



Introduction

- Cargill provides food, agriculture, financial, and industrial products and services to the world
- Cargill's High River Plant is a beef facility that processes and employs approximately 4500 heads/day and 2000 people
- The facility is powered by nearly 50% renewable fuels





Frank Middleton



Frank Lake Partnership

- Located 6 kilometers outside of High River, AB
- Permanent water body to help improve wildlife habitat
- Cargill's partnership with Ducks
 Unlimited Canada presented an opportunity to implement control measures to ensure water levels are maintained





Frank Middleton

Fluidized Bed Boiler (FBB)

- Produces steam and electricity for the plant using waste fuel
- Approximately 65,000 lbs/hr of steam and 1.4 MW of electricity





7/18/2016 Frank Middleton

Fluidized Bed Boiler (FBB)

- Burns approximately 50 million pounds of SRM and 100 million pounds of manure per year
- Most energy independent meat plant in North America





Anaerobic Treatment Lagoons

- Two anaerobic treatment lagoons covered by a membrane
- Captures methane which goes through pipelines and treated in a separator
- Biogas then used in plant boiler room instead of fossil fuels
- Reduces GHG emissions





Global Environmental Improvements

- Energy Efficiency 5.1 %
- Greenhouse Gas Intensity 7.1 %
- Fresh Water Efficiency 6.6 %
- Renewable Energy 14 %
- Approximately 75,000 tons of landfill waste reduction per year (High River)
- More than 1 million metric tons of carbon emissions avoided per year
- Increase in waterfowl habitat & biodiversity through discharge water into Frank Lake (High River)



Examples of Cargill's Global Efforts

- Funded a biogas plant on Jeju Island in Korea
- Installed solar panels in Cargill's feed mix plant in Amman and Managua meat processing facility in Nicaragua
- Three Cargill salt facilities in USA are replacing coal boilers with highefficiency natural gas boilers





