

# **Integrated Community Energy Taskforce**

## **FVB Energy, Inc. Contract Tasks and Deliverables**

### **Task 1- Report on Best Practices for Integrating Energy-Related Requirements into Local Regulations and Programs**

#### 1. Existing Local Policies

Compile information on existing policy and program approaches in the region. Include information on legislation, regulations, local ordinances, and local policies and programs.

#### 2. National and International Policy Framework

Review legislative and regulatory frameworks from US and internationally. Identify the types of energy-related requirements (issues/considerations) that can be included in local program approaches.

#### 3. Issue Analysis

##### a. Permitting

Review/identify relevant zoning and permitting requirements including air permits and local, state and federal jurisdictions, utility interconnection, and street construction permits and rights of way, including franchise rights for distribution of thermal energy.

##### b. Development Requirements

Recommend a set of issues/approaches to address when adding new or modifying existing requirements affecting new real estate development, including implementing authority and legal restrictions.

##### c. Zoning and Building Codes

Provide information on approaches to zoning definitions and categories, building code enhancements to facilitate clean energy, thermal mapping and GIS methodologies to assess energy intensity and densities, interconnection requirements or incentives, and density targets.

- Key building code enhancements to facilitate use of clean energy.
- Use of thermal mapping and energy density assessment to plan district energy systems.
- Zoning strategies for encouraging mixed use development that provides the optimal loads and load densities for clean energy systems (as well as facilitates sustainability relative to transportation energy use).
- Strategies for encouraging or requiring interconnection to a clean energy system.

##### d. Siting

Evaluate/recommend preferred approaches for siting clean energy development, including eco-districts and clean energy districts/zones. Recommendations will address broad development planning issues, franchising issues, technology-specific siting issues.

#### 4. Report with Issues Analysis, Best Practice Examples, and Policy Framework Recommendations

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### **Task 2- Development of Cost Benefit Information and Business Case for Integrated Community Energy Solutions**

#### 1. Overview of Clean Energy Technology Options:

Provide an overview of key clean technology options, including a description, graphic illustrations, and example cases from the US and internationally. Address both retrofit of existing systems and development of new projects.

#### 2. Costs and Benefits:

- Provide a generalized overview of the costs and benefit of the clean energy options capital costs, operating costs and total costs under a specified set of load, facility size and operating cost parameter assumptions.
- Power-related benefits
  - Potential impact on peak electricity demand compared with business as usual
  - Power grid support benefits for grid-connected systems
  - Power supply reliability and power quality benefits for mission-critical facilities such as hospitals, research campuses or data centers
  - Energy and environment
  - Total primary energy consumption – local, indirect grid emissions, and combined
  - Greenhouse gas emissions – local, indirect grid emissions, and combined
  - Air pollution emissions – local, indirect grid emissions, and combined
  - Costs and benefits of additional pollution control

#### 3. Implementation Challenges:

Describe major challenges that can constrain the implementation of integrated community energy systems. Most fundamental, successful implementation requires phased and inter-related progress on securing a customer base; designing the system to serve the initial load, with capacity for future loads; securing permits; developing a plan for financing, ownership and operation; and securing financing.

#### 4. Ownership and Operation Models:

- Identify/describe the advantages and disadvantages of different ownership and operation models.
- Incorporate relevant case examples.

### **Schedule**

Kickoff - May

Interim Deliverables - July

Final Reports and Presentations - September