

# **Biomass Power in the United States The Workhorse of the Renewable Industry**

Environmental and Energy Studies Institute  
Congressional Briefing  
October 31, 2007



# Overview

1. Introduction
2. Biomass Power in the US—An Overview
3. Maine as a Case Study in Economic Benefits
4. The Tale of One Plant
5. Wrap-up

## Introduction

### Cleaves & Company Background

- Based in Portland, Maine
- Renewable energy developer/consultant
- Focus on biomass
- RECs, PTCs, other incentives

## Introduction, cont'd

### USA Biomass Power Producers Alliance

- 40 companies
- 80 plants
- 19 States
- [www.usabppa.com](http://www.usabppa.com)

## The National Biomass Industry at a Glimpse

- 1600 MW
- 19 States
- Top ten states: California (29), Maine (8), Michigan (7), Florida (5), Washington (3), Virginia (2), Vermont (2), New Hampshire (5), Oregon (6) Pennsylvania (3), N. Carolina (3)
- 40 plants remain idle

# Maine Biomass Industry

## ➤ **Independent Power Producers**

- Born in “PURPA Era”
- Most Now Merchant
- Important resource for health of forestry industry
- Backbone of forestry industry
- Significant Employer
- Supports pulp and paper– only significant manufacturing left in Maine

# Biomass in Maine

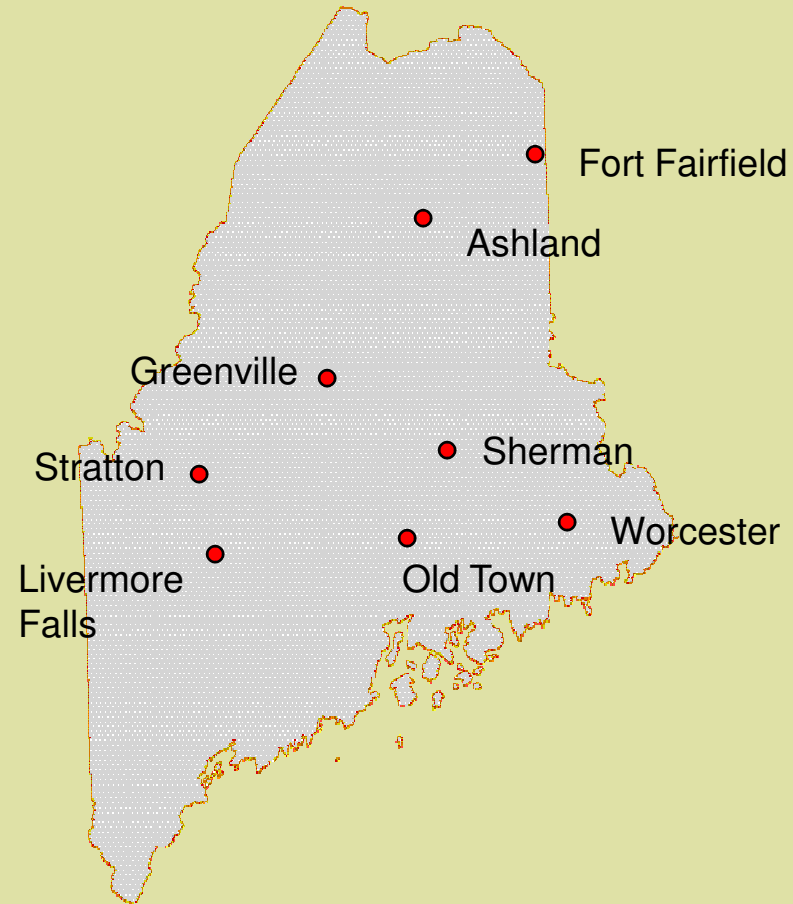
## Key Economic Statistics

- Forest industry is 4.1% of Maine GSP
- \$1 billion in goods and services annually
- 22% of all manufacturing jobs
- Biomass-to-energy is subset of forestry industry

## Maine Leads the Nation in Renewables

- Greater percentage of electricity from non-hydro than any other state
- Maine biomass generates 25% of Maine's electricity
- 3,000 jobs in wood harvesting, transport, construction, associated retail
- Example: Ft Fairfield (32MW): 140 jobs—  
38 direct/100 indirect, 30%  
of tax base, 10% of the job base in the region

# Locations of Biomass Facilities



## Worcester As a Case Study

- Located In Deblois, Maine: Pop. 51
- Income in region: Low to Moderate
- 60% farming or forestry
- County unemployment double state average
- Highest household poverty rate of any county (21%)
- Ranks as one of the highest poverty rates in Eastern US
- Jobs are seasonal, sporadic, low-wage, no benefits

# Worcester Energy, Deblois, Maine



## Worcester, cont'd

- Worcester Energy
- Built in mid-1980's as a peat-to-energy plant. Converted to wood in late 1980's
- 23MW Bubbling fluidized bed—low emissions.
- Closed in early 1990's due to market conditions.
- 140 employees out of work.
- Ripple effect on local economy.
- Significant loss of property taxes

## Worcester Cont'd

### Resurgence in 2004

- Combination of federal PTC, state REC market, stronger energy markets attracted investment and reopening
- CDBG Grant from Town, support from FAME and Eastern Maine Development
- Private Equity in Fall of 2005--\$25m invested to date

## Worcester, cont'd

- 40 direct employees—51% to LMI workers
- 105 indirect jobs
- Provides investment in open space
- Strengthens area forestry/enhances value of woodlands
- Stabilizes tax revenues of Deblois

## Critical Issues facing Biomass

- Provide tax credit parity with other technologies
- Repeal IRS “Netting Rule”
  - IRS Interim Guidance Notice 2006-88 (Sec. 3.03)
  - Intended to net station service
  - Instead, effect is to defeat new biomass and CHP by netting out on-site electrical load from open-loop’s generation to the grid
  - Except in unique circumstances, future of open-loop is co-location
  - Repeal is critical to future of CHP and Biomass

## Conclusion

For more information,  
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