

A photograph of a solar farm. In the foreground, there are several purple flowers, likely bee balm, and yellow flowers, likely black-eyed Susans. In the background, numerous blue solar panels are mounted on a metal frame, angled towards the sky. The sky is blue with some white clouds.

AltTechnica

Solar Design

Amelia Amon

aamon@alt-technica.com

212.920.9668

Bringing Life to Solar Farms





AltTechnica
Solar Design

Amelia Amon
aamon@alt-technica.com
212.920.9668



the Aesthetics of Energy



75% of all fruits, nuts, & vegetables
(flowering plants) are pollinator-dependent



Bird, butterfly, & beneficial insect populations are in sharp decline due in large part to loss of habitat & native plant species



Fresh Energy

Community acceptance is crucial & a solar developer's competitive advantage for an estimated 6-8 million acres *



Energy from more than 1,200 solar panels powers Benjamin Freund's 650-acre dairy farm and home in East Canaan, Conn.

Solar Projects Sow Tension

As panels supplant crops on more farms, states weigh limits on big renewable fields

tion of Counties.

The pressure in rural areas stems, in part, from simple economics. Some farmers are installing solar panels on a patch of their land to help offset energy costs. Other farmers are putting out entire

On the Bright Side

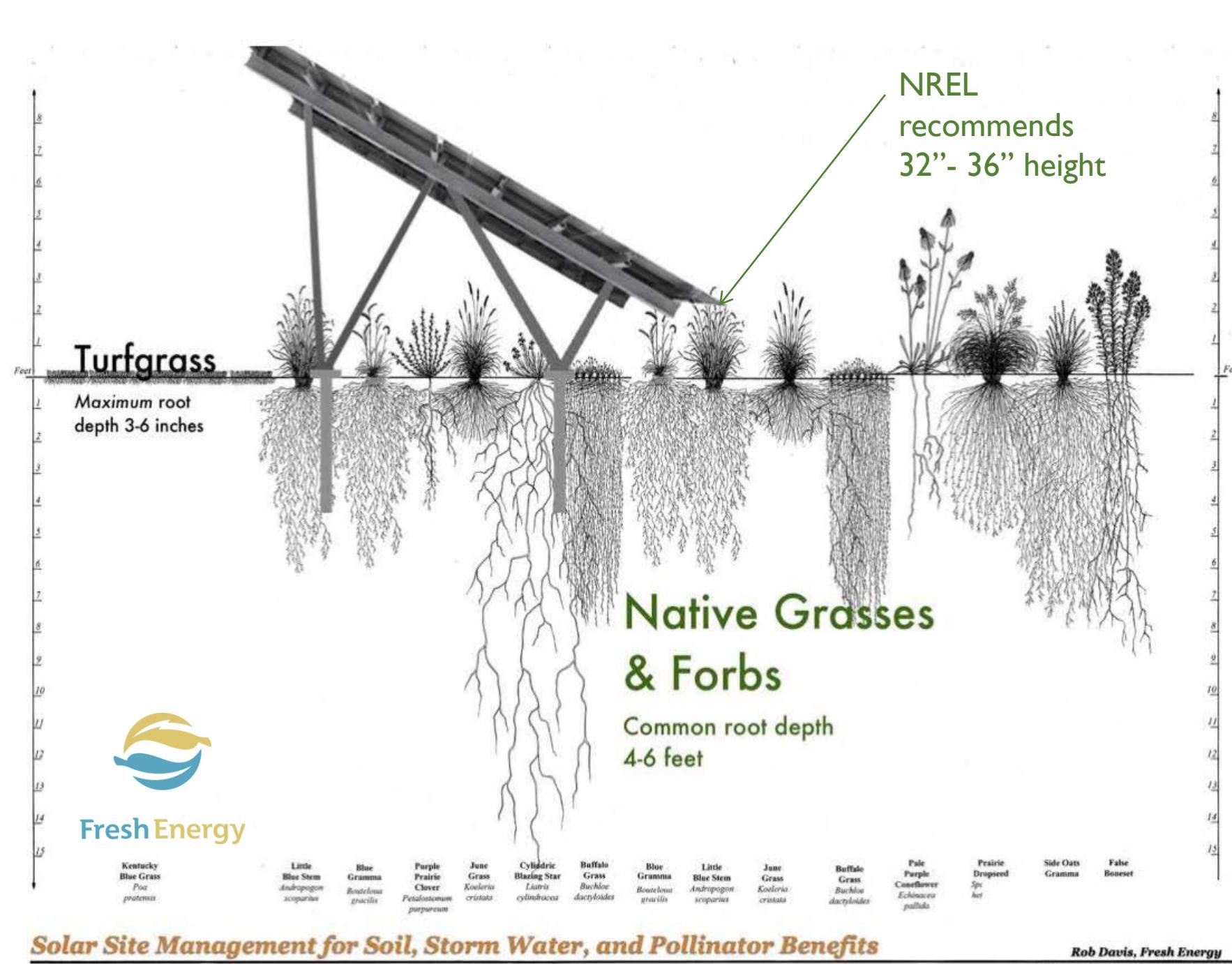
U.S. solar power generation in thousand megawatt hours
2016: 36,755
30,000

whelming opposition," said Mr. Scanlon. The county denied the application.

Benjamin Freund, who has a dairy farm in East Canaan, Conn., in recent years installed more than 1,200 solar panels on a patch of his land and on top of his dairy barn. The gen-



* Technical Report NREL/TP-6A20-56290
June 2013 www.NREL.gov



Deep roots increase carbon sequestration, along with drought, flood, & erosion resilience.

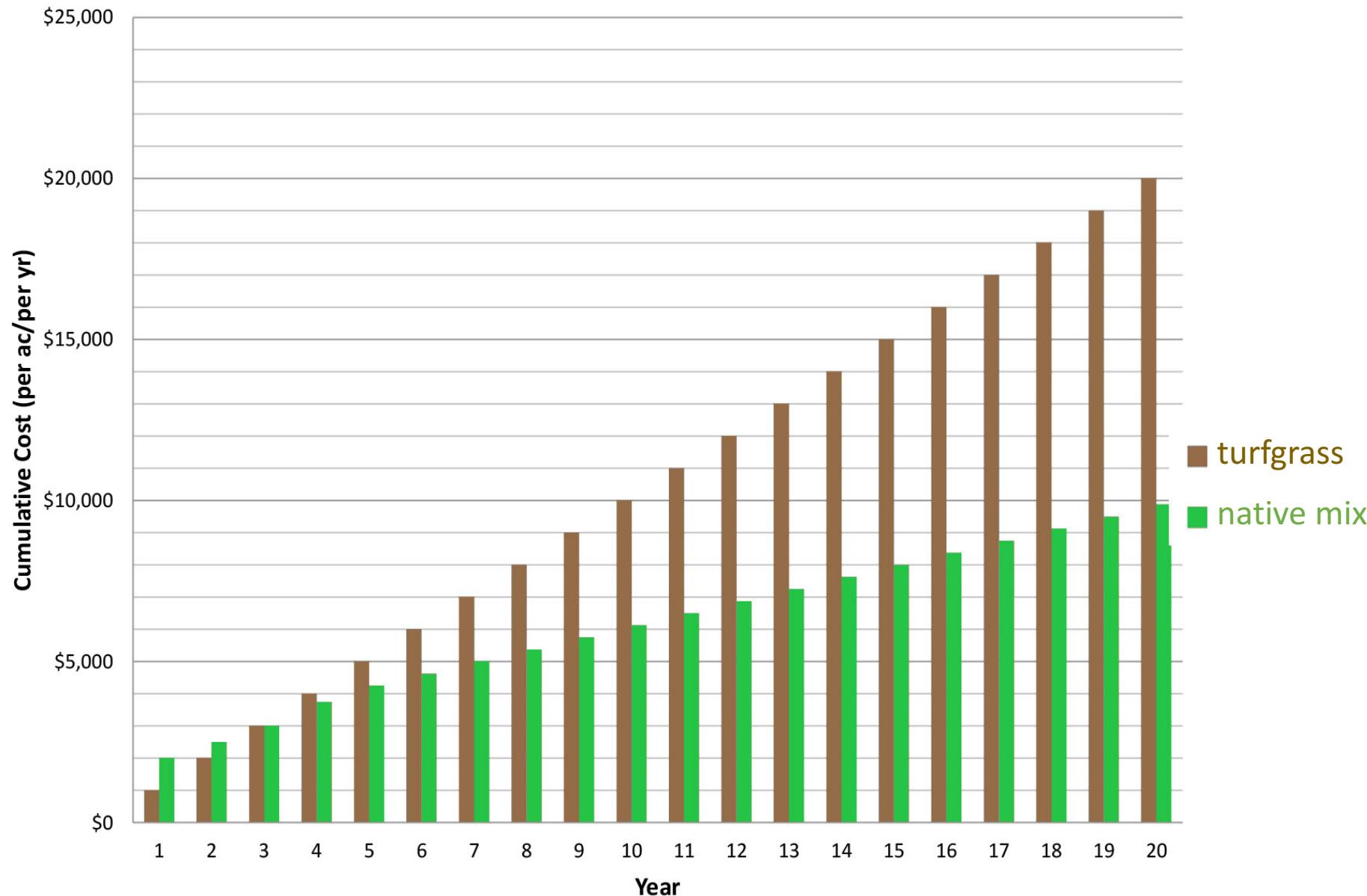
Cooling transpiration adds to module efficiency at 77°+

Center for Pollinators in Energy
BeesLoveSolar.org

“Fuzz & Buzz”
seed mixes provide
for animal grazing as
well as pollinators,
adding to overall
productivity



Comparison of cumulative costs of maintaining pollinator-friendly seed mix vs turfgrass*



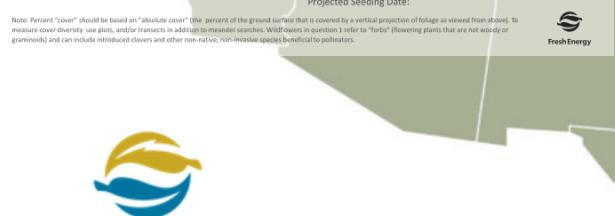
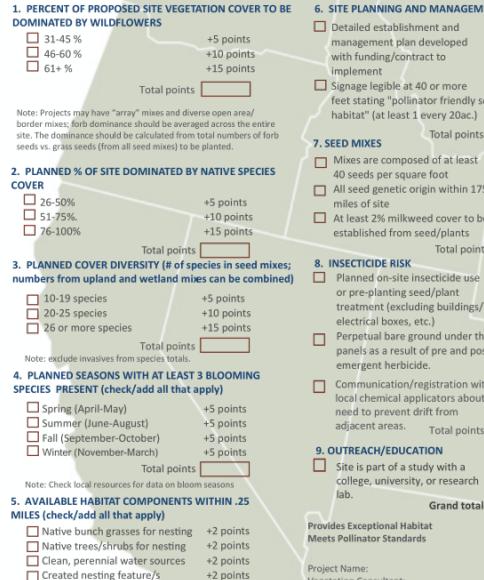
Native seed mix results in cost savings on O&M over traditional turfgrass, with a break-even point at Year 3-8

*Applied Ecological Services, Inc. 2013
www.vcr.virginia.gov



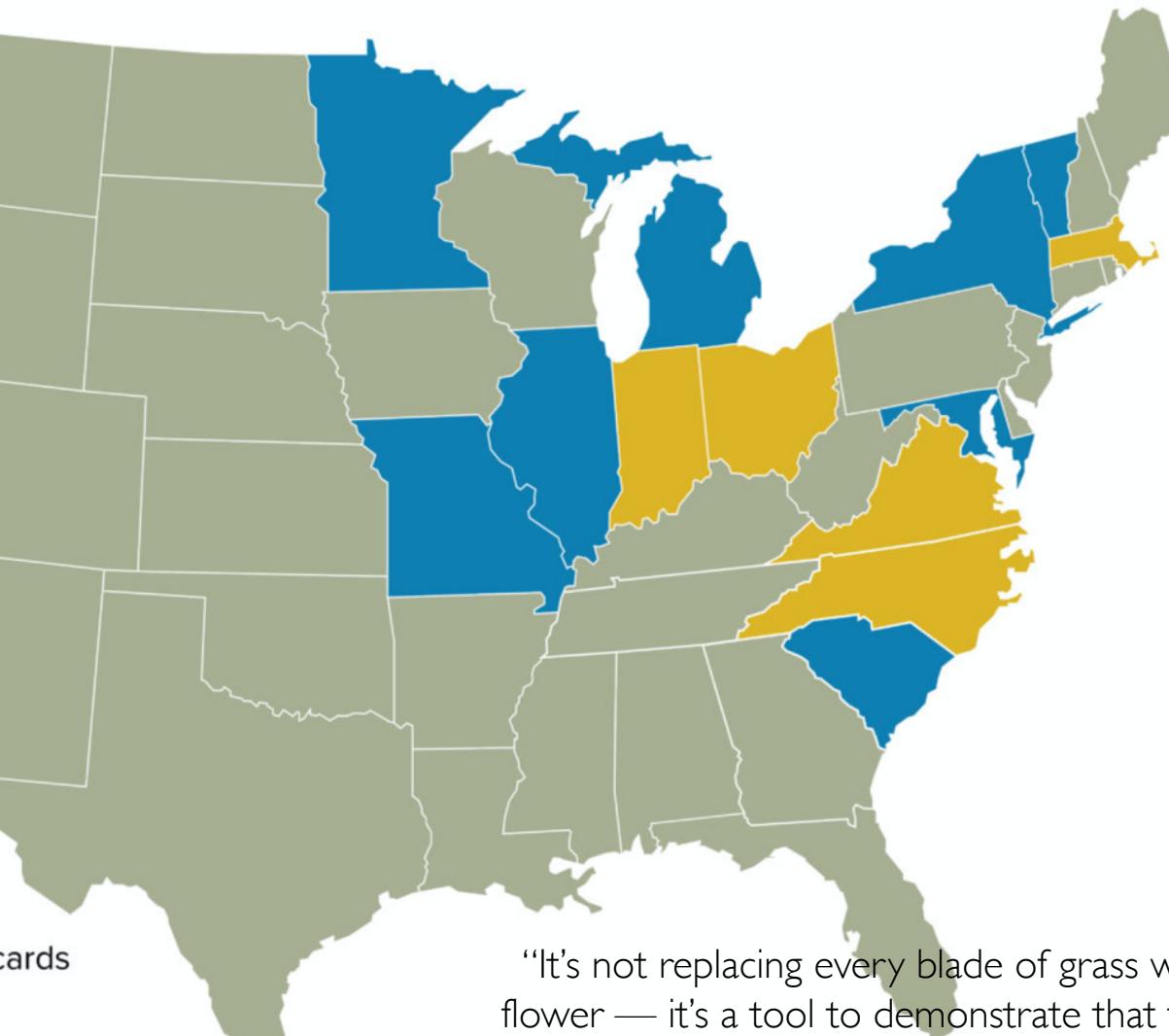
Pollinator-friendly solar scorecard

The entomologist-approved standard for what constitutes "beneficial to pollinators" within the managed landscape of a PV solar facility. Only for use in countries and/or states that have not yet adopted a standard.



Fresh Energy

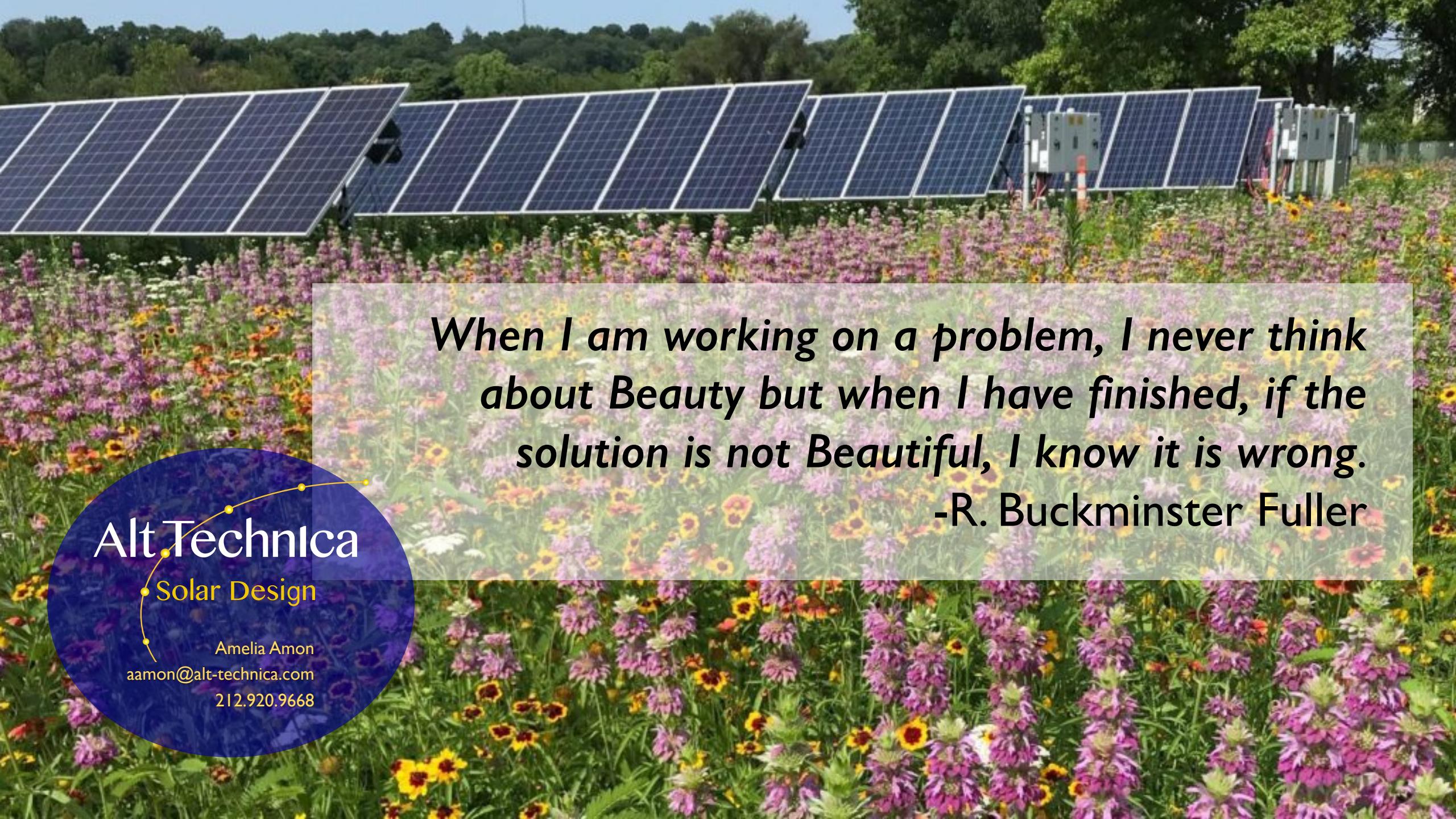
- Pollinator-Friendly Solar Scorecards are in state law.
 - Pollinator-Friendly Solar Scorecards published for county ordinances and procurement.
 - State-Neutral Scorecard Available



“It’s not replacing every blade of grass w/
flower — it’s a tool to demonstrate that the
project has implemented **incremental** change
in seed mix design to accomplish
a **meaningful** result.

State & National
standards, vetted
by **Entomologists**

- % wildflowers
 - % native species
 - # of species
 - # seasons flowering
 - Nearby assets
 - Management plan
 - Signage
 - Insecticide risk



When I am working on a problem, I never think about Beauty but when I have finished, if the solution is not Beautiful, I know it is wrong.

-R. Buckminster Fuller

