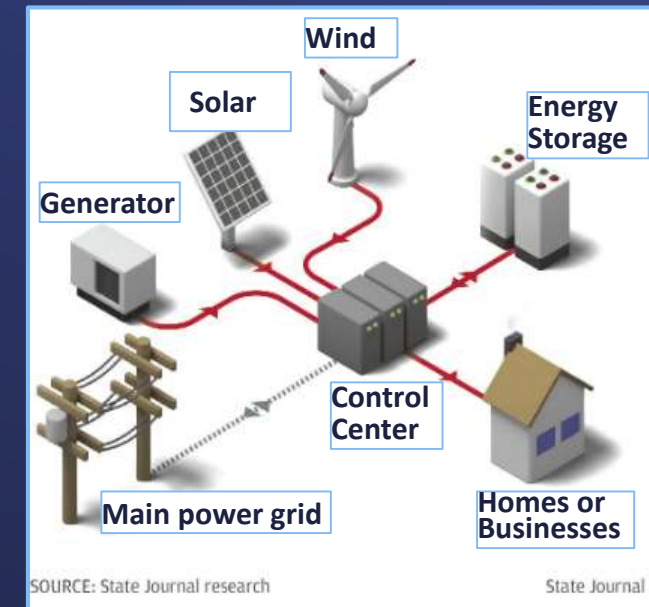
Alternatives Considered

- Single 1 MW/4000 kWh battery energy storage system at a centralized location
  - New unit substation needed

- Two 500 kW/2000 kWh systems adjacent to the two existing solar facilities – Selected alternative
  - Connect to existing unit substations
  - Provide redundancy and additional reliability & operational flexibility
  - Cost-effective

Battery Energy Storage Systems at Weymouth

Battery Energy Storage Systems at Weymouth

Contractor Scope

- Construction of equipment pads and sound walls
- Furnish and install
  - Battery energy storage systems and appurtenant equipment
  - Monitoring and control systems with microgrid capability
- Perform testing and commissioning per SCE and SGIP's requirements

Battery Energy Storage Systems at Weymouth

Metropolitan Scope

- SCADA programming
- Installation of network infrastructure for cyber security protection
- Construction management & inspection
- Environmental monitoring, contract administration & PM
- Testing, start-up & commissioning

Bid Results
Specifications No. 2014

Bids Received	April 19, 2022
No. of Bidders	3
Low Bidder	Siemens Industry, Inc.
Low Bid	$6,176,521
Range of Higher Bids	$8.8 M to $11.6 M
Engineer's estimate	$7.5 M
SBE Participation*	17%

*SBE (Small Business Enterprise) participation level set at 15%

Allocation of Budgeted Funds

Contract	
Siemens Industries, Inc.	$6,176,521
Metropolitan Labor	
Program mgmt. & contract administration	363,000
Force construction	46,000
Construction management/inspection	743,000
Submittal review, technical support & record drawings	391,000
Materials & Supplies	270,000
Professional Services	
Stantec Inc.	300,000
Environmental monitoring	45,000
Remaining Budget	695,479
Total *	$9,030,000

*Metropolitan will receive $2.125 M incentive to offset project cost
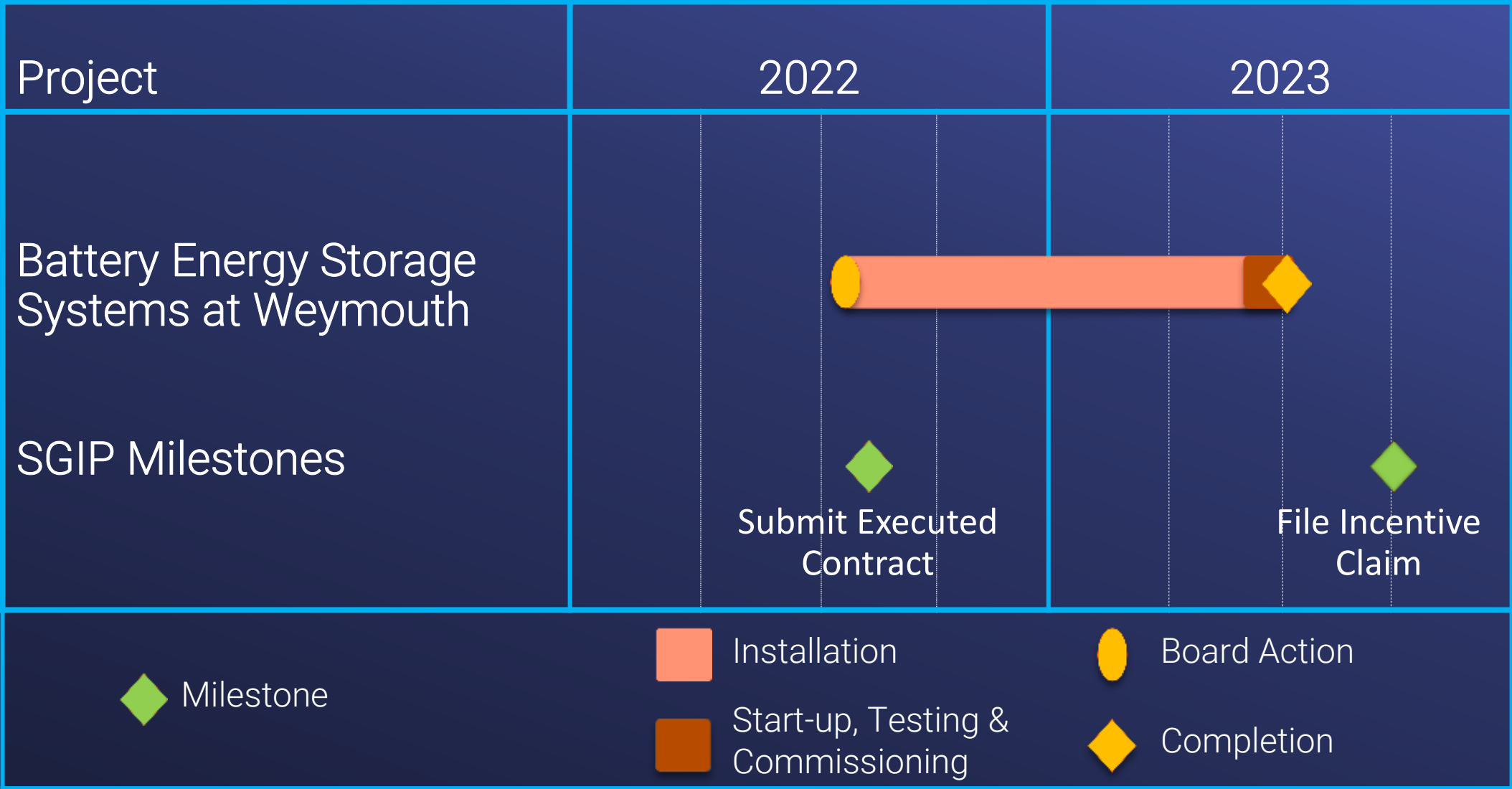
Board Options

- Option #1

  Adopt the CEQA determination that the proposed project was previously addressed in the certified 2022 Final PEIR, Findings, SOC, and MMRP, and that no further environmental analysis or documentation is required; and

  a) Award a $6,176,521 contract to Siemens Industry, Inc. to construct Battery Energy Storage System facilities at the Weymouth plant.

  b) Authorize an increase of $300,000 to agreement with Stantec Inc. for a new not-to-exceed total of $1,750,000, to provide technical support.

- Option #2

  - Do not proceed with the project at this time.

Staff Recommendation

- Option #1