# Energy Department Announces National Initiative to Redevelop Brownfields with Renewable Energy

Innovative New Approach Utilizes Solar Energy To Turn Brownfields Into "Brightfields"

"Incorporating solar and other renewable energy technologies into the reuse of industrial properties makes economic and environmental sense. This effort can serve as a national, even international model for the kind of development that promotes livable communities." -Energy Secretary Bill Richardson

Brightfields is a revolutionary concept that addresses three of the nation's biggest challenges -urban revitalization, toxic waste cleanup, and climate change -- by bringing pollution-free solar energy and high-tech solar manufacturing jobs to brownfields. The Brightfields approach offers a range of opportunities to link solar energy to brownfields redevelopment and thereby transform community hazards and eyesores into productive, green ventures. This unprecedented campaign will help our nation put its hundreds of thousands of brownfields back into productive use and at the same time create high-tech jobs in blighted urban neighborhoods, improve air quality, and reduce greenhouse gas emissions.

## What is a Brightfield?

- The term "brightfields" refers to the conversion of contaminated sites into usable land by bringing pollution-free solar energy and high-tech solar manufacturing jobs to these sites, including the placement of photovoltaic arrays that can reduce cleanup costs, building integrated solar energy systems as part of redevelopment, and solar manufacturing plants on brownfields.
- Solar energy technologies, and photovoltaic systems in particular, are well-suited to application on brownfields sites. They require very little maintenance and can stand directly on the ground without penetrating the surface or disturbing any existing contamination. The systems can be installed to function on or off the local power grid, depending upon the needs of the site and existing infrastructure without adding pollution to the site.
- Each brightfield, like each brownfield, will vary in terms of the use of solar energy systems power generation, solar manufacturing, solar lighting according to the size of the site, redevelopment plans, and market conditions, among other factors.

## What is the Brightfields Initiative?

• In an effort to encourage productive use of brownfields and advance the use of clean and climate-friendly energy technologies, the Department of Energy is working with local governments and industry to link solar energy technologies to brownfields redevelopment.

In addition to bringing brightfields to Chicago, DOE has begun work with cities in California, Virginia, Minnesota, New York, and Connecticut, to explore how brightfields can help their communities address concerns about land use, economic development, energy, air quality and climate change.

## How Will The Brightfields Initiative Help Invigorate Communities Nationwide?

- Brightfields are a clean and green option for serving local energy needs without adversely affecting air quality and climate. Solar energy systems provide a clean and reliable energy source that can be used to serve community businesses, residential homes, local transit, among other energy users.
- Brightfields also provide an opportunity to attract environmentally conscious businesses that are interested in supporting green investments or locating in more environmentally friendly industrial parks. For example, locating solar module manufacturers on brownfields, as one type of brightfields redevelopment approach, provides a great opportunity to create new jobs and spur local markets for solar energy systems.
- Solar power provides environmental benefits that are especially attractive to urban areas with air quality concerns. With zero emissions, solar energy systems can offset emissions from other energy sources particularly during peak hours when utilities often rely on older systems that pollute more heavily.

## What Is Chicago Doing as the First City in the Brightfields Initiative?

- The city of Chicago, working with the Department of Energy and Commonwealth Edison, has developed an extensive plan that uses the brightfields approach to collectively advance their economic development, climate change, air quality, and electricity reliability goals.
- As a first effort, the city has attracted Spire Corporation to manufacture solar panels on one of its brownfields. As a result, over 100 new jobs will be created. In addition, a solar energy system will be installed at the brownfield, both to supply some of the company's electricity needs and to serve as a demonstration and educational site.
- The city of Chicago and Commonwealth Edison jointly have committed \$8 million to purchase solar systems in the next five years. The solar systems will be installed on other brownfield sites as well as schools, office buildings, transportation routes, and municipal and commercial properties. School applications will provide real-life opportunities to teach kids about science, technology, energy, and environmental issues.

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