STATE LEVEL INCENTIVES FOR BIOGAS-FUEL CELL PROJECTS

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www.americanbiogascouncil.org
FIGURES
* FOUNDED IN 1988
* SALES: $25-35 MILLION
* 75 EMPLOYEES

ACTIVITIES
* BIOGAS CONSULTANCY & SUPPORT
* BIODEGRADATION TESTING AND WASTE MANAGEMENT CONSULTANCY
* DESIGN & CONSTRUCTION OF ANAEROBIC DIGESTION PLANTS FOR ORGANIC WASTE AND RESIDUALS
• NO FORMAL STATE CHAPTERS - YET
• MEMBER DRIVEN EFFORTS
• LOCAL “TOUCH” IS ESSENTIAL
• REAPPLY BEST PRACTICES/POLICIES
• PROMOTE/ADVOCATE FOR POLICY PARITY FOR BIOGAS

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DYNAMICS SHAPING STATE INCENTIVES

• BUDGET WOES, ARRA FUNDS NOW RUNNING OUT

• ELECTIONS

• DISILLUSIONMENT, UNSUCCESSFUL PROJECTS

• ECONOMIC DEVELOPMENT
  – NEW/REVIVE MANUFACTURING
  – RETAIN JOBS
  – NEW COMPANIES – IN-STATE COMPANIES FAVORED EVEN IF NO EXPERIENCE; INCREASED PROJECT RISK?

• ENERGY COSTS

• SYNERGY WITH STATE BIOMASS RESOURCES

• ENVIRONMENTAL CONCERNS/OBJECTIVES

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Grant Programs for Renewables

www.dsireusa.org / March 2012

Notes: This map only addresses grant programs for end-users. It does not address grants programs that support R&D, nor does it include grants for geothermal heat pumps or other efficiency technologies. The Virgin Islands also offers a grant program for certain renewable energy projects.
Public Benefits Funds for Renewables

www.dsireusa.org / May 2012 (estimated collections)

- State PBF With Ongoing Collections
  - OR: $13.8M in 2011
    $197.8M from 2001-2017**
  - CA: $411M in 2011
    $4,850M from 1998-2016
  - MT: $1.2M in 2011
    $18.5M from 1999-2017*
  - MN: $19.5M in 2011
    $339M from 1999-2017*
  - WI: $7.6M in 2011
    $97.7M from 2001-2017*
  - ME: $434,000 in FY2011
    $4.6M from 2002-2011
  - RI: $4.7 in FY2011
    $32M from 2004-2013
  - MA: $23M in FY2011
    $510M from 1998-2017*
  - VT: $2.3M in 2011
    $39.2M from 1999-2017
  - NJ: $22M in FY2011
    $494M from 2001-2017*
  - DE: $3.5M in FY2011
    $51.3M from 1999-2017*
  - OH: None in 2011
    $35.4M from 2001-2010
  - DC: $1.8M in FY2011
    $8.6M from 2004-2012
  - PR: $20M in FY2012
    $290M from 2011-2020

- State PBF Closed to New Collections
  - HI: $2.6M in 2011
    $23.7M from 2009-2017*
  - IL: $5.5M in FY2011
    $96.8M from 1998-2015
  - MI: $5M in FY2011
    $47.7M from 2001-2017*
  - WI: $7.6M in 2011
    $97.7M from 2001-2017*
  - NY: $15.5M in FY2011
    $176.1M from 1999-2016
  - PA: $950,000 in 2011
    $65.3M from 1999-2012
  - DE: $3.5M in FY2011
    $51.3M from 1999-2017*

18 states + DC & PR have public benefits funds ($7.8 billion by 2017)

(Note: Slides 2-10 explain the methodology

* Fund does not have a specified expiration date
** The Oregon Energy Trust is scheduled to expire in 2025
Methodology

The preceding map generally includes only state funds supported by utility ratepayer surcharges, as opposed to funds supported by legislative appropriations. Federal funding, such as funding from the American Recovery and Reinvestment Act of 2009, is not included.

Sources of Uncertainty

- Some funds support both renewables and energy efficiency without clear guidance on how future funding will be allocated to each area.
- In some states, annual funding is tied to retail sales of electricity and/or natural gas, making future projections somewhat speculative.
- In some states, a portion of the fund may be seized by state officials for purposes other than renewable energy development.
- Future additions to many funds may be forthcoming in the form of alternative compliance payments (ACPs) under state renewable portfolio standard (RPS) policies, or with the auction of carbon emissions allowances as part of the Regional Greenhouse Gas Initiative (RGGI).
ALASKA: UP TO $50 MILLION/YR THRU 2023
CALIFORNIA: CEC, TYPICALLY $12-25 MILLION PER YEAR
KENTUCKY: AMOUNT VARIES, FARMS ONLY
MASSACHUSETTES: UP TO $400,000
MINNESOTA: UP TO $500,000, $2.5 MILLION POT
NEW YORK: NYSERDA GRANTS, AMOUNT VARIES
OREGON: ENERGY TRUST, GRANT IS % OF ABOVE-MARKET ENERGY COSTS
PENNSYLVANIA: UP TO $2 MILLION, $165 MILLION MULTI-YR BUDGET
RHODE ISLAND: UP TO $750,000
VERMONT: CASE BY CASE
WISCONSIN: TBD JUNE 2012; NORMALLY >$10 MILLION/YR

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Note: This map does not include loan programs for geothermal heat pumps or other energy efficiency technologies. The U.S. Virgin Islands also offers loans for certain renewable energy technologies.
• BEST IN CLASS PROGRAMS: PENNSYLVANIA, OREGON, NEW YORK

• SOURCES: STATE ENERGY OFFICES, ECONOMIC DEVELOPMENT COMMISSIONS, PUBLIC BENEFIT FUNDS

FINANCING CHALLENGES

• CONVENTIONAL LENDERS MAY REQUIRE 100%+ COLLATERAL, PERSONAL GUARANTEES, BONDING – EVEN WITH LOAN GUARANTEES

• PROJECTS OFTEN TOO SMALL, LOW MARGIN TO ATTRACT UTILITIES, VENTURE CAPITAL OR JUSTIFY COMPLEX TAX-EQUITY INVESTMENT APPROACHES

• VERY FEW TECHNOLOGY PROVIDERS OR EQUIPMENT MANUFACTURERS PROVIDE FINANCING OPTION

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Net Metering
www.dsireusa.org / June 2012

43 states + DC & PR have adopted a net metering policy

State policy applies to certain utility types only (e.g., investor-owned utilities)

* State policy applies to certain utility types only (e.g., investor-owned utilities)

Note: Numbers indicate individual system capacity limit in kW. Some limits vary by customer type, technology and/or application. Other limits might also apply.

This map generally does not address statutory changes until administrative rules have been adopted to implement such changes.
• NEED FOR STUDY OF STATES WITH HIGH OR NO-LIMIT NET METERING – GOOD OR BAD RESULTS?

• IN MANY STATES, BIOGAS PROJECTS RECEIVE LESS FAVORABLE TREATMENT UNDER NET METERING RULES COMPARED TO SOLAR
Tax Credits for Renewables

www.dsireusa.org / March 2012

Notes: This map does not include corporate or personal tax deductions or exemptions; or tax incentives for geothermal heat pumps.

24 states offer tax credits for renewables
Property Tax Incentives for Renewables

www.dsireusa.org / March 2012

38 States + PR offer property tax incentives for renewables

- Red: State exemption or special assessment only
- Yellow: Local governments authorized to offer exemption (no state exemption or assessment)
- Orange: State exemption or special assessment + local government option

Puerto Rico
**Property Assessed Clean Energy (PACE)**

www.dsireusa.org / May 2012

28 states + DC authorize PACE (27 states have passed legislation and HI permits it based on existing law)

*The Federal Housing Financing Agency (FHFA) issued a statement in July 2010 concerning the senior lien status associated with most PACE programs. In response to the FHFA statement, most local PACE programs have been suspended until further clarification is provided.*
RPS Policies
www.dsireusa.org / May 2012

- Renewable portfolio standard
- Renewable portfolio goal
- Solar water heating eligible

- Minimum solar or customer-sited requirement
- Extra credit for solar or customer-sited renewables
- Includes non-renewable alternative resources

29 states +
DC and PR have an RPS
(8 states have goals)
RPS – GOOD NEWS, BAD NEWS

• MANY STATES ALREADY MEETING/EXCEEDING RPS TARGETS

• ONCE MET, PPA AND REC RATES PLUMMET

• VERY FEW CARVE OUTS FOR BIOGAS; WIND/SOLAR SET ASIDES CROWD OUT BIOGAS PROJECTS IN MANY STATES

• ONLY A FEW STATES CONSIDERING INCREASING TARGETS

• TARGET ENFORCEMENT?? COST OF NON-COMPLIANCE UNCLEAR

• NON-RENEWABLE ALTERNATIVE “CLEANER” TECHNOLOGIES MAKING IN-ROADS
Interconnection Policies

www.dsireusa.org / May 2012

Notes: Numbers indicate system capacity limit in kW. Some state limits vary by customer type (e.g., residential/non-residential). “No limit” means that there is no stated maximum size for individual systems. Other limits may apply. Generally, state interconnection standards apply only to investor-owned utilities.
INTERCONNECTION ISSUES

- MANY RULES WRITTEN MAINLY FOR EITHER LARGE, TRANSMISSION SCALE OR SMALL RESIDENTIAL PROJECTS; BIOGAS PROJECTS OF 0.5-2 MW SOMETIMES AN AFTERTHOUGHT

- SOME STATES ALLOW RESTRICTIVE INTERCONNECTION AGREEMENTS – FORCED TO SELL ALL AT LOW RATES, BUY BACK AT RETAIL AND GIVE UP RECs; LIMITS ON OR NON-ALLOWANCE OF WHEELING TO 3RD PARTIES

- COSTS NORMALLY 10%+ OF PROJECT COST, UNREGULATED, AND ASSETS BELONG TO UTILITY
State Spotlight: California (RPS, Biomethane, CEC)

- March 16: CEC proposed wholesale moratorium on biomethane projects
- Biomethane no longer would qualify for RPS; biogas to electricity unaffected
- Reason: CEC wants to stop new non-CA biomethane projects from developing and selling the gas to CA utilities (cheaper than CA biomethane)
- Pros and Cons—but mostly Cons (economic, confusing, negative signal to renewables industry and investors)
- ABC took a strong position against the proposed moratorium citing stoppage of important CA economic activity and the process (legislature should handle, not CEC)
- 65 public comments filed
- Hearing today at 12pm CT: http://www.energy.ca.gov/webcast/
- http://www.energy.ca.gov/portfolio/documents/#03282012
State Spotlight: Connecticut, Setting an Example

- Public Act No. 11-217
- Passed late 2011
- Targets commercial operations generating more than 104 tons of organic waste per year
- Less than 6 months after CT’s 2nd organics recycling facility establishes service, waste generators must source separate
- For waste generators that have a recycling facility within 20 miles, their organics must also be recycled within those 20 miles.