

August 1, 2018
[Sent Via Email]

Karlene Fine
North Dakota Industrial Commission

RE: Andeavor - Renewable Energy Contract

Dear Ms. Fine,

In conjunction with Contract No. R-033-042, section 2b (Annual Report), Andeavor kindly submits the following information in compliance with Section 5.11 of the North Dakota Industrial Commission – Renewable Energy Development Program Policies.

Summary of Project

This project will provide the capability to co-process up to 5% of soybean oil, (16,800 gallons/day), with conventional crude diesel feedstock in the Andeavor Dickinson Refinery's existing Diesel Hydrotreater Unit.

The Project scope includes:

- Modification of an existing 1.26-million-gallon storage tank for storing soybean oil feed – this includes, tank internal cleaning, installing nitrogen blanketing to prevent soybean oil oxidation and installation of emergency pressure/vacuum relief.
- Modification of an existing crude oil truck unloading station for soybean oil service – this includes piping modifications and the electrical heat tracing and insulation of pipe and equipment.
- Installation of 1,100 feet of new 4" pipe, electrically heat traced and insulated, to route the soybean oil from the truck unloading station to the storage tank. And electrically heat trace and insulate 1,240 feet of existing 4" pipe to enable transfer of the soybean oil from tankage to the Diesel Hydrotreater Unit.
- Installation of a new control valve station and flow meter for soybean oil feed control to the existing Diesel Hydrotreater Unit
- Replacement of the reaction catalysts in the existing Diesel Hydrotreater Unit Reactors.

Summary of Work Completed To-Date

All work has been completed. The EPA approved Andeavor's Renewable Diesel co-processing registration protocol and we began receiving soybean oil in late May 2018. We commenced co-processing operations on June 12, 2018.

Project Costs (as of June 30, 2018)

Amount	Category
\$ 2,432,390	Pipe, Valves & Fittings
804,946	Engineering Costs
503,011	Major Equipment
365,475	Professional Services
43,394	Other Materials
\$ 4,149,216	Total Project Cost