



Lessons from Minnesota:
A Solar Success

ENVIRONMEN

GLAD TO HAVE YOU...WE'LL GET STARTED
IN A FEW MINUTES



The Solar Works for Minnesota Campaign:



Building a movement through organizing, policy, and public education

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In May 2013 MN passed a clean energy bill:

- 10% by 2030 solar goal, 1.5% by 2020 solar standard for IOUs, w/ carve out for small (<20kW)projects
- Raises customer net metering cap to 1MW
- Community-Shared Solar projects
- Value of Solar Tariff (MN first in nation!)
- Improves PACE, adds new solar incentives and Made in Minnesota
- Commissions 40% by 2030 study
- Increases utility energy saving goal to at least 1.5% annual sales, requires prioritizing energy savings over all other power

How did we get here?



RALLYING AROUND A BIGGER VISION

- Needed to be bold enough to fire up the base and seem worth the effort for other stakeholders.
- Solar has appeal for diverse stakeholders -- Built a broad united coalition -- Solar Works for Minnesota
- Public education and outreach
- Educate policymakers
- Legislative successes in 2011 and 2012, big win in 2013.
- Strategy to gain Gov. Dayton as a champion





Our campaign policy priorities:

- Pass a 10% by 2030 solar energy standard .
- Help public buildings install solar energy, like schools, police and fire stations.
- Support a market mechanism for increasing solar development in homes and businesses.





Benefits of Solar On Public Buildings

Just the roof top space on K-12 schools in Minnesota would produce hundreds of MW's of power.

Provide additional revenue either through decreased energy usage or sales which helps schools and taxpayers







- Solar Works for Minnesota coalition includes 150 non-profits, businesses and unions.
- The campaign was endorsed by the Solar Energy Industries Association, the Minnesota Environmental Partnership, The Blue Green Alliance of Minnesota and MN-AFL-CIO.
- Minnesota Clean Energy & Jobs Campaign, launched early 2013







Three most important aspects of any campaign!

- Start with solid public support and mobilize supporters
- Building a strong coalition of diverse interests and stakeholders.
- A Focused Campaign with Clear Goals



With the company's unique photo- log of orders, meet demand from California to India, would seem that Minnesota is well-po-come from solar. The RES also manand everywhere in between, Joel Can-sitioned for solar development. Indeed, dates that the state's other utilities -

SMALL PV MARKET - BUT THAT MIGHT SOON CHANGE

ike so many new solar manufac- non, the company's CEO, points out the state has one of the more aggresturers, Bloomington, Minnesota- that since TenKsolar began production sive Benewable Electricity Standards based TenKsolar has its sights last September. It has already shipped 1 (RES) in the nation - although the law firmly set on the world solar market. MW of product and developed a back- has some quicks. The RES requires 30percent of retail electricity sales by voltaic (PV) system, which combines — For now, though, it's unlikely that - the state's largest utility, Xcel Energy, modules, reflectors and tacking in one all that many of the company's PV sys- to come from renewable sources by package and is designed to sit atop flat tems will end up on mostops around 2020. Of that 30-percent requirement, commercial roofs, TenKsolar hopes to the North Star State. At first glance, it though, no more than I percent can

Photos fetnary 1011



Public Support for Solar

- Support for solar transcends geographic and cultural boundaries with solar ranking as top choice for new energy development in every region of the country.
- Unlike any other energy source, it has high public support across party lines. 87% of Democrats and 68% of Republicans saying that we should place more emphasis on solar development.



Reasons why solar is so popular!

- Costs are declining.
- Greater concern about energy security.
- Greater concern about environmental impacts of fossil fuels.
- Better understanding of the benefits of distributed generation.
- Better understanding local economic benefits.
- Society now understands systems-technology can change quickly, such change is embraced and desired.
- Solar Industry is better organized and more sophisticated in its strategies.





Minnesota's Story!

Minnesotans imports at least \$20 billion (\$3800 per Minnesotan) per year to other states and countries to pay for energy, according to 2008 U.S. DOE, **Energy Information Administration** data. Keeping more energy dollars cycling in the state will have a significant positive impact on our econony.





- Annual poll conducted before MN legislative session
- 500 telephone interviews with registered Minnesota voters
- Bipartisan research team of Fairbank, Maslin, Maullin, Metz and Associates (D) and Public Opinion Strategies (R)
- Results from January 2012



Minnesota's Polling Numbers

- □2/3 of voters a candidate who wants to promote more use of clean, renewable energy – like wind and solar power;
- □A strong majority of voters back 10% solar requirement, across party lines: 88% of Democrats, 66% of Independents and 57% of Republicans;
- □Four out of five voters support legislation to encourage solar use on public buildings with 94% of Democrats, 79% of Independents and 68% of Republicans;
- □Voters are willing to pay more for solar and efficiency (if needed) with 56% supporting paying as much as \$6





Minnesota's Polling Numbers

- □Solar Energy has strong support across party lines;
- □Both men and women support solar overwhelmingly 90% women and 83% men;
- □In MN 87% of those polled supported solar energy;
- □In MN 86% support solar on roof tops of homes, businesses or public buildings;
- □2/3 of Voters believe that increasing the use of efficiency, wind and solar will create jobs;



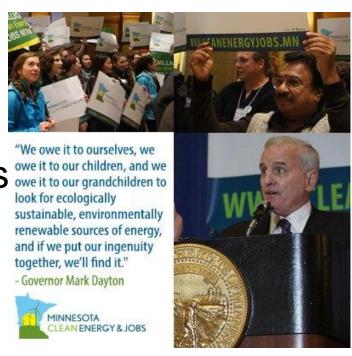




- Media
- Events: tabling,State Fair
- Websites/email campaigns
- District meetings
- Presentations
- Creativity!









Putting the Sun to Work for Minnesota Short Film Contest



See other films:

http://bit.ly/12VV69f

Solar Works for Minnesota: <u>www.solarmn.org</u>

Clean Energy & Jobs Campaign: cleanenergyjobs.mn





Industrial Union Guy

30 years here. Ford Twin Cites Assembly Plant. 10 yrs on the rivet line and 20 as a UAW rep bargaining for sustainable jobs.

Produced the "Green Product, Green Plant" plan to transform the plant for mfg jobs in the clean energy economy. State PHEV committee, Mayors Green Mfg Initiative followed.

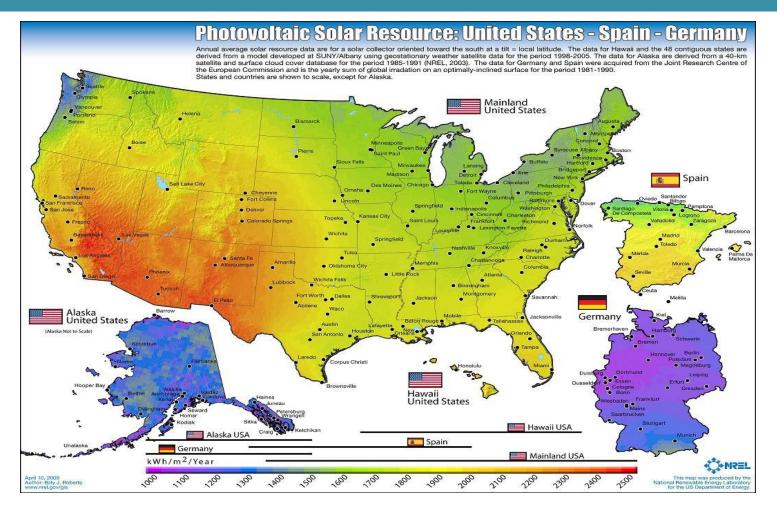




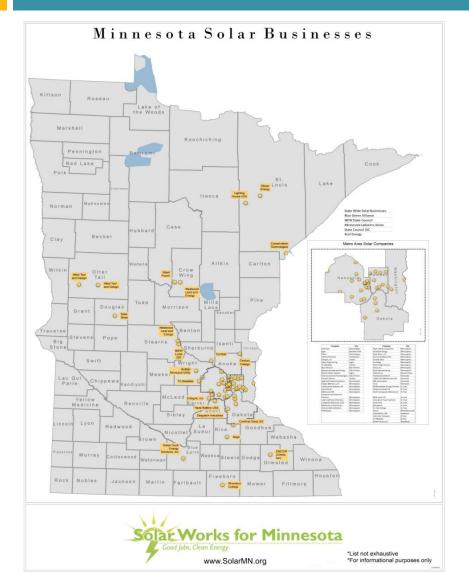
Solar Industry Guy

Lynn Hinkle is now Policy Director for the Minnesota Solar Energy Industries Association (MnSEIA) standing in front of a solar array he helped develop on Spruce Tree Center at University and Snelling in St Paul.









Minnesota Solar Manufacturing Supply Chain Jobs

33 MN Manufacturing Companies 2,000 Direct Jobs

4,000 Manufacturing Supplier Jobs

6,000 MN Solar Mfg Jobs



SES Makes Minnesota a Target for Investment

- Minnesota presently has more than 100 companies producing solar products/services
- A 10% SES would move Minnesota from "not considered" to a state targeted for significant investment
- Information from the MN DEED/MnSEIA/ DER Dec. 2010 Solar Manufacturing Supply Chain Roundtable





- Solar Minnesota's Jobs Engine
- Solar Bonding Provisions in the 2012
 Bonding Bill
- State Bonded building projects can include 5% Solar Energy Equipment for Solar Electric and Solar Thermal that is Made in Minnesota
- □ Governor/Agency support EO 11-12





So how does the much larger market for solar in the private Commercial and Industrial (C&I) Sector Grow? PACE



Minnesota Solar Energy Industries Association



- Family Supporting Jobs Now
- Jobs Grow Across the State
- Energy Independence Adds Jobs
- Public Building Solar Makes Minnesota an Investment Target
- New Reliable Grid and More Solar Jobs



Good Paying Jobs All Over Minnesota – Jobs that support families:

- Installing solar projects;
- Designing and engineering solar products;
- Manufacturing materials, equipment, and components;
- Training solar professionals; and
- Developing and financing projects

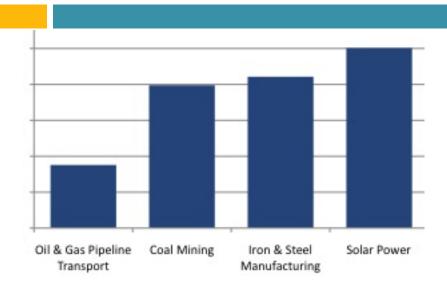


Lots of Jobs

- At least 3,000 family wage jobs (most manufacturing) thru 2020 with 58 MW of Solar each year (DOE's National Renewable Energy Lab's Jobs and Economic Development Impacts (JEDI) calculator).
- 14.1 jobs per \$1M invested is created by solar compared to 5.3 jobs for fossil fuel energy development (Political Economy Research Institute PERI at the University of Massachusetts)
- Inclusion: The solar industry creates job across all skill and educational levels, with significant opportunity for workers with lower skill and education credentials. (PERI)

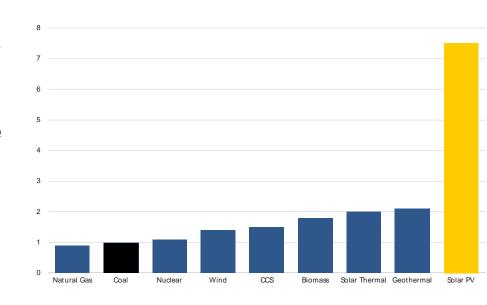






100,237 Americans work in solar today

Solar employment grew 6.8% while the general economy grew 0.7%





Minnesota's Environmental Community

- Environment Minnesota, Sierra Club, Fresh
 Energy and others
- Selected by MN Environmental Partnership as a priority issue in 2011 and 2012
- Membership audience of nearly 500,000
 Minnesotans
- Long legacy of successful environmental and clean energy policies



So – What's in it for us???

- Transitioning to cleaner energy generation to address climate change and air quality concerns
- Build credibility with the public
- Build local economies and create good jobs
- Build alliances and relationships for future work



How Environmental Organizations are Helping

- Grassroots mobilization to support lobbying and outreach efforts
- Access to professional lobbyists and communications staff
- Technical expertise
- Positive branding and additional credibility for the coalition



What's next for the coalition?

- □Solar Works for Minnesota
 - Celebrating and promoting our sucesses
 - Community solar projects already underway
 - Expand participation and access for rural communities to use solar
- Clean Energy & Jobs Campaign
 - Expand Minnesota's Renewable Energy Standard to 40% by 2050

TUNE IN NEXT WEEK -- 2pm Central/12pm Pacific!

Turning Momentum into a Solar Victory:
Strategy, policy, and the 2013 Success



Erin Stojan Ruccolo, Fresh Energy John Farrell, Institute for Local Self Reliance

