2025 Energy Action Plan Update

September 24, 2015

Presentation to LEC Commission

Justin Kaster, CEO, 2100 Advisors

2025 Working Group Idea

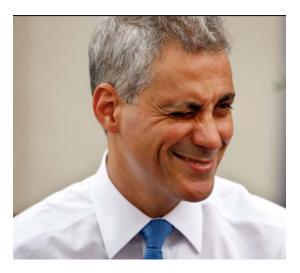


An innovationfocused organization that functions as "the glue" in the advanced energy economy

A Story Of Four People









The Problem

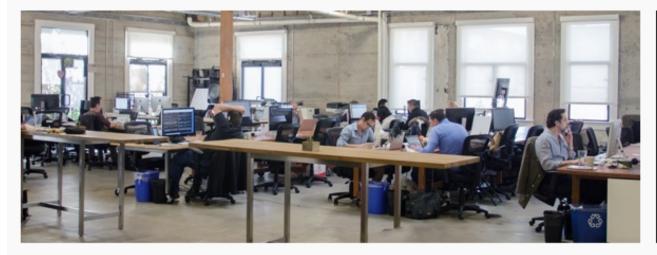
Minnesota Losing Ground



"While it enjoys a good position currently with high productivity and innovation, [Minnesota's] competitiveness is eroding.

Dr. Michael Porter, 2011 Most cited author in business and economics

SmartThings Example



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Spark Example

'Internet of Things' startup Spark moves to San Francisco

Jul 8, 2014, 9:05am CDT | UPDATED: Jul 8, 2014, 9:10am CDT

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Katharine Grayson Staff reporter-Minneapolis / St. Paul Business Journal Email | Twitter | Google+

Spark Labs Inc., which makes a Wi-Fi enabled board for connecting objects to the Internet, has moved its headquarters to San Francisco after raising \$4.2 million in



75F Example

Mankato-based 75F lands \$100K investment from AOL co-founder Steve Case

By Stephen Montemayor | 10/10/14

Mankato-based 75F is on a hot streak. The startup company just landed its second sixfigure prize within the last month in head-to-head competition with other fledgling companies. On Tuesday, the producer of wireless heating and cooling management won the Minneapolis leg of a five-city pitch competition hosted by AOL co-founder Steve Case. Last month, 75F won a total of 105,000 - including the50,000 grand prize – in the



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Deepinder Singh, CEO of 75F, makes his pitch during Tuesday's "Rise of the Rest Road Tour" stop in Minneapolis.

latest Minnesota Cup entrepreneurial competition.

What This Organization Could Do

- 1. Play point on federal grants
- 2. Help coordinate pilot projects
- 3. Engage industry and cities
- 4. Act on future trends
- 5. Connects stakeholders to more resources

The Opportunity

JCESR Example: \$120 Million from DOE

JCESR Joint Center for Energy Storage Research



DOE National Laboratories

- Argonne National Laboratory
- Lawrence Berkeley National Laboratory
- Pacific Northwest National Laboratory
- Sandia National Laboratories
- SLAC National Accelerator Laboratory

Universities

- Northwestern University
- University of Chicago
- University of Illinois, Urbana-Champaign
- University of Illinois, Chicago
- University of Michigan

Industry

- Dow Chemical Co.
- Applied Materials, Inc.
- Johnson Controls Inc.
- Clean Energy Trust

Individual Members' Home Institutions

- Massachusetts Institute of Technology
- University of Waterloo

Sample Organizations: Chicago



+CLEAN ENERGY TRUST



These organizations have attracted and created:

- 1. New funding
- 2. Energy industry events
- 3. Corporate partnerships
- 4. Talent retention and attraction
- 5. National and global relationships

Minnesota Has The Potential



We are lucky to have:

- 1. Top 3 per capita Fortune 500 presence
- 2. Innovative policymakers
- 3. Great natural resources
- 4. Strong universities

What's Missing in Minnesota?



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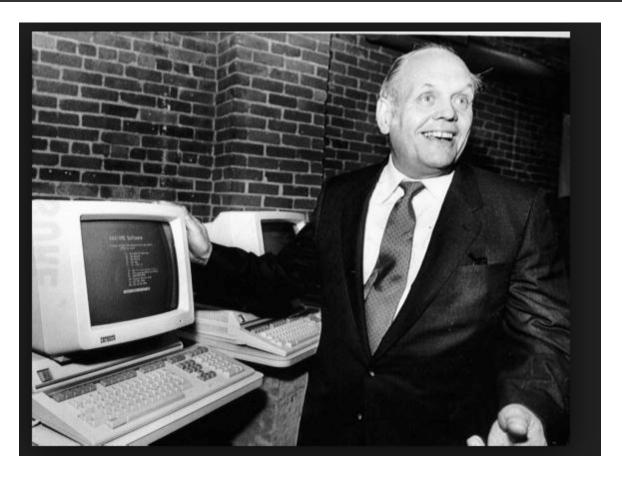
Why Energy And Why Now?

Designing A Great Future



- Global population is skyrocketing
- Per person income growth is increasing
- Future technology will be transformative

A Cautionary Tale



"There is no reason anyone would want a computer in their home." Ken Olsen, founder of Digital Equipment Corporation, 1977

How Can We Do This?

Near-Term Actions Steps

- 1. Best Practices And Business Model
- 2. Map Key Stakeholders
- 3. Phase 1 Milestones

4. Phase 1 Seed Funding

5. Get a "Win"