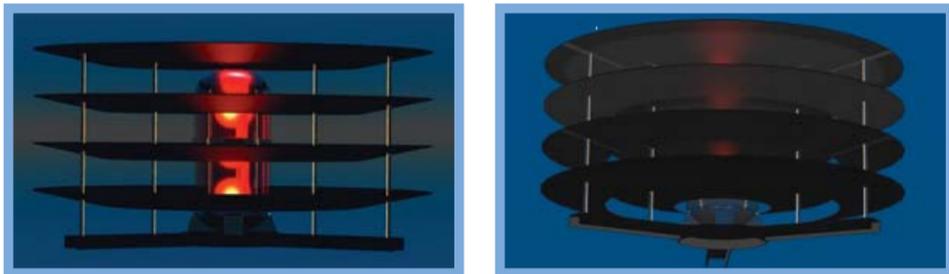




## TowerSHADE™ helps you overcome light pollution challenges

From citizens groups to municipal governments to national associations, there is a groundswell of concern about tower siting – concerns that can lead to significant and costly delays in the tower siting process. Light pollution created by FAA-mandated obstruction lighting is one of the most pressing of these concerns.

TowerSHADE™ is the only effective solution on the market today to control nuisance light from tower obstruction lighting. TowerSHADE comes in models that fit most major types of FAA-approved obstruction lighting while still allowing your lighting to meet or exceed all FAA standards.



### Why should TowerSHADE be part of your lighted-tower installation?

- ❖ At a fraction of overall tower building costs, TowerSHADE can **save you time and money** by providing more flexibility in siting towers and speeding local government approvals
- ❖ As an effective part of your toolkit, TowerSHADE can help **prevent objections from municipalities and residents' groups** to your tower construction (including in scenic or protected areas)
- ❖ **TowerSHADE eliminates 97% of nuisance light** within the targeted area while maintaining FAA standards for aerial visibility
- ❖ The patented\* TowerSHADE product line **fits all major FAA-approved beacon lights** (see other side)
- ❖ TowerSHADE's **modular design** means that customer orders are filled and shipped without delay
- ❖ Light, durable composite materials and advanced design mean **easy installation, long service life and low maintenance** – ice does not stick, birds do not nest!
- ❖ **Retrofitting** existing towers with TowerSHADE is **fast and easy** as it installs directly onto the base of existing lights

\* Pat. 2197271 Canada; Pat. 5.980.069 USA

Find out more about TowerSHADE™ at [www.towertex.com](http://www.towertex.com)

“TowerTEX's tower light deflector (TowerSHADE™) has proven itself to be an effective tool for us in resolving municipal concerns about light pollution during the tower siting process. TowerSHADE™ also allows us to locate towers on more cost-effective sites in residential areas.”

**James Kennedy**  
Manager, Real Estate and Government Affairs, Telus

### TowerSHADE's composite advantage

At the core of TowerSHADE and all TowerTEX products is the use of advanced composite materials called Fiber Reinforced Plastics (FRP), like those used in the aerospace industry.

TowerTEX's FRPs are sophisticated and environment-friendly. The unique patented design and advanced manufacturing techniques give TowerSHADE the following advantages:

- ❖ Low environmental impact – the expected product lifetime is double that of stainless steel
- ❖ 25% of the weight of stainless steel (cheaper transportation and easier installation)
- ❖ Low maintenance due to FRPs. No corrosion, de-icing or snow accumulation problems
- ❖ The unique, patented design discourages birds from building their nests in the product

### TowerSHADE is catching on!

Leaders in the telecommunications and tower industries such as Rogers, Bell Mobility, Telus, Advanced Towers, Westower and Skyward are already using TowerSHADE to overcome siting objections due to light pollution.

Here are just a few of the hundreds of communities that have addressed light pollution issues with municipal ordinances:

Decatur, Opelika, Athens – Alabama; Johnston County, Stokes County, Person County, Catawba County – North Carolina; Kinderhook, Mt. Vernon, Ossining – New York; Ebro, Neptune Beach, Gretna, Midway, Liberty County – Florida; Walkersville, Maryland; Saluda County, SC; Shenango, Jefferson, Findley, Fairview – Pennsylvania; Rio Rancho, New Mexico.

Hundreds more towns and more than half of all states across the US, including Alabama, Colorado, Connecticut, Florida, Maine, Massachusetts, New Mexico, North Carolina, Pennsylvania, South Carolina, Texas and Vermont are currently developing or reviewing light pollution legislation.

In Canada, TowerSHADE is already being used effectively in over twenty counties and municipalities, including Brockville, Owen Sound and Muskoka in Ontario and North Hatley, Quebec.

## Appendix F: Information on Turbine Light Shield

Prepared By:



The Jordanville Wind Farm,  
a project of  
COMMUNITYENERGY

### Jordanville Wind Power Project

Towns of Warren and Stark  
Herkimer County, New York

Source: <http://www.towertex.com/en/4.2.towershade.html>

November 2006

Reduces nuisance light by 97% within a 2-mile diameter (based on light placed atop a 250-foot tower)

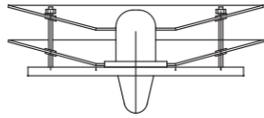


TowerSHADE™ has been lab-tested and upholds FAA specifications on most major FAA-certified obstruction lighting systems

## TowerSHADE Models

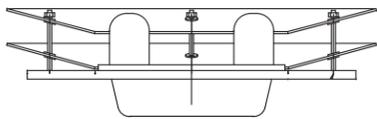
### TS-3-2 Low Intensity Steady Burning Red Obstruction Light

FAA Type: L-810 (Red) ICAO Type: Low Intensity Obstacle Light



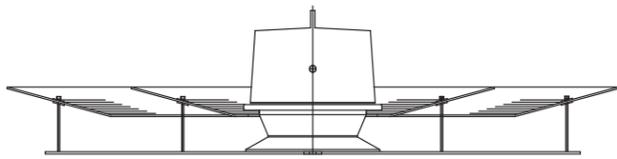
### TSO-3-2 Low Intensity Steady Burning Double Red Obstruction Light

FAA Type: L-810 (Red) ICAO Type: Low Intensity Obstacle Light



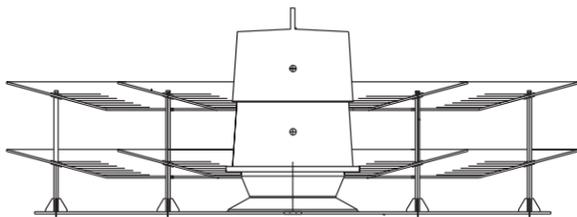
### TS-5-1 Medium Intensity White Lighting

FAA Type: L-865 (White) ICAO Type: Medium Intensity Obstacle Light



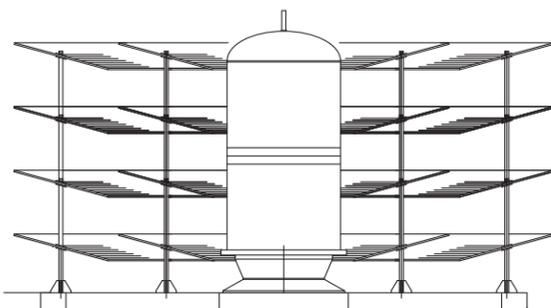
### TS-5-2 Medium Intensity Dual Lighting System (Flashing)

FAA Type: L-864/L-865 (Red/White) ICAO Type: Medium Intensity Obstacle Light



### TS-5-4 Flashing Red Beacon

FAA Type: L-864 (Red) ICAO Type: Medium Intensity Obstacle Light



## TowerTEX

### Putting composites to work for the telecom and energy industries

TowerTEX is a leader in the field of sophisticated engineered composites using advanced manufacturing techniques. TowerTEX designs, manufactures and markets structural towers and related products for the telecommunications and energy industries.

The TowerTEX team brings together decades of experience in telecom infrastructure, power transmission, and composite engineering.

TowerTEX takes full advantage of its strategic alliances with leading universities and research centers. This combination of real-world experience and research horsepower has positioned TowerTEX as the industry's most advanced tower solution provider.



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REV. 12-05

## Appendix F: Information on Turbine Light Shield

Prepared By:



The Jordanville Wind Farm,  
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COMMUNITYENERGY

### Jordanville Wind Power Project

Towns of Warren and Stark  
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Source: <http://www.towertex.com/en/4.2.towershade.html>

November 2006