Developing an Effective State Clean Energy Program: A Blueprint for Success

State Clean Energy Program:
An Overview of Best Practices

Mark Sinclair, Esq.
Executive Director
Clean Energy States Alliance

April 2, 2009

Clean Energy States Alliance

- Multi-state coalition of clean energy programs that work together to advance clean energy technologies through:
  - Information Exchange
  - Partnership Development
  - Joint Projects
- Nonpartisan, collaborative network of states pooling information and fostering best practices

www.cleanenergystates.org

CleanEnergy States Alliance

Clean Energy Funds

- What:
  - Fund collected typically through surcharge on electricity rates
  - New federal SEP resources now available to seed new state clean energy programs
  - Priority of SEP resources: for **both** energy efficiency and renewable energy project deployment
  - Not to supplant existing state clean energy funding
- Why Renewable Energy focus?
  - High upfront costs
  - Serious market barriers
  - Utilities lack incentives to promote RE

CleanEnergy States Alliance

Advantages of Funds

- Multiple sources of funding (federal stimulus dollars, surcharges on electric rates, pollution tax)
- Maximum flexibility in use of funds to target unique opportunities
- Cost can be fixed and known in advance
- BUT does not eliminate need for other complementary energy policies

CleanEnergy States Alliance

State Funds: Comprehensive Support for Clean Energy Technologies

- Solar
- Wind
- Fuel Cells
- Biomass
- Distributed Generation
- Energy Efficiency
- Green Buildings
- Small Hydropower
- Ocean Energy

CleanEnergy States Alliance

Setting Duration of the Fund

- RE markets only transformed with significant efforts
- Programs generally established with lengthy duration
- No defined end-date or 5-10 years
- Use one-time federal ARRA funding to create sustainable, long-term programs
  - Revolving loans, investments
- Creating successful, long-term state programs will attract future federal dollars from climate programs, national RPS, etc.

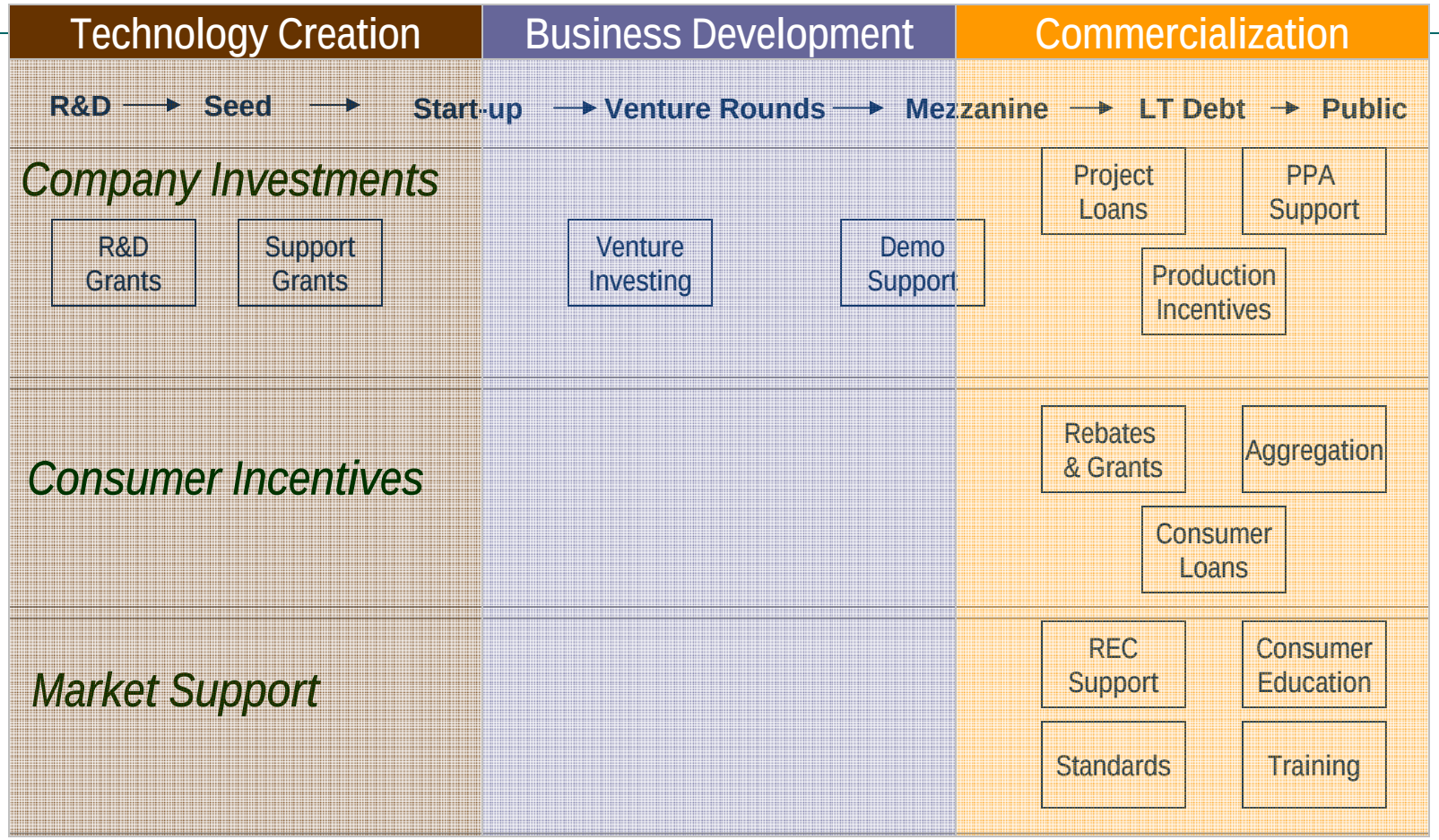
CleanEnergy States Alliance

State Fund Strategic Models

- Project Development Model:
  - Incentives & grants to directly subsidize project installation (California, New Jersey)
- Investment Model:
  - Loans & equity investment in companies & projects (Connecticut, Pennsylvania)
- Industry Development Model:
  - Business development grants, marketing support, technical assistance & education to build industry infrastructure (Wisconsin, New York)
- Research & Development Model:
  - California & New York, in part; Minnesota
- Combination of approaches (Massachusetts)

CleanEnergy States Alliance

Individual State Fund Investing Activities

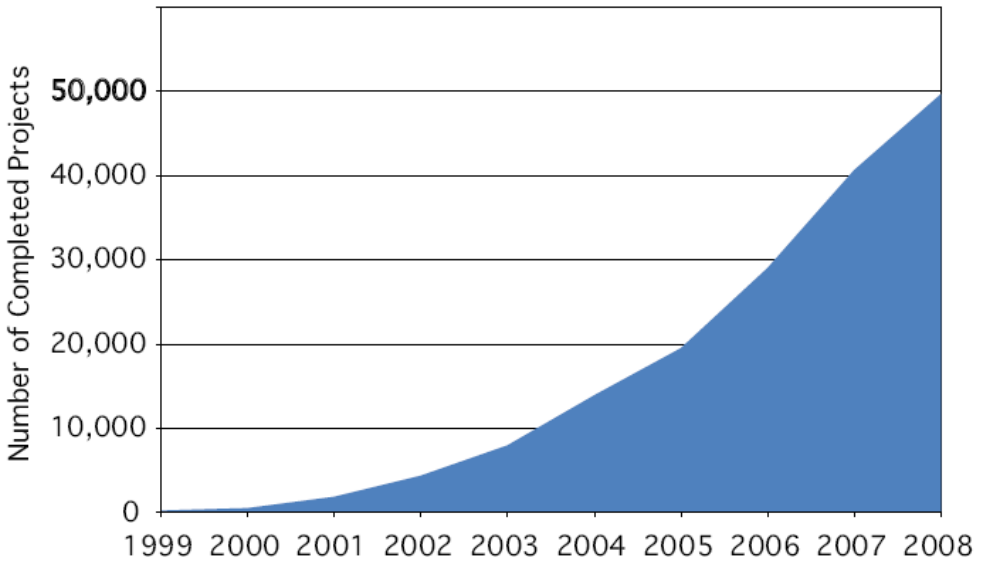


CleanEnergy States Alliance

Results that Matter: CESA RE Database:

- States with dedicated funds to finance clean energy projects
  - Invested $1.5 billion in last 10 years
  - Investment leverage: more than $2.5 billion in other investment
  - Over 50,000 RE projects
  - 1.7 GW clean energy capacity installed
  - Primary driver for grid-connected PV; in 2007, more than 75% of installed systems were installed in states with funds
  - $6 billion state funding for next 10 years plus new federal stimulus funding ($3 billion for State Energy Programs)

FIGURE 1B **Cumulative Number of State Clean Energy Fund Projects**



Source: CESA

CleanEnergy States Alliance

Program Types

- Rebates
- Competitive grants
- Production incentives
- Low-interest loans
- Venture capital investments
- Infrastructure building grants (training programs, installer certification, resource assessment studies)
- Information & education
- Research & development

CleanEnergy States Alliance

Disbursement Options

- Competitive solicitations
  - Focus fund activities
  - Encourage competition
  - Open, less politically sensitive selection process
- First-come
  - Useful for large number of smaller awards (solar PV program)
  - Standard technology applications
  - Reduce administrative burden
- Bilateral Negotiation
  - Negotiate as proposals come in

CleanEnergy States Alliance

Effective Administration

- Fundamentals:
  - Program design guided by clear public policy goals
  - Comprehensive knowledge of RE markets
  - Minimize transaction costs
  - Able to adapt quickly and flexibly to opportunities
  - Consensus of key stakeholders on goals, structure, program design
- Options:
  - Government administration (state energy office)
  - Independent, non-governmental organization or public benefit corporation (Energy Trust of Oregon, NYSERDA)

CleanEnergy States Alliance

Administrative Costs & Staffing

- Dedicated staff required for success (planning, program development, contract management, etc.)
- Costs increase in relation to number and complexity of programs
- Costs decrease with clear funding guidelines, application procedures, and evaluation mechanisms upfront
- Minimum of 5-10% of funds may be needed to cover administrative costs

CleanEnergy States Alliance

Program Evaluation

- Essential element for successful program
- Timely to allow for program design changes
- Results need to be linked to program goals and measurable (not necessarily quantitative): kWh produced, CO2 reductions
- Results unbiased, relevant, easy to use

CleanEnergy States Alliance

Program Findings

- **No Single Program is Optimal**: Use multiple program designs and be willing to experiment
- **Goals Should Drive Program Design**: Link program design & fund allocation to strategic plan goals (MA, PA, and OR Funds guided by strategic & business plans)
- **Discretion & Flexibility Can Enhance Success**: Capitalize on rapid learning about how best to support clean energy markets
- **Markets for Smaller, Distributed Projects are More Difficult to Build**
- **Work Closely with Utilities**

CleanEnergy States Alliance

Technology-Specific Support: Wind

- Common Programs for Wind Projects
  - Production incentives for large wind projects (most funds)
  - Technical and permitting assistance (MA, OR, NY)
  - Rebates for small residential wind (CA, MA, WI, NY, OR)
  - Assistance to host communities (MA, NY)
  - Wind R&D – offshore wind studies; wind integration studies (MA, NJ, MN)

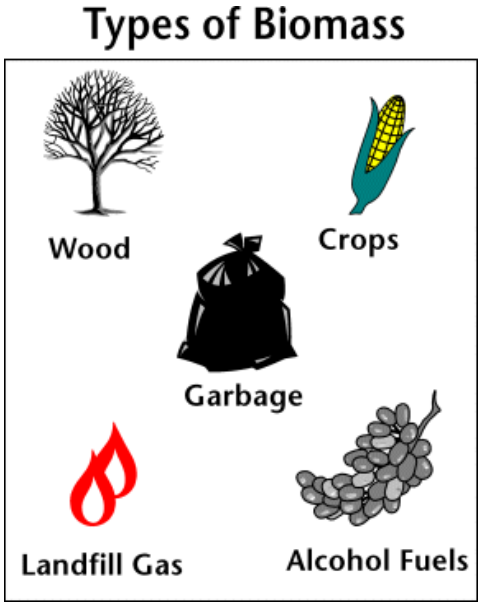
CleanEnergy States Alliance

Technology-Specific Support: Solar

- Rebate programs (most states)
- Low interest loans (NJ, OR)
- Technical support (WI, NY)
- Installer training & certification (NY)
- High-value PV installations (NY)
- Low income housing (MA, CA, NJ)
- Funding of PV manufacturers (MA)
- Marketing (CA)

CleanEnergy States Alliance

Technology-Specific Support: Biomass



- Programs for Biomass
  - Incentives & buy-down grants for biogas projects on dairies (OR, WI, CA)
  - Outreach, technical assistance & feasibility studies (WI)
  - Business & marketing grants (WI)
  - Overcoming regulatory barriers such as streamlining interconnection process (OR)

CleanEnergy States Alliance

Contact Information

Mark Sinclair
Clean Energy Group
Clean Energy States Alliance
msinclair@cleanegroup.org

www.cleanenergystates.org
www.cleanegroup.org
(802) 223-2554

CleanEnergy States Alliance

CLEAN ENERGY. LET'S MAKE MORE.