

AK Steel Energy Efficiency Rider Exemption

PUCO Docket # 14-0146

Savings Report: 2015 Annual Report

Committed Project Overview: AK Steel agrees to commit the energy savings generated from the Waste Energy Recovery Pressure Reducing Valve (PRV) Turbine located and operating at the Middletown Works Facility. The project will deliver 9,435,500 kWh of energy savings per year, qualifying AK Steel for nearly 9 months of exemption from the Duke Energy Corporation energy efficiency recovery rider. This report is for the first 5 months of operation and the results achieved so far. The project will continue to run and “earn” rider exemption through June of 2016.

Project Timeline/Rider Exemption Timeline: The PRV Turbine was put in place in July of 2014. AK Steel has submitted kWh generation data every month since installation. AK Steel asks that it be retroactively exempt from the energy efficiency recovery rider.

Rider Exemption Calculations:

kWh Savings from July 2014 to December 2015 = 4,003,658 kWh

Monthly PRV Turbine production is shown in the graph below.

The average annual total electricity consumption for AK Steel Middletown Works over the past three years is 1,310,095.9 MWh. (2013-2011)

Total Usage for 2011 was 1,302,509 MWH

Total Usage for 2012 was 1,315,525 MWH

Total Usage for 2013 was 1,321,254 MWH

Since 1% annual reduction is required to offset the rider for the year 2015, the annual rider reduction requirement is: $0.01 \times 1,310,096 \text{ MWh} = 13,100,960 \text{ kWh}$.

This project has offset $4,003,658 \text{ kWh} / 13,100,960 \text{ kWh} = 30.6\%$ of the annual rider requirement

$365 \text{ days per year} \times 30.6\% = 111.7 \text{ days of rider exemption} = 3.7 \text{ months “earned”}$ through its 5 months of run time in 2015. Unit will continue to run and deliver rider exemption in 2016.

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Summary: Annual Report Annual production summary of WER PRV Turbine Project.
electronically filed by Mr. Lucas M Dixon on behalf of Dixon , Lucas M Mr. and Plug Smart
and The AK Steel Corporation