

**SARATOGA
TECHNOLOGY +
ENERGY
PARK**

NYSERDA • UALBANY • SEDC

***Master Plan
Executive Summary***

January 2004

NYSERDA



Prepared for
New York State
Energy Research and Development Authority

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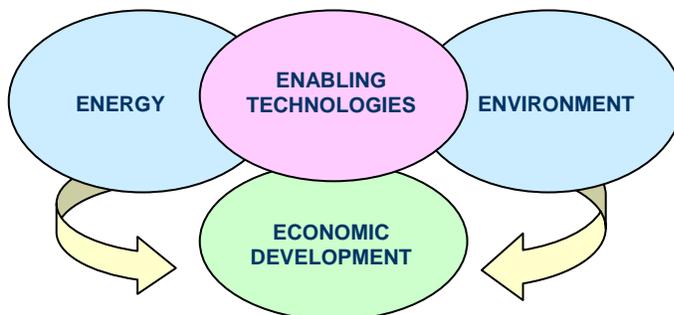
Saratoga Technology + Energy Park Master Plan Executive Summary January 2004

NYSERDA. As a public benefit corporation, the New York State Energy Research and Development Authority's mission is...*to use innovation and technology to solve some of New York's most difficult energy and environmental problems in ways that improve the State's economy.*

To that end, NYSERDA deploys and manages resources of more than \$219 million annually from a variety of sources, and operates programs ranging from energy efficiency to economic development. In R&D, NYSERDA supports projects to develop and demonstrate innovative energy technologies, products, and processes.

STEP. NYSERDA is undertaking development of its 280-acre property in Malta, New York, known as Saratoga Technology + Energy Park (STEP). As part of NYSERDA's mission activities in economic development, STEP will be the first technology park to focus on clean energy and related environmental technologies. The vision is:

*STEP (and the Capital Region) will become known internationally as a knowledge community centered on niches of expertise in clean **energy** and **environmental technologies**—including a focus on transformational and enabling technologies. By becoming known as one of a few business destinations-of-choice in the world for growing companies and products in these fields, STEP will be instrumental in enacting NYSERDA's **economic development** mission for the Capital Region and New York State.*



STEP Partners. NYSERDA's two primary partners for STEP are The University at Albany (primarily Albany Nanotech) and Saratoga Economic Development Corporation (SEDC). The Town of Malta also plays an important role in land use and infrastructure planning. Throughout the State of New York, various state agencies, universities, CAT centers, and incubators are intended to be resources or partners for marketing the State's energy and environment capabilities. Regional economic development organizations also are partners indirectly, in their marketing of the Capital Region.

Governance/Development Strategy. NYSERDA's present intention is to identify a private development partner for the first neighborhood to be developed, based on the Land Plan in this *Master Plan*.

Market Strategy. The STEP Market Strategy is based on NYSERDA's programs and business culture, resources and interests of its primary partners, local and regional market data, and other factors. STEP will focus primarily on growth-stage companies and has opportunities to co-market business locations with sites being developed by its partners—the Center for Environmental Sciences and Technology Management (CESTM) campus at the University at Albany, the University at Albany's East Campus, and Luther Forest Technology Campus (LFTC).

Industry Targets. STEP's primary target markets, by industry segments, will include:

- ▽ Energy applications of advanced materials and nanotechnology
- ▽ Alternative energy sources
- ▽ Energy power and electronics
- ▽ Energy deployment programs
- ▽ Advanced energy products
- ▽ Transportation technologies
- ▽ Renewable energy technology and products
- ▽ Environmental technologies.

Tenant Costs. Market rents in the range of \$10 to \$15 per Rentable Square Foot (RSF) for basic space would be ideal, but NYSERDA may need to test market appetite for a fully *green* environment and buildings, perhaps at a cost premium. Shared facilities in multi-tenant buildings are known to be market priorities. Tenants will have access to various business incentives, including some in Empire Zones within the site.

Market Positioning Summary. By its focus on clean energy and environmental technologies, STEP is a unique business site, planned with true focus on industries that, if co-located, can create important synergies that advance their individual business success and stimulate growth of these industries in New York.

STEP is not only a real estate destination: It also is a fully integrated *knowledge community*.

As its overall market position, STEP offers:

- ▽ A 280-acre green laboratory for testing and showcasing innovations in clean-energy and environmental technologies
- ▽ A campus-like environment, designed to support communications and interactions, and a sense of high-energy
- ▽ Multi-tenant buildings with flexible space and occupancy options at costs that represent *high-value*
- ▽ Shared facilities for conferences, testing, and other activities
- ▽ State-of-the-art telecommunications
- ▽ A high tech physical look and/or an Adirondack heritage design
- ▽ Access to programs, funding, and relationships of NYSERDA
- ▽ Access to technology commercialization and science resources of Albany NanoTech and the University at Albany
- ▽ Access to the expertise, services, financing services of SEDC
- ▽ Empire Zone benefits, through the Town of Malta/Saratoga County, and other New York State business incentives

- ▽ An entry point into a network of NY State agencies, universities, and centers of excellence, as well as business-to-business relationships with innovating companies.

Land Plan Overview. The goal is to establish STEP as an environment specifically designed to meet the needs of young, knowledge-based businesses. In addition, STEP will demonstrate a comprehensive array of sustainable design features, and ideally will be a “laboratory” for sustainability.



Aerial View of the STEP Site

Design Principles. Design principles for the site derive from the business/economic development mission and best practices for new *knowledge communities*. Design principles in the Land Plan include:

- ▽ Respect for the natural setting
- ▽ Recognition of the Adirondack heritage
- ▽ Creation of active and passive activity zones and recreation features
- ▽ Establishment of common core facilities, including those for the energy sector (electric generation, chilled water, steam, fuel storage capacity) and those for the sanitary sector (potable water, gray water, treatment, and recycling)
- ▽ Provision of a *Knowledge Community Center* featuring shared common services and small-scale retail to serve the needs of the STEP tenants.

The site is organized by a loop road which forms the boundary of the major building zones on its inside edge and open space and public features on its outside edge. Sustainable design

features used at STEP will provide both a marketing feature and long-term operational savings. Creation of a *knowledge community* will provide focus, momentum, and a sense of place.



The Land Plan designates five “neighborhoods” or clusters of buildings, with parking located between the neighborhoods and a loop road.



Typical Building Cluster

Buildings will be clustered closely, to form properly scaled outdoor “people places,” to achieve a campus-like visual impact, and to conserve meaningful open space around each neighborhood.

Buildings will range from single-story to four-stories. Multi-story buildings are desirable because they offer more design opportunity, achieve an effective scale to create memorable neighborhoods, and conserve land and reduce coverage—all of which are important to achieve sustainable design.

All buildings will be subject to architectural design guidelines and to principles of green design, both of which will be established concurrently with the design of the initial buildings.

Build-Out. Total build-out of 1,250,000 SF is envisioned to be distributed in building types as follows:

STEP Build-Out Statistics Proposed Distribution of 1,250,000 SF			
# of Buildings	# of Stories	Square Footage	
5	1	156,000	
10	2	625,000	
5	3	469,000	
Note: The Land Plan permits buildings of up to 4 stories; however for the purpose of these initial calculations, buildings up to 3 stories were assumed.			

Neighborhood One, consisting of 400,000 SF, is planned in four parts, aimed at achieving development efficiencies. The first project is envisioned to be a 100,000 SF building, consisting of one-third each office, laboratory, and pilot production space. This initial facility is of critical importance, in setting the design tone for STEP.

Planned Uses. For the entire planned 1,250,000 SF of build-out, the distribution of SF by uses is foreseen as follows:

Office	420,000
Lab	420,000
Pilot Plant	240,000
Incidental Use	75,000
Conference Center	65,000
Business Center	30,000
Total Development	1,250,000 SF

Coverages. Total proposed coverages for the site result in 23% impervious surfaces and 77% open spaces.

Summary of Proposed Coverages	
Site (Acres)	280
Site (SF)	12,197,000
Building Coverage (SF)	714,000
Roadway Coverage (SF)	840,000
Parking Lot Coverage (SF)	1,260,000
Total Coverage (SF)	2,814,000
Impervious Surfaces	23%
Open Space	77%

Capital Costs. Capital costs estimated in this *Master Plan* are order-of-magnitude, and must be verified and detailed based on actual, detailed building plans.

Based on initial assumptions, total capital cost is estimated, in today's dollars, at about \$259

million, with an average unit cost of \$207 per Building SF (BSF), distributed as follows:

Off-site infrastructure	\$	\$2,138,000
On-site infrastructure		\$3,170,000
On-site common core facilities	\$	\$26,299,000
Site improvements		\$5,625,000
Base building core & shell		\$75,000,000
Tenant improvements		\$72,583,000
Indirect costs		\$55,445,000
Contingency		\$18,482,000
Total Capital Cost	\$	\$258,742,000

Unit Cost (per BSF) \$ **207**

Financing Strategies. Tenant credit is the most critical factor in inducing commercial financing for projects of this type. Buildings constructed for single users with "bankable" credit will be built based on the user's credit. For multi-tenant buildings in technology parks, financing typically requires substantial pre-leasing with creditworthy tenant(s) and/or a mix of public funding—grants or guarantees. The first one or more buildings in such technology parks rarely can be financed without some form of public, economic development support. Special-purpose facilities will have special financing.

Trial Pro Forma with Initial Assumptions. A trial *pro forma* was prepared, based on initial assumptions, all of which are subject to change or refinement. In that trial *pro forma*, the capital costs summarized above were used. Financing was assumed to be a mix of deferred loans or grants, senior debt, mezzanine debt and other specialized funding.

Revenues and Expenses. Revenues were calculated based on rent assumptions as follows:

Office	\$ 12.00
Lab	24.00
Pilot Plant	8.00
Incidental Use	10.00
Conference Center	15.00
Business Center	10.00
Chilled Water Facilities	1.00

Rents will be calculated based on Rentable Square Feet (RSF), which includes the actual Usable Square Feet (USF) plus an allocation of common areas, based on a ratio of 1.03. The trial *pro forma* also assumes a vacancy factor of 10%. In addition to debt service, expenses are assumed to include \$5.00 per SF for non-reimbursed operating or other expenses.



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