

### **City of Nampa – Valley Regional Transit Biogas study**

The purpose of this study is to analyze the natural gas usage of Valley Regional Transit's city busses in comparison to the biogas which the city of Nampa could provide for their vehicles at a wholesale rate.

As of 2024, the total volume of natural gas used by VRT was 103,892 gasoline gallons equivalent (GGE). One gasoline gallon equivalent is equal to roughly 123.57 cubic feet of biogas. In terms of cubic feet, Valley Regional Transit's 2024 yearly consumption would be equal to 12,837,935 cubic feet of gas.

Currently, the retail rate for natural gas in Idaho is roughly \$14.82 per 1000 cubic feet on average from Intermountain Gas Company. According to a Technical Memorandum prepared by Brown and Caldwell in an ROI study from 2021, City of Nampa has capability to sell its biogas at a rate of \$13.06 per 1,000 cubic feet. This same memorandum estimates a production rate of approximately 171,000 cubic feet of raw biogas per day. Alternatively, selling at the same rate as Intermountain Gas -\$1 to account for production costs, this would equal \$13.82 per 1000 cubic feet.

Per year, this has the potential to result in a profit of \$167,663 from Valley Regional Transit. With the alternative pricing of \$13.82 per 1,000 cubic feet, this could result in a profit of \$177,420 per year.

This leaves a remainder of approximately 49,577,065 cubic feet of raw biogas for the City of Nampa to profit off. As discussed in another technical memorandum, one alternative for this remaining gas is to convert the biogas into renewable natural gas quality and then inject it into a natural gas pipeline. The city would be able to profit off of selling both the Renewable Identification Numbers as well as the Renewable natural gas.

Natural gas is currently priced at a rate of \$0.20 per therm. One therm is equal to roughly 100 cubic feet of gas. This means that the city would have roughly 495,771 therms of RNG to inject per year into the pipeline. At a rate of \$0.20, this equals about \$99,150 of profit off the natural gas alone. It is worth note that in the memorandum, they state that the profit off selling the Renewable Identification Numbers (RINs) is a far larger percentage gain for the City of Nampa than the RNG alone.

The estimated RIN value per 1,000 cubic feet of gas is \$11.92, meaning Nampa would make approximately \$590,960 in yearly profit off of the RIN value alongside the RNG value of 49,577,065 cubic feet of gas.