

## Renewable Natural Gas Adoption Roundtable Discussion Summary

The Dallas-Fort Worth Clean Cities Coalition (DFWCC) hosted the Renewable Natural Gas Adoption Roundtable meeting, on Tuesday, February 4, 2025. This meeting provided insight into the advantages and disadvantages of adopting Renewable Natural Gas (RNG) from three fleets currently using RNG: Atmos Energy, Dallas Area Rapid Transit (DART), and Dallas-Fort Worth International Airport (DFWIA). The goal of the webinar was to encourage more fleets to consider adopting RNG. After a short presentation, there was time for question and answers between attendees and Atmos Energy, DART, and DFWIA. A summary of this discussion is below; please note the questions and answers have been edited for clarity. For more information on DFWCC go to [www.dfwcleancities.org](http://www.dfwcleancities.org).

### Panel Overview

#### **Atmos Energy**

Atmos Energy purchases RNG for use in medium- and light-duty vehicles. Atmos Energy stated RNG is a reliable fuel for their vehicles that is cheaper than gasoline. Atmos Energy's RNG is unbundled (i.e. they do not specify the source of their RNG) but they typically have a 90% reduction of carbon dioxide equivalent (CO<sub>2</sub>e). Atmos Energy has had no issues specific to using RNG, but they did have some issues with their Compressed Natural Gas (CNG) stations when they were initially built.

#### **DART**

DART's primary source of RNG is landfill gas, which is procured through a competitive bidding process. The adoption of RNG supports DART's mandate to reduce harmful emissions and contributes to environmental sustainability. The cost of RNG is similar to CNG, and the RNG is delivered through the existing CNG gas pipeline infrastructure. As a result, the use of RNG is "transparent" to operators, with no discernible difference between RNG and CNG.

#### **DFWIA**

DFWIA adopted RNG to reduce carbon footprint. DFWIA's RNG is sourced from landfill biogas and DFWIA's average price of RNG is \$0.29/DGE less than CNG.

### Summary of Open Discussion

#### **1) Is there any difference in using RNG for facilities instead of vehicles?**

Atmos Energy– Atmos Energy uses Renewable Natural Gas (RNG) in a facility but does not claim Renewable Identification Number (RIN) credits. Atmos does not purchase RINs because the credits go through their customers. Their focus on RNG is driven by reliability and environmental concerns,



rather than meeting compliance with the Renewable Fuel Standard (RFS) program. However, when RNG is used in a facility, there is no difference than when CNG is used.

DART – DART uses RNG in facilities and vehicles. However, DART only claims RIN credits for vehicles not facilities.

DFWIA – DFWIA is not using RNG at facilities because RIN credits can only be claimed when RNG is used in a vehicle. RNG costs DFWIA more than CNG, so it is not cost prohibitive for DFWIA to purchase RNG for use in facilities.

**2) If you are using RNG in a facility, how is that affecting warranties on the HVAC equipment/system?**

Atmos Energy – Atmos Energy is not aware of any impacts of using RNG on HVAC warranties.

DART – DART is not aware of any warranty issues. RNG performs reliably without causing maintenance issues in DART's facilities or vehicle operations.

DFWIA – DFWIA is not using RNG in their facilities, but DFWIA expects using RNG would not affect warranties. RNG fuel producers must meet certain fuel standards. Because of these fuel standards, when RNG is added to the pipeline it is identical to CNG.

**3) Do you outsource vehicle maintenance and repair? Have you seen any difference in availability of mechanics or other differences in maintenance from using CNG instead of diesel?**

Atmos Energy – Atmos Energy outsources all vehicle maintenance but has their own CNG/RNG refueling station for reliability.

DART – DART has a robust training program for servicing CNG vehicles and recommends fleet's perform services in-house as well. In general, when a mechanic has prior knowledge of diesel, they can learn CNG/RNG systems as there are very few differences. Outsourcing maintenance is typically more expensive, as only the original equipment manufacturers are able to work on the CNG/RNG vehicles.

DFWIA – DFWIA has two separate contacts for maintenance. Light-duty CNG vehicle maintenance is done on-site, while heavy-duty CNG vehicle maintenance is outsourced. DFWIA's facilities are equipped with ventilation to accommodate CNG maintenance. DFWIA has noticed challenges in retaining CNG mechanics and obtaining replacement parts for CNG vehicles.

**4) DART has several different models for CNG/RNG buses, have there been any significant differences in models?**

DART – The major difference between the Cummins L9N and the Cummins ISL-G engines are the coolers and cylinder. The L9N engine is more efficient and produces almost zero emissions. Currently, Cummins is the only engine manufacturer making CNG engines for urban transit buses. DART has concerns about the next phase of CNG engines, as they may not work with transit buses. However, this is not expected to be a problem for many years based on DART's fleet turnover schedule.

**5) Is anyone operating the Cummins X15 CNG engine? If so, what has been your experience so far?**

No panelist is currently operating the Cummins X15 engine. However, an attendee has heard the main issues with Cummins X15 engines can occur when they are not consistently maintained/tune



ups are skipped. In general, Cummins X15 CNG engines don't seem to have as long of a life expectancy as diesel, but the Cummins heavy-duty CNG engines are considered to be one of the best CNG engine available.

**6) Has Atmos Energy had any unique experience with maintaining or operating CNG light-duty vehicles?**

Atmos Energy – No maintenance issues on the light- or medium-duty vehicles. Atmos Energy did install their own fueling stations to avoid relying on others during weather events. Atmos Energy has had challenges with their infrastructure's card reader and managing multiple fuel tracking systems.

**7) Are there cost savings going from CNG to RNG? Additionally, are there cost per mile estimates for using CNG/RNG vehicles?**

Atmos Energy – Atmos pays for CNG/RNG through a third party and typically pays \$1/gasoline gallon equivalent (GGE). This is less than they would pay for gasoline.

DART – The cost savings are difficult to measure. 85% of the RNG DART purchases is at a set price, and the remaining 15% of the RNG is market value, which can vary significantly. DART expects to spend around \$12 million on CNG and RNG this year to fuel DART's 561 CNG/RNG buses and expects to receive approximately \$1 million in RIN credits.

DFWIA – In 2017, the cost savings were roughly \$0.30 per diesel gallon equivalent (DGE). However, a portion of the fuel cost DFWIA pays covers the operations and maintenance of the CNG/RNG refueling station DFWIA uses. Last year, DFWIA spent approximately \$2.5 million for CNG and RNG and received approximately \$500,000 in RIN revenue.

**8) Do you know if the percentage of RNG in the blend affects the RINs? Or is it based on per gallon?**

DFWIA – RIN credits are based on different types of biofuels and the amount depends on the feedstock/source used to make the RNG. The source/feedstock is determined on the producer side, so the user has little control over this unless it is negotiated as part of their contract.

**9) Lessons learned/best practices/advice?**

Atmos Energy – Encourages others to explore RNG and is a strong proponent of RNG's use in their fleet. Atmos Energy can help connect buyers and producers of RNG.

DART – Strongly encourages the use of RNG for its environmental benefits and transparency. DART would like to detail the specific blend and source of DART's RNG in future DART contracts.

DFWIA – Has benefited from RNG by lowering carbon emissions and reducing costs. RNG has a positive impact on waste reduction and emissions in North Texas.

**10) How do I purchase RNG?**

Atmos Energy – Atmos Energy has a marketing team who works with facilities to connect potential RNG producers with customers.

DART – Recommends starting out by writing a scope of work.



DFWIA – For any fuel procurement, DFWIA works closely with their in-house purchasing. They also look at other airports or municipalities that have also recently put out a solicitation for ideas on how to procure RNG.



Source: North Central Texas Council of Governments