

EMERALD CITIES



URBAN SUSTAINABILITY
AND ECONOMIC DEVELOPMENT

JOAN FITZGERALD

Strategy/ Sector→ ↓	Renewable Energy	Green Building/Energy Efficiency	Recycling/ Waste-to-Energy	Transportation
Linking Strategies create connections between elements of sustainability strategies and economic or workforce development.				
Transformational Strategies attempt to transform or “green” existing economic sectors or stren.				
Leapfrogging Strategies attempt to build entirely new green sectors and jobs.				

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<i>Transformational strategies</i> attempt to transform or “green” existing economic sectors or [strengths].	Toledo, OH From glass to solar panels	Pittsburgh, PA Green Building Alliance Syracuse, NY Growing an indoor environmental quality sector New York City NYC Green Manufacturing Initiative	Bronx, NYC Sustainable South Bronx	Portland, OR Building local streetcars
<i>Leapfrogging strategies</i> attempt to build entirely new green sectors and jobs.	Austin, TX Creating a solar industry Cleveland, OH region Creating a wind industry		Los Angeles, CA RENEW LA	King County/(Seattle, WA Biowaste to Biodiesel Portland, OR A Niche Bicycle Industry

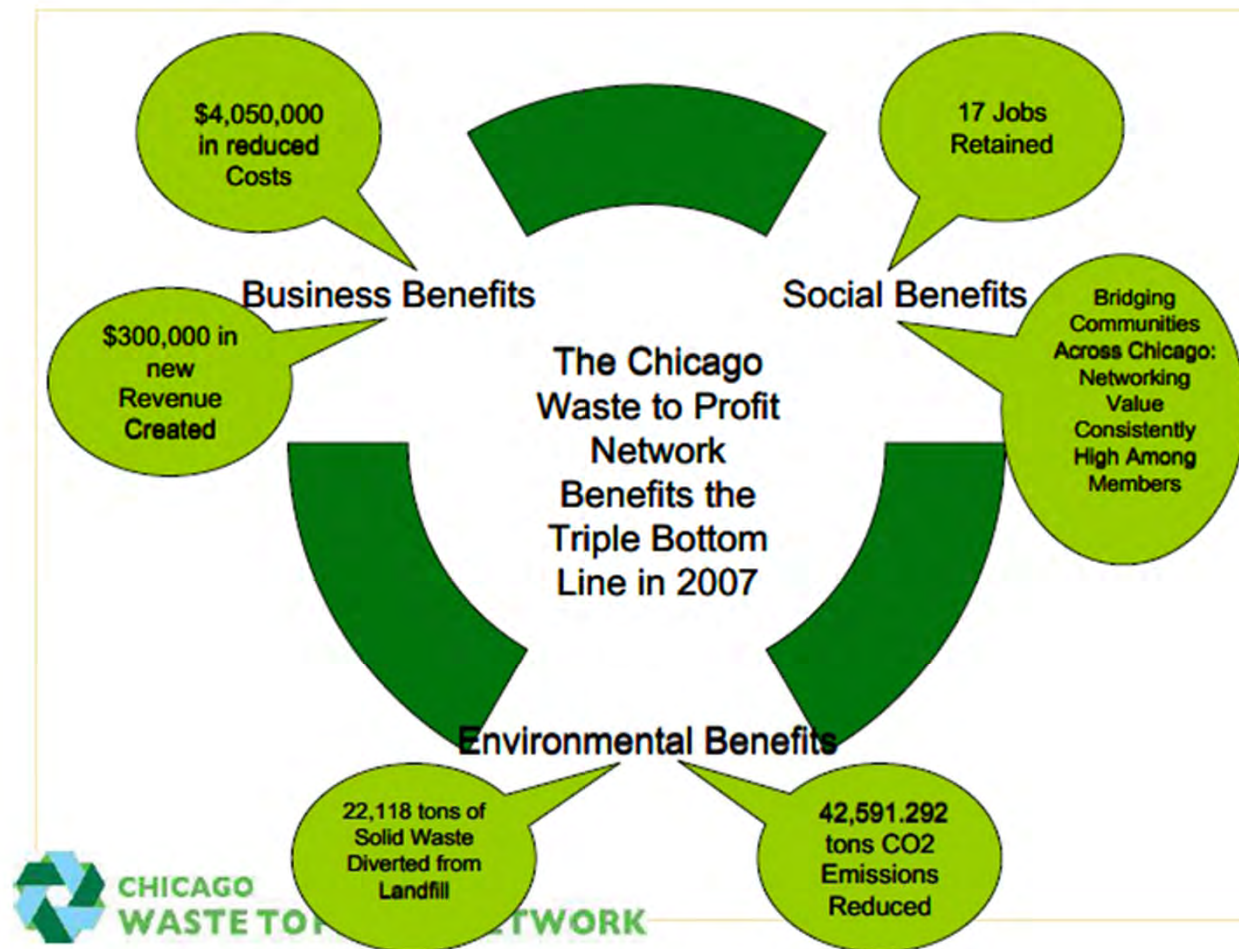
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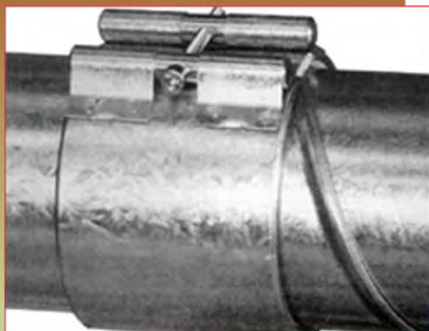
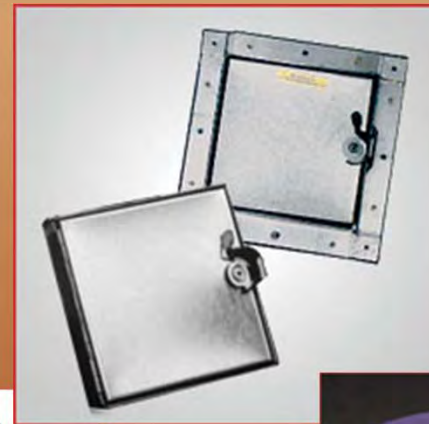
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TO→



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Contact: Tom Harley ▪ Geothermal Energy Systems ▪ 724.349.2520 ▪ tharley@trarchitects.com

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Austin and Toledo

- Political Support
 - City-owned utility
 - University Research
 - Incubator
 - Research partnerships on grid technology
 - Incentives for solar production
- Economic development focused on new technologies
 - University research
 - Incubator
 - Incentives for solar production
 - Existing industry with related competencies

Austin and Toledo, cont.

- HelioVolt
- First Solar
- Xunlight
- Solargystics
- >6000 employed in 15 research and manufacturing enterprises in solar industry

First Solar, Perrysville, Ohio



First Solar, Malaysia





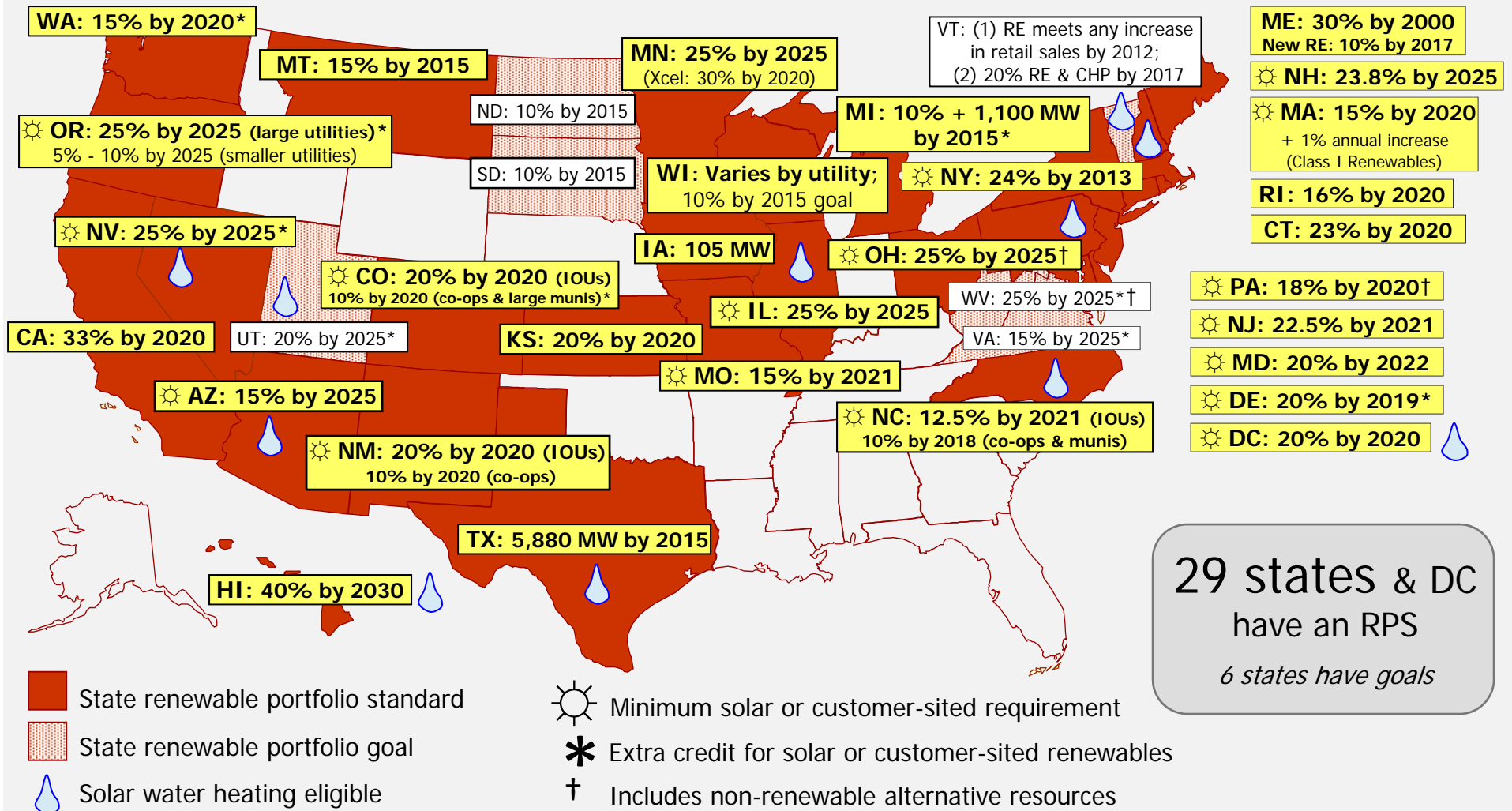
Xunlight
Toledo, Ohio

Xunlight's founders with their prototype product



Renewable Portfolio Standards

www.dsireusa.org / November 2009



29 states & DC
have an RPS
6 states have goals

Freiburg Train Station





Badenova Stadion



Solar addition







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