# We Energies Customer-Owned Renewable Generation New Business Model (NBM) Workshops

## Large Stakeholder Workshop: Solar, Wind & Biomass

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# Workshop Agenda

- 9:30–9:40 **Introductions**
- 9:40–9:50 **Goals for the Day/Project Overview**
- 9:50–10:20 **Overview of Small Workshop Findings**
- 10:20–11:00 **Identify Priority NBMs**
- 11:00–11:30 **Break: Nature Walk**
- 11:30–12:45 **Priority NBM Discussion**
- 12:45–1:00 **Conclusions and Next Steps**
- 1:00–2:00 **Networking Lunch**

# Introductions

- **We Energies**
  - Bob Reagan
  - Jessica Thibodo-Johnson
  - Teresa Eggleson
- **ICF International**
  - Rahul Young
  - Claire Cowan
- **Workshop Attendees**

# Goals for the Day

- Meet other interested stakeholders.
- Learn from combined expertise in the room.
- Identify NBMs with greatest potential for successful deployment in Wisconsin.
- Determine actions to overcome key NBM barriers.
- Identify how We Energies can best support NBM deployment.
- What else?/Why are you here?

# Ground Rules for the Workshop

- The whole day is interactive.
- This is not a lecture.
- There are no dumb questions.
- Take advantage of all of the different perspectives and experiences in the room.
- Tell us what we can do to make this better.

# NBM Program Objectives

- Research and analyze renewable generation business models that have been implemented or proposed in Wisconsin and nationally.
- Develop new business model(s) or modifications to existing models for implementation in We Energies service territory.
- Reduce barriers to new business models for customer owned renewable generation projects.

# What Is a New Business Model?

- Complements technology innovation.
- Addresses strategies for overcoming existing market barriers such as high initial system costs.
- Promotes repeatability in the marketplace.
- Forms new partnerships and new ways of doing business.

# NBM Program Steps—Part I

- **Report—Customer-Owned Renewable NBM Adopted Elsewhere**
- **4 Small Stakeholder Workshops**
  - Tuesday, March 27: Biomass/Wind
  - Wednesday, March 28: Wind
  - Thursday, March 29: Solar
  - Tuesday, April 3: Solar/Wind/Biomass (Appleton)
- **1 Large Combined Stakeholder Workshop**
  - Thursday, April 26
- **Workshop Summary Report**

# NBM Program Steps—Part II

- Identify NBMs with the strongest stakeholder support and greatest potential for success in Wisconsin.
- Determine how We Energies can best support NBMs.
- Develop Lessons Learned Report.

# Small Workshop Overview

# Solar Business Models

- **Third party ownership by company or member cooperative**
  - Third party offers “hassle-free” solar by owning, installing, and maintaining a solar system at a customer facility.
- **Solar new construction**
  - Bundling solar technology into new single family home or development, with financing provided through home mortgage.
- **Solar store**
  - Selling solar through retail outlet that provides information, financing, and installation services.
- **ESCO integration**
  - An energy services company (ESCO) offers renewable energy installations as part of the energy management services it provides to large commercial and industrial facilities.

# Solar Business Model Barriers

| Model | Barriers |
|---|---|
| Third party ownership | ▪ Need for policy action to clarify legal/tax issues re: provision of services to nonprofits<br>▪ Launching business entails high upfront costs (legal, systems, etc.)<br>▪ Relatively low electric rates and solar incentives in WI |
| Solar new construction | ▪ Lack of consumer demand/knowledge<br>▪ Focus on first cost rather than lifecycle cost<br>▪ Requires collaboration between diverse set of stakeholders |
| Solar store | ▪ Retailer risk perceptions, unwillingness to commit floor space, lack of expertise |
| ESCO integration | ▪ Relatively low electric rates and solar incentives in WI |

# Addressing Solar Barriers

## Suggestions for support

- Incentives to reduce the cost of financing for companies launching NBM.
- Assistance with up-front legal/setup costs.
- Assistance with NBM marketing/outreach efforts.
- Educational initiative targeting financial institutions to address risk perception issues and make it easier for projects to obtain financing.
- Education to promote customer acceptance of solar energy and address misperceptions.

# Addressing Solar Barriers

- **Suggestions for policy change**
  - Legislative or PSCW clarification of third party ownership opportunities for nonprofits.
  - Mandated statewide standards for solar ready new construction.

# Digester Business Models

- **Third party ownership**
  - Third party finances, installs, and maintains a digester and genset at a farm; farmer either enters into lease-to-own arrangement, or receives long-term fixed price contract for heat/electricity.
- **Community digester**
  - Multiple farms each own their own digester with biogas piped to a central natural gas pipeline or genset.
- **Direct ownership**
  - Farm owns anaerobic digester and genset and sells electricity to a utility under the terms of a power purchase agreement (PPA).

# Digester Business Model Barriers

| Model | Barriers |
|---|---|
| Third party ownership | ▪ Relatively low electric rates and solar incentives in WI<br>▪ Launching business entails high upfront costs (legal, systems, etc.) |
| Community digester | ▪ High cost of debt, particularly for off balance sheet financing<br>▪ Uncertainty about location of optimal sites (requires mapping of farm locations, gas pipelines, etc.)<br>▪ Need for operator training/education to avoid groundwater contamination<br>▪ Difficulty in accessing waste streams from outside sources that could boost production (no market, permitting issues) |
| Direct ownership | ▪ High cost of debt, particularly for off balance sheet financing<br>▪ Standard PPAs not well-suited to digester applications<br>▪ Need for operator training/education to avoid groundwater contamination<br>▪ Difficulty in accessing waste streams from outside sources |

# Addressing Digester Barriers

- **Suggestions for support**
  - Simplified PPA for digester projects that provides appropriate price signals and reduces administrative burdens.
  - Educational initiative targeting financial institutions to address risk perception issues and make it easier for projects to obtain financing.
  - Development of a statewide feasibility study that maps farm locations (and other operations with digester potential food processing plants, breweries, etc.) against gas pipelines to identify areas of greatest potential for community digester model.

# Wind Business Models

- **Community wind with power sold to a third party**
  - A utility-scale wind project that is at least partially owned by local investors. Ownership structures include raising equity through the sale of shares to local investors or bringing in a tax-motivated investor to provide an up-front equity investment, with ownership "flipping" to the local owners after tax credits have expired.
- **Behind-the-meter community wind**
  - A wind project owned by a public entity (state, county or municipal government agency, school, university, tribe, etc.) to meet its own electricity needs.
- **Behind-the-meter wind for C&I facilities**
  - A wind project owned by a large commercial or industrial facility.

# Wind Business Model Barriers

| Model | Barriers |
|---|---|
| Community wind | ▪ Relatively low electric rates and wind incentives in WI<br>▪ Tight turbine supply market<br>▪ High cost of debt/difficulty arranging financing<br>▪ High administrative costs due to siting & permitting complexity<br>▪ Local opposition, not in my back yard! |
| Behind-the-meter wind projects (public or private ownership) | ▪ Relatively low electric rates and wind incentives in WI<br>▪ High cost of debt/difficulty arranging financing<br>▪ Sites with greatest interest may not be located where wind resource is viable<br>▪ Difficulty obtaining warranty for single turbine project |

# Addressing Wind Barriers

- **Suggestions for support**
  - Educational initiative targeting financial institutions to address risk perception issues and make it easier for projects to obtain financing.
  - Continue/expand educational efforts to increase public support for wind power (project tours, etc.)

# Addressing Wind Barriers

- **Suggestions for policy change**
  - Statewide policies to promote community wind:
    - Standardized tariff like Minnesota's C-BED tariff that offers a front-loaded power purchase price to facilitate project financing.
    - Policies to streamline and accelerate the permitting/siting process for community wind projects.
    - Establishment of a revolving loan fund to provide low- or no- interest financing for community wind projects.

# Addressing Renewable Barriers

- **Cross-cutting suggestions for policy change**
  - Advanced renewable energy tariff.
  - Carbon tax combined with tax reductions in other areas to offset the economic impact.
  - Updating the 1998 Wisconsin *Climate Change Action Plan* so that it accurately reflects current economics of renewable energy projects.

# Identifying Priority NBMs

# Discussion: Identifying Priority NBMs

- For each resource (solar, biomass, wind), which NBMs show the greatest promise for promoting customer-sited renewable energy development in Wisconsin?
- Given the NBM barriers that have been identified, which NBMs seem most feasible under existing policy?
- Which NBMs are you most interested in developing and supporting?

# Priority NBM Discussion

# Discussion Questions for Each Priority NBM

- Brainstorm at least 3 feasible and concrete actions that can be taken today to promote this NBM.
- Identify how each action addresses a key barrier facing the NBM.
- Identify the stakeholders that must be involved in taking these actions.

# Action Plan

- What support do you need from the people in this room to make a renewable NBM happen?
- What will you personally do over the next 3 months to further renewable NBMs?

# Next Steps

- Workshop minutes and attendee contact information will be distributed.
- A report summarizing workshop findings will be developed and shared with participants.
- We Energies will use stakeholder feedback from all NBM workshops in determining approach for future NBM support.

# We Energies Contact Information

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# Thanks for Coming!