

# *LMOP Workshop: Financial Considerations and Incentives Discussion*

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# ***AGENDA***

- Developer or Self-Develop
- Revenue Streams for LFG Energy Projects
- Renewable Portfolio Standards
- Renewable Energy Pricing/Incentives
- Financial Incentives in Texas for LFG Energy Projects





# ***Risk Versus Reward***

- Municipal landfill may self-fund the project.
- Landfill may use a developer to fund the project.
  - What will be the responsibilities of the owner, developer, and site operator?
  - These roles vary by project but should be decided prior to the RFP being issued. Project roles typically depend upon the level of equity contribution by each party.





# ***Revenue – Electrical Sales***

- Refers to the sale of electricity for energy, capacity and ancillary services. Typical mechanisms:
  - Sell to local utility at a regulated buy-back rate (typically range from 2.5 to 7 cents/kwh)
  - Sell to wholesale electricity market (if in a deregulated region)
  - Sell to third party qualified buyer
  - Self-generation (or net metering): Electricity used to offset on-site load – electricity that doesn't have to be purchased from the utility
  - Renewable energy credits (RECs) may be available in some states





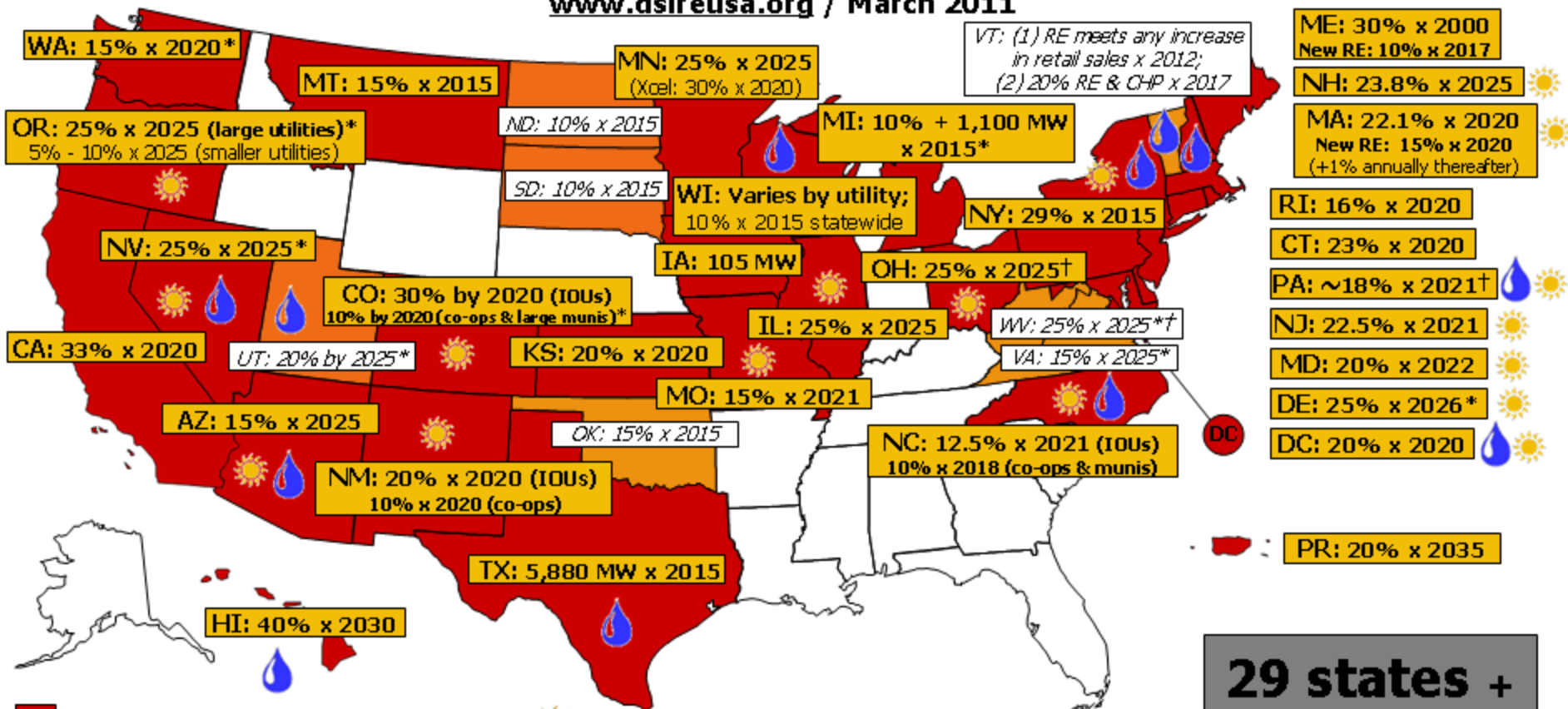
# ***Revenue – LFG Sales***

- LFG sales to an end-user are the primary source of revenue for direct-use projects
- LFG price is often indexed to the price of natural gas – typically around \$2 to \$4/MMBtu
  - Fluctuates significantly based on contractual arrangement
- Price paid by end-user for LFG must provide a cost savings that outweigh energy equipment modifications (boilers, heaters, kilns, etc.)



## RPS Policies

[www.dsireusa.org](http://www.dsireusa.org) / March 2011



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**  
(7 states have goals)



# ***Premium Pricing for Renewable Energy***

- Premium pricing available for renewable energy sources:
  - Renewable Portfolio Standard
  - Renewable Portfolio Goal
  - Voluntary green pricing program
- Provide additional revenue above available market or regulated electricity rate





# ***Renewable Energy Credits***

- Sold by electricity generators to utilities, “munis” or coops to meet state RPS in compliance markets
- Sold to consumers/industries seeking to reduce their environmental footprint or encourage renewable energy production. Typically sold through voluntary markets.
- Offered in 1MWh units
- Require verification so that the renewable attributes of the electricity are not being sold more than once
- Involves significant record-keeping







# ***Production Tax Credit***

- 1.1 cent/kwh corporate tax credit
- Renewable electricity must be sold by a taxpayer to an unrelated person during the taxable year.
- Projects must “begin construction” by December 31, 2013 – defined as:
  - “physical work of a significant nature” has started
  - 5% of the total cost of the facility has been incurred
  - IRS issued guidance on this criteria in April
- Credit is available for 10 years after facility is placed in service with no maximum number of credits
- Requires a third party power sales agreement





# *Investment Tax Credit*

- Tax-paying entity may take the investment tax credit in lieu of the production tax credit
- Projects must “begin construction” by December 31, 2013 – defined as:
  - “physical work of a significant nature” has started
  - 5% of the total cost of the facility has been incurred
  - IRS issued guidance on this criteria in April
- Investment Tax Credit is an irrevocable one-time election
- Valued at 30% of the costs attributed to the facility
  - Excludes other project costs such as transmission lines





# ***BECC and NADBank***

- Border Environment Cooperation Commission (BECC).
  - Since 1995, the BECC has assisted border communities by **designing and certifying infrastructure projects** on the border, based on set criteria established by the United States and Mexico.
  - <http://www.becc.org/>
- North American Development Bank (NADB)
  - Launched in 1994, NADB is a financial institution, capitalized and governed equally by the US and Mexico which finances environmental projects in the border region.
  - <http://www.nadb.org/>





# North American Development Bank



July 2013



# Financing Activity Overview

## NADB Product Portfolio

### Loans

- Market-rate lending
- Financing up to 85% of project cost with terms as long as 25 years in dollars and pesos
- Focus on financial feasibility of the projects (credit & risk analysis, payment source and structure, and credit support)

### Grants

- Grants allow NADB to expand the pool of eligible borrowers in border municipalities where debt financing options are often limited
  - ✓ EPA-funded Border Environment Infrastructure Fund (BEIF)
  - ✓ NADB-funded Community Assistance Program (CAP)

### Technical Assistance and Training

- NADB technical assistance grants and training programs for project development and institutional strengthening of borrowers or potential borrowers

## Eligible Sectors

### Water, Wastewater & Storm Drainage

- Water supply, treatment and distribution
- Wastewater collection, treatment and reuse
- Water conservation
- Storm drainage

### Solid, Industrial & Hazardous Waste

- Sanitary landfills
- Collection & disposal equipment
- Dumpsite closure
- Recycling
- Site remediation
- Toxic waste disposal

### Air Quality

- Street paving and roadway improvements
- Ports of entry
- Public transportation
- Emissions reduction

### Clean/Renewable Energy

- Solar
- Wind
- Biofuels
- Methane capture
- Waste-to-energy
- Hydro
- Geothermal

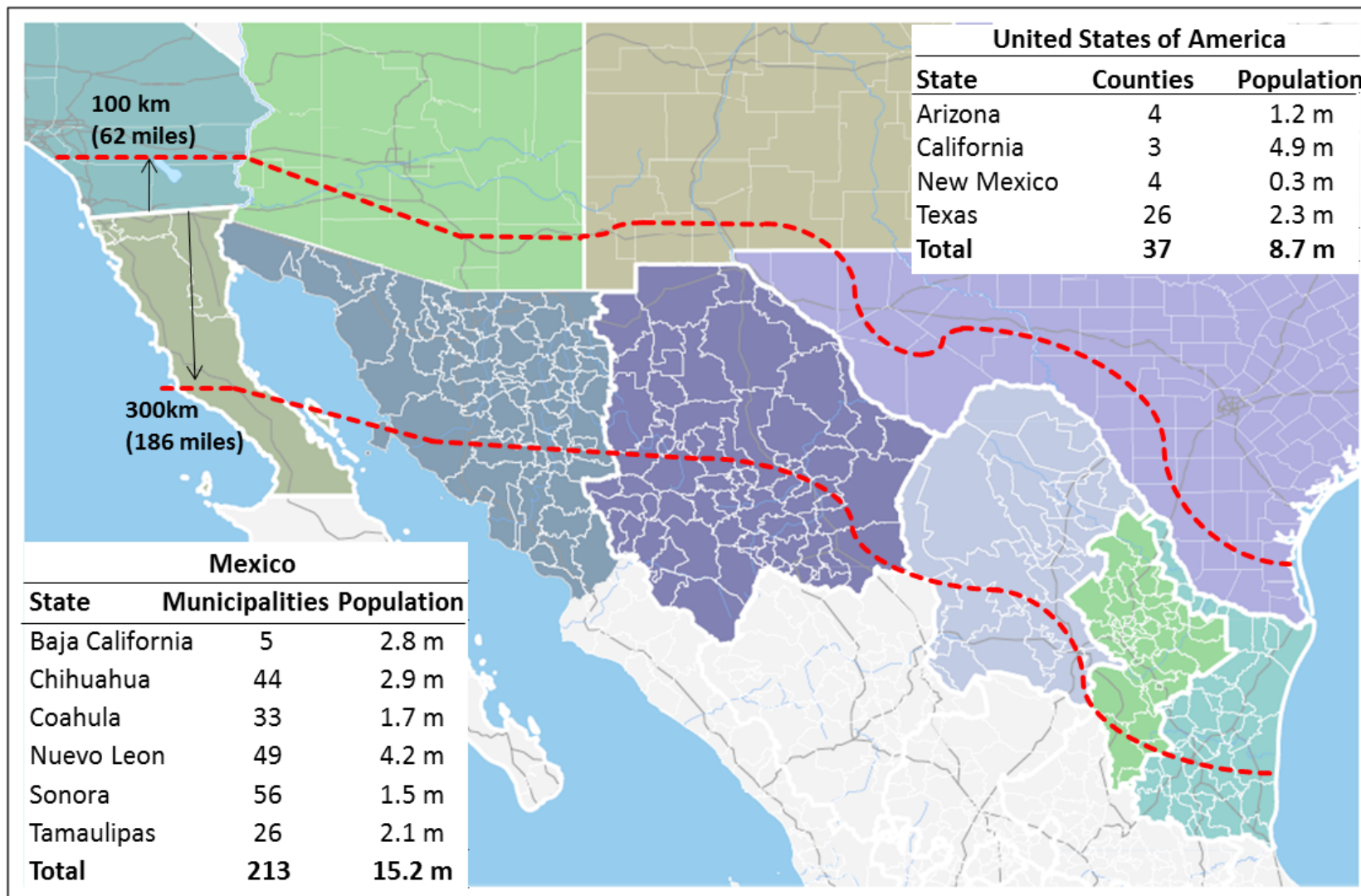
### Energy Efficiency

- Public lighting
- Building retrofits
- Equipment replacement
- Water utilities



# Financing Activity Overview

## NADB Jurisdiction



# Financing Activity Overview



## NADB Loan Process

1. Request for financing and certification
2. Review of project scope and cost
3. Financial/legal/technical environmental due diligence (borrower and/or guarantor)
4. Loan proposal
  - Revenue/source of payment analysis
  - Guaranty analysis
  - Credit risk analysis
  - Loan payment mechanism
  - Term sheet
5. Funding Committee and Board of Directors approval.
6. Loan closing (loan & guaranty document preparation & signing)
7. Implementation (disbursement of loan proceeds)