

# West Liberty Foods, LLC

## COMPANY BACKGROUND



West Liberty Foods, LLC is a food manufacturing company based out of West Liberty, IA. They have plants located in Iowa and Utah and employ more than 2,000 people. The plants are located in West Liberty, IA, Mt. Pleasant IA, and Tremonton, UT. Their products include cooked turkey, meatballs, chicken and several other products.

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## PROJECT BACKGROUND

West Liberty Foods plant located in West Liberty, IA uses a large amount of vegetable oil every year. This oil is mainly used to fry meats. This process generates a large amount of waste oil. This year West Liberty Foods wanted to focus on ways to utilize this waste oil by either producing biodiesel or by simply recycling the oil.

## INCENTIVES TO CHANGE

West Liberty Foods has had a strong environmental record in the past and would like to continue this by having a consistent waste disposal method for the waste oil. With the help of this project, West Liberty Foods can use the waste oil to produce biodiesel and use it in their current trucking fleet. Once this plan is implemented in West Liberty, IA, it can be easily implemented in their other plants located in Mt. Pleasant, Iowa and Tremonton, Utah.

## RESULTS

**Biodiesel Project:** Biodiesel can be produced from the waste oil generated at West Liberty Foods. This will require the installation of equipment and a separate facility located on site. The biodiesel produced from the oil can be used in the company's trucking fleet, which will reduce transportation costs considerably. By using biodiesel, West Liberty Foods will not only reduce transportation costs but also reduce emissions such as SOx, PM, HC, CO, SO2 and CO2.

**Re-using Oil Project:** Re-using the cooking oil was determined to be a cost effective method to reduce waste generation. West Liberty Foods can recycle the waste oil through separation and filtration and reuse it in their production process. The equipment involved can be installed on the current site.

**Digester Project:** West Liberty Foods generates 4,000 tons of solid waste every month. This waste can be utilized to produce energy by processing it through a digester. Currently this waste is sent off site for disposal.



## AIR POLLUTANTS DIVERTED IN TONS

Total for all sectors	
SO2	0.87
CO	9.00
NOx	2.10
VOC	1.99
PM	0.86

## GREEN HOUSE GASES DIVERTED IN TONS (CO2 Equivalent)

Total for all sectors	
CO2	493.68
CH4	44.89
N2O	629.20
CFC	4.09

PROJECT	ANNUAL COST SAVINGS	ENVIRONMENTAL RESULTS	STATUS
BIODIESEL	\$103,000	300,000 GALLONS OF OIL	OPTIONAL
RE-USING OIL	\$170,000	300,000 GALLONS OF OIL	IMPLEMENTING
BOILER CHANGE	\$(-50000)	300,000 GALLONS OF OIL	NOT COST EFFECTIVE
DIGESTER PROJECT	\$500,000	1,000,000 POUNDS	FURTHER RESEARCH NEEDED