



HOLY NAME HIGH SCHOOL

**SUSTAINABLE ENERGY  
DEVELOPMENTS INC.**





# Vision and Mission



is an Ontario, NY based community wind project developer, currently working with state agencies, municipalities, businesses, schools, farms and homeowners. SED in conjunction with its partners has full engineering, procurement and construction capabilities.

## *Vision*

To be the preeminent developer of community wind power in the Eastern US.

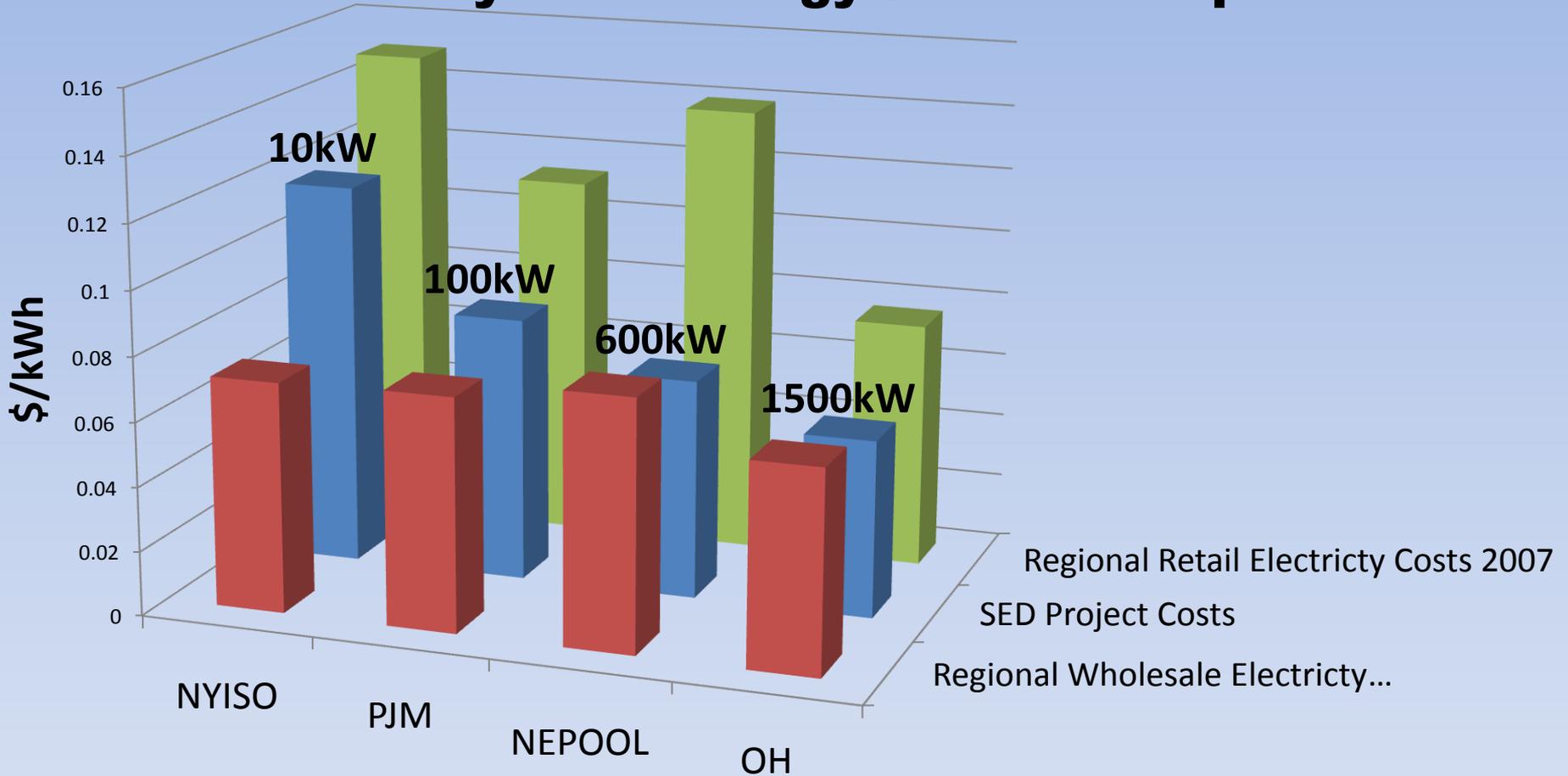
## *Mission*

To maintain an employee-owned and driven organization that leads the market for community based wind power in the Eastern, US, providing low cost, fixed price green electricity to end users and communities.



# Market Drivers:

## Community Wind Energy Is Cost Competitive

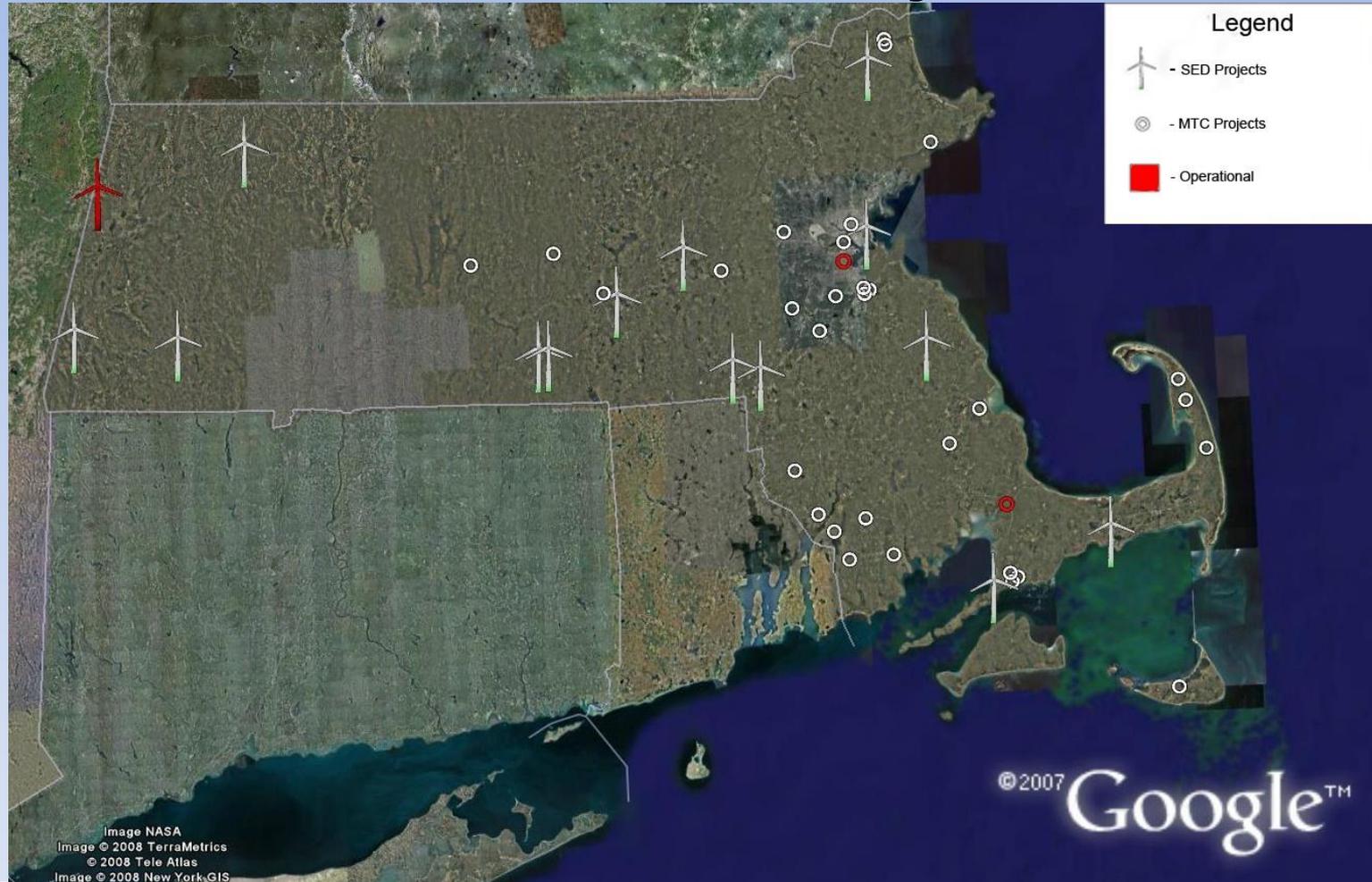


## SED Project Costs v. Regional Electricity Rates



# The Market:

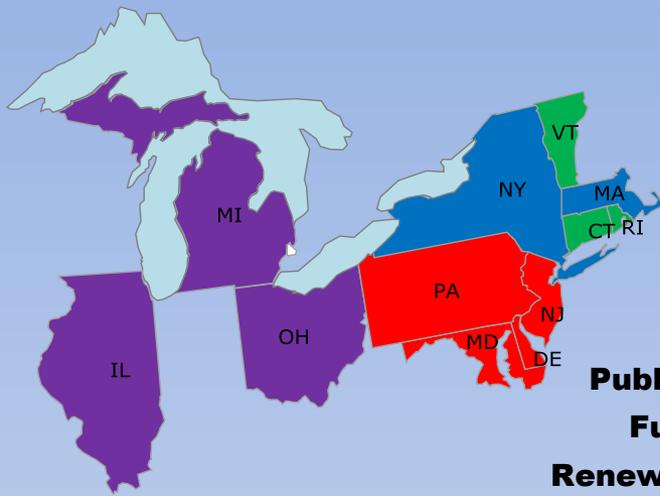
**MA Explodes With New Projects Since 2005  
SED Leads the Way**



# SED's Expertise:

## SED is leading the way in MA

### Other States are Following!



**Public Benefit  
Funds for  
Renewable Energy**

(Millions)

**Retail  
Electricity  
Costs**

\$/MWh

**Renewable  
Portfolio  
Standards**

**REC Market**

\$/MWh

**Market  
Capacity**

MW

<b>SED is Active With Operating Projects</b>					
<b>Massachusetts</b>	<b>\$383</b>	<b>\$140-220</b>	<b>10% by 2015</b>	<b>\$40 for 10 Years</b>	<b>75</b>
<b>New York</b>	<b>\$85</b>	<b>\$80-130</b>	<b>24% by 2013</b>	<b>None</b>	<b>125</b>
<b>Near Term Markets</b>					
<b>Pennsylvania</b>	<b>\$80</b>	<b>\$40-80</b>	<b>18% by 2020</b>	<b>\$25 for 10 Years</b>	<b>125</b>
<b>New Jersey</b>	<b>\$279</b>	<b>\$110-150</b>	<b>22.5% by 2021</b>	<b>\$25 for 10 Years</b>	<b>50</b>
<b>Delaware</b>	<b>\$11</b>	<b>\$110-150</b>	<b>20% by 2019</b>	<b>\$25 for 10 Years</b>	<b>12.5</b>
<b>Maryland</b>	<b>\$11</b>	<b>\$110-150</b>	<b>9.5% by 2022</b>	<b>\$25 for 10 Years</b>	<b>37.5</b>
<b>SED is Active No Operating Projects</b>					
<b>Connecticut</b>	<b>\$338</b>	<b>\$110-150</b>	<b>23% by 2020</b>	<b>\$30 for 10 Years</b>	<b>25</b>
<b>Rhode Island</b>	<b>\$10</b>	<b>\$110-150</b>	<b>16% by 2020</b>	<b>\$30 for 10 Years</b>	<b>25</b>
<b>Vermont</b>	<b>\$36</b>	<b>\$80-130</b>	<b>Expected in 2008</b>	<b>\$30 for 10 Years</b>	<b>75</b>
<b>Mid-Term Markets</b>					
<b>Ohio</b>	<b>\$20</b>	<b>\$80-130</b>	<b>Expected in 2008</b>	<b>\$15 for 20 Years</b>	<b>50</b>
<b>Michigan</b>	<b>\$1,122</b>	<b>\$110-150</b>	<b>10% by 2015</b>	<b>\$15 for 20 Years</b>	<b>75</b>
<b>Illinois</b>	<b>\$127</b>	<b>\$110-150</b>	<b>25% by 2025</b>	<b>\$15 for 10 years</b>	<b>125</b>



# 26 Residential Units in NY



- ***SED's Role:*** Project Management
- ***Technology:*** 25 Bergey Excel 10kW  
1 Endurance 4.25kW
- ***Completion:*** February 2009



# SED's Expertise

## On-Site Wind Projects Make Money

	10kW	100kW	600kW	1.5 MW
<b>Annual Energy Production</b>	12,000kWh	180,000kWh	1,100,000 kWh	4,000,000kWh
<b>Installed Cost After Incentive</b>	\$32,500	\$240,000	\$1,260,000	\$3,460,000
<b>Internal Rate of Return</b>	4-6%	13-14%	15-17%	16-18%
<b>Payback Period</b>	12-15 Years	7-9 Years	6-8 Years	5-7 Years
<b>Lifetime Revenue - Project Owner</b>	\$47,000	\$700,000	\$4,000,000	\$8,000,000

- Total Installed Cost for the project will be \$62,500, \$500,000, \$1,800,000, and \$4,000,000 respectively
- Site wind speeds estimated to be 6.25m/s at 50m
- Maximum state-level incentives are included
- Unleveraged financing
- The cost for electricity is 0.16 \$/ kWh not including any demand charges this value will inflate with CPI at 3%
- The project will receive value for the creation of Renewable Energy Credits at \$0.03/kWh for a period of ten years
- Insurance, operations and maintenance costs are included



# Jiminy Peak Case Study



- ***SED's Role:*** Project Management
- ***Technology:*** GE 1.5MW SLE
- ***Completion:*** August 2007
- ***First Year Savings:*** ~\$700,000

• ***Marketing Value:*** The completion of the Jiminy Peak wind project has propelled SED to the market lead in MA. Local, State and National press on the project have bolstered SED's reputation across the region.

• ***Attracting New Clients:*** SED has contracted **one new project per month since the completion** of Jiminy Peak.



# Holy Name Central Catholic



- ***SED's Role:*** Project Management
- ***Technology:*** Vestas RRB PS 600kW
- ***Completion:*** October 2008
- ***First Year Savings:*** ~\$190,000

- ***Marketing Value:*** The completion of the First Wind Turbine to power a High School in MA
- ***Project is Unique Because:*** With Net Metering in MA, this project provides 100%+ of the electricity to the school and the excess is delivered to the local church.
- ***Attracting New Clients:*** SED has contracted 5 new religious institutions as a result of the relationship established with the Diocese of Worcester



# Hyannis Country Garden



- ***SED's Role:*** Project Management
- ***Technology:*** Northwind 100kW
- ***Completion:*** December 2008
- ***First Year Savings:*** ~\$40,000

• ***Marketing Value:*** First Northwind 100kW in the Lower 48 States

• ***Attracting New Clients:*** Perfect product for small business, municipalities, water/wastewater facilities, small schools etc.



# City of Medford



- ***SED's Role:*** Project Management
- ***Technology:*** Northwind 100kW
- ***Completion:*** January 2008
- ***First Year Savings:*** ~\$25,000

• ***Marketing Value:*** First Public School in MA with a wind turbine. Reduces School load by 10-15%. Introduces community to wind turbine technology.

• ***Attracting New Clients:*** Perfect product for small business, municipalities, water/wastewater facilities, small schools etc.



# KC Bailey Fruit Farm



- ***SED's Role:*** Project Management
- ***Technology:*** Endurance P20/50kW
- ***Completion:*** August 2009
- ***First Year Savings:*** ~\$20,000

• ***Marketing Value:*** Introduction of IEC class IIa/IIIa wind turbine to US market. Cost effective in unsubsidized states with inclusion of federal ITC.

• ***Attracting New Clients:*** Perfect product for farms, small business in rural areas.



# The Albany County Example



- ***SED's Role:*** Project Management
- ***Current Progress:*** Established feasibility and ownership entity for a 4.5MW Wind Farm in Knox, NY

- ***Marketing Value:*** Business prospectus created is a marketing tool for similar communities and to establish state incentives for small wind farm development.
- ***Market Growth:*** 450 of similar projects in the Northeast over the coming 5 years.



# Fox Island Wind, LLC



- **SED's Role:** Turbine Procurement, Project/Construction Management Consulting

- **Current Progress:** Guide Project Team and Owner through design, development, financing, construction, commissioning of a 4.5MW Wind Farm

- **Marketing Value:** First commercial scale wind project on a North Atlantic Island, use of RUS funds, USDA funds, and private equity all in conjunction.

- **Market Growth:** Atlantic Islands are an Ideal place for community wind with 30 or more potential locations North of Long Island, NY.



# SED's Projects:

## ***Feasibility Studies***

100kW

Big Apple

City of Medford

Mass Bay Transit Authority

St. Mary's Abbey

Town of Hanover

Barden Homes

## ***Midsized***

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Pocasset Golf Course

Webster Water Treatment Plant

Berkshire East Ski Resort

Hazleton Water Treatment Plant

Catamount Ski Resort

## ***Projects Greater than 1MW***

Jiminy Peak Mountain Resort

Masonic Health Center

Mass Bay Transit Authority

Wayne Industrial Sustainability Park

Albany County

Kodak - rochester

Onondaga Nation

Barton Mines

Ithaca College

University of Delaware

Sullivan County

## ***Design and Construction***

Jiminy Peak Mountain Resort\*

Holy Name Central Catholic\*

Country Garden\*

City of Medford\*

Williams Stone Company

Woods Hole Research Center

Town of Hanover

Mass Bay Transit Authority

Berkshire East Ski Resort

Hazleton Water Treatment Plant

Mountain View Grand Hotel

## ***10kW***

13 Residences

6 Farms

1 Business

1 School

1 College

1 State Agency



# SED's Technology Partners:

Manufacturer	Rated Power	Model	Rotor Diameter	Hub Height
<i>Endurance Windpower</i>	4.5kW	250T	5.5m	37m
<i>Bergey Wind Power</i>	10kW	Excel-S	7m	37m
<i>Endurance</i>	50kW	P20/50	19m	42m
<i>Northern Power Systems</i>	100kW	Northwind 100	21m	37m
<i>Norwin</i>	225kW	Norwin 30	29.5m	50m
<i>Vestas RRB</i>	600kW	PS 600	47m	65m
<i>EWT DirectWind</i>	900kW	DirectWind	54m	75m
<i>General Electric</i>	1500kW	SLE/XLE	77m/82m	80m



# Thank you For Your Time and Consideration

**Kevin M. Schulte**  
Chief Executive Officer  
Founder and Owner



Please Visit us on the Web at:  
[www.sed-net.com](http://www.sed-net.com)

