



# **Benson Biomass Facility:**

## **Economic Impact Study**

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# Agenda

- Statutory Language and Appropriation
- What is Economic Impact Analysis?
- What Will the Benson Study Do?
- What Won't the Benson Study Do?

# Statutory Language

## ECONOMIC IMPACT STUDY OF BIOMASS FACILITY CLOSURE.

“The commissioner of employment and economic development shall conduct a study to examine the economic impact of the closure of a biomass facility located in the city of Benson that uses poultry litter to generate electricity. In conducting the study, the commissioner must analyze the impact of the closure of the biomass facility on employment and income in the local economy, including impacts on ancillary providers of goods and services to the biomass facility. The commissioner must report study findings to the legislature by **February 15, 2018.**”

# Appropriation

- \$150,000 appropriated by the 2017 Legislature from the Renewable Development Fund (RDF)
- DEED determined that study can be completed with existing staff and the support of a student worker
- Any unspent funds will be returned to the RDF

# Economic Impact Overview

- The so-called “ripple effect”
  - Direct Effect
    - The “pebble” that creates the “ripple”
    - The change that starts it all
    - Example: direct job loss at Benson biomass facility
  - Indirect Effect
    - Also called the supply chain effect
    - Determined by industries purchasing from each other
    - Example: loss of sales at supplier companies
  - Induced Effect
    - Also called the income effect
    - This is how the direct and indirect effects hit “main street”
    - Example: loss of sales at restaurants, movie theaters and retail

# The REMI Model

- Regional Economic Models, Inc. (REMI)
  - Model was developed at the University of Massachusetts at Amherst (company is located in Amherst, MA)
  - DEED has a two region model (7-county metro and Greater Minnesota)
  - Sophisticated model that combines four methods (input-output, econometric, computable general equilibrium, and new economic geography)
  - Provides wide range of input variables, including energy costs, investments, business and consumer expenditures, etc.
  - Provides numerous output options
  - Does dynamic, long run impacts

# More About The REMI Model

- REMI takes inputs like sales and creates estimates of jobs, investment and other variables that correspond to the direct impact
- Let's say every \$1 million in sales in an industry corresponds to 8 jobs, according to the model
- As a result, you wouldn't enter both sales and jobs as that would be double counting

# What Will the Benson Study Do?

- Take a macro perspective of the industries impacted by the facility closure (all impacts will be aggregated by industry)
- Result in a net impact, showing both the negative impacts of plant closure and the positive impacts of energy cost savings



# What Won't the Benson Study Do?

- Examine individual suppliers (impacts will be aggregated at the industry level)
- Determine the extent of any potential injury to individual suppliers

# Direct Impacts for Benson Study

- Loss of 45 jobs at Benson Biomass Facility
- Reallocate consumer energy cost savings into other consumer spending categories
- Business fuel cost savings
- \$20 million from RDF over four years to support economic development in Benson
- Opportunity cost of \$20 million from RDF
- Optional: new business project in Benson, if available

# Indirect Impacts for Benson Study

- Data exists on the amount the biomass facility purchases from suppliers, this data will be used to estimate the indirect impact
- Impacts will be aggregated by industry level
- Indirect impacts will include:
  - Loss of demand for fuel sources (wood and turkey litter)
  - Loss of demand for truckers
  - Loss of demand for other suppliers (depending on data availability)
- Suppliers are statewide, so impacts will be statewide

# Induced Impacts for Benson Study

- Induced impacts will be modeled in REMI
- The change in income resulting from the direct and indirect impacts results in changes in consumer expenditures

# Timeline

- Over the summer, we've gathered data and input from a number of suppliers, as well as Xcel Energy. This phase is close to wrapping up.
- Analysis and writing will take place fall 2017 to early winter 2018.
- Final report to Legislature due February 15, 2018.

# Thank You!

- Questions? Comments?

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