



City of Phoenix

Mission Statement

To improve the quality of life in Phoenix through efficient delivery of outstanding public services.

Project Team

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Project Number

1240041

This report can be made available in alternate format upon request.

**Water Services Department
Ninety-First Avenue Renewable Biogas, LLC**

October 17, 2024

Report Highlights

Loan Payments

The City received the proper interest and principal payments as required by the loan agreement.

Quarterly Payments

The three main components of the quarterly payments calculation for 2023 were properly calculated and received.

***City Auditor Department
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Executive Summary

Purpose

Our purpose was to determine if interest and principal owed to the City from the agreement with Ninety-First Avenue Renewable Biogas, LLC was paid in accordance with contract terms. We also verified that the quarterly payments for 2023 were accurately calculated and received by the Water Services Department (WSD) in compliance with contract terms.

Background

In 2016, the City Manager authorized an agreement with Ninety-First Avenue Renewable Biogas, LLC (Developer), to provide secured financing for constructing a digester gas (biogas) treatment facility at the Ninety-First Avenue Wastewater Treatment Plant. The facility treats the waste biogas and produces a renewable methane gas product of sufficient quality that it can be resold on the open market. The estimated cost of construction was \$25M, to be repaid over 10 years at 4.5% interest, resulting in \$6.5M in interest revenue over the life of the agreement to the Water fund.

The loan was paid back in its entirety in 2023 a few years early. The repayment of the loan was facilitated through the Finance Department (Finance).

In addition to the financing loan agreement, WSD, on behalf of the Sub-Regional Operating Group (SROG), entered into Agreement #143094 with Ninety-First Avenue Renewable Biogas, LLC (Developer) to construct and operate the facility. The agreement contains provisions to:

- Account for and quantify the quantity and quality of biogas delivered to the Biogas Developer.
- Calculate the quarterly payment from the Biogas Developer to SROG.

Wilson Engineers (Wilson) has been retained by SROG to provide support services associated with implementing this agreement. Two specific tasks for Wilson include:

- Monitoring the quantity of biogas produced and delivered to the Biogas Developer.
- Reviewing and verifying the biogas payment from the Biogas Developer to the City.

Ameresco operates and maintains the Biogas Facility on behalf of the Developer. The Developer leases the land from the City to operate the facility. The Developer pays WSD quarterly for a portion of the retrieved biogas that they capture. For 2023, quarterly payments totaled \$534,426. This amount was revised to \$527,935 after an error was found in the calculations by Wilson.

The agreement also provides an annual bonus revenue payment for the biogas that is sold at market. For 2023, the annual bonus revenue payment was \$2,023,935. We did not review the annual bonus revenue payment in this audit.

Results in Brief

The City received the proper interest and principal payments as required by the loan agreement.

Finance developed an amortization schedule for the loan. The Developer made six loan draws. Initially, the Developer paid interest-only payments until the facility was operational. When the facility became operational in April 2019, they began making interest and principal payments. The Developer also began making additional principal payments to pay off the loan.

We reviewed the loan documentation and agreed the loan draws to Finance's amortization schedule. In addition, we agreed the interest, principal, and additional payments in SAP to the amortization schedule. No exceptions were noted. The Developer paid off the loan in March 2023.

There are many components that comprise the quarterly payment calculation. The three main components of the quarterly payments calculation for 2023 were properly calculated and received.

We reviewed the four quarterly statements for 2023. We tied "Biogas Tendered", "Biogas Tendered - count to Quarterly Delivery Target (QDT)," and "Biogas Delivered" from the quarterly spreadsheets to Biogas facility system reports. No exceptions were noted during this testing. In addition, we tied the payments from the quarterly statements received from the Developer to SAP. The four quarterly payments were properly received in SAP.

1 – Loan Agreement - Payments

Background

In 2016, the City Manager authorized an agreement with Ninety-First Avenue Renewable Biogas, LLC, (Developer) to provide secured financing for constructing a digester gas (biogas) treatment facility at the Ninety-First Avenue Wastewater Treatment Plant. The facility treats the waste biogas and produces a renewable methane gas product of sufficient quality that it can be resold on the open market. The estimated cost of construction was \$24,823,357, to be repaid over 10 years at 4.5% interest once the project was operational. The repayment of the loan was facilitated through Finance.

We traced the amounts from the loan draw documentation to SAP to ensure the amounts matched. We also agreed Finance's amortization schedule of interest and principal payments to SAP to ensure the amounts matched.

Results

Loan draw documentation matched SAP and Finance's amortization schedule.

Finance developed an amortization schedule for the loan. The Developer made a total of six loan draws. Initially, the Developer paid interest-only payments. When the facility became operational in April 2019, they began making interest and principal payments (according to contract requirements). The Developer also began making additional principal payments to pay off the loan. We reviewed the loan documentation and agreed the loan draw amounts to Finance's amortization schedule.

Interest and principal payment documentation matched SAP and Finance's amortization schedule.

We agreed the interest, principal, and additional payments in SAP to the amortization schedule. No exceptions were noted. The Developer paid off the loan early in March 2023.

Recommendations

None

2 – Operating Agreement – Quarterly Payments and Calibration Reports

Background

WSD, on behalf of the Sub Regional Operating Group (SROG), entered into Agreement #143094 with Ninety-First Avenue Renewable Biogas, LLC (Developer) to construct and operate the facility. The agreement contains provisions to:

- Account for and quantify the quantity and quality of biogas delivered to the Biogas Developer.
- Calculate the quarterly payment from the Biogas Developer to the City. The City distributes to other SROG cities as appropriate.

Wilson Engineers (Wilson) has been retained by SROG to provide support services associated with implementing this agreement. Two specific tasks for Wilson include:

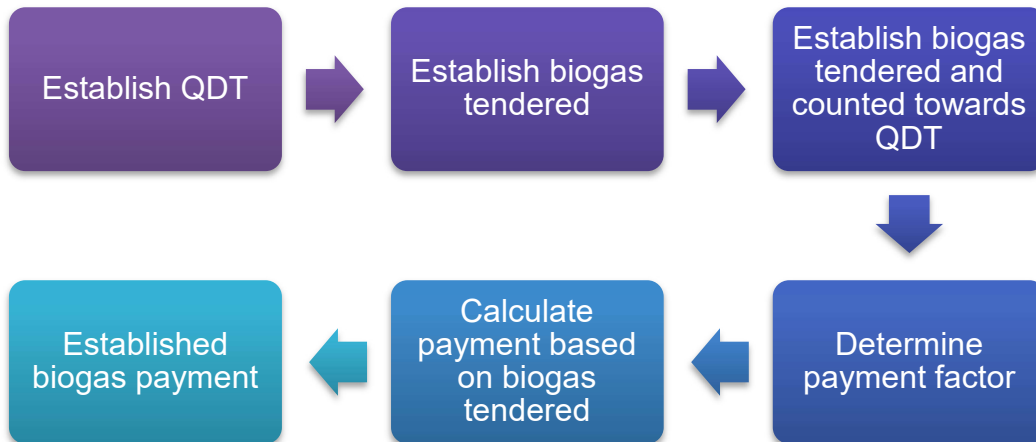
- Monitoring the quantity of biogas produced and delivered to the Biogas Developer.
- Reviewing and verifying the biogas payment from the Biogas Developer to the City.

The process for the quarterly payments is as follows:

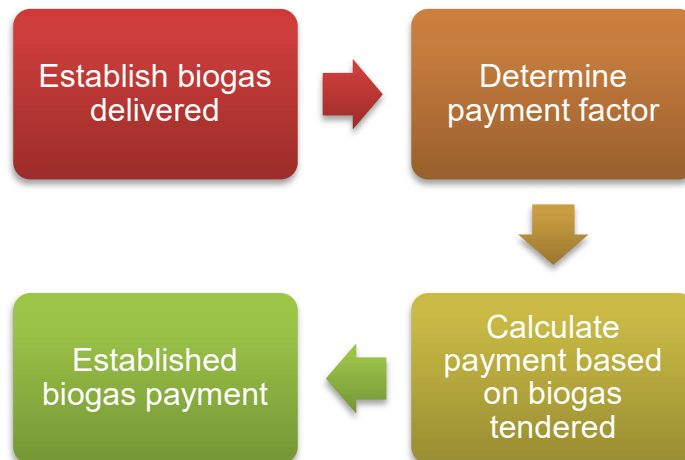
- The Developer prepares the quarterly calculation spreadsheet.
- The Developer sends the spreadsheet to Wilson Engineers.
- Wilson reviews for accuracy and provides any potential comments.
- The Developer updates the spreadsheet if needed.
- The Developer sends the quarterly spreadsheet to Finance – Financial Accounting and Reporting (FAR) Division.
- Wilson sends the backup spreadsheet to WSD staff for backup documentation.
- Checks are sent to the Finance Lock Box.
- FAR generates the sales order for the invoice and ensures the payment is applied. FAR does not have a role in verifying the calculations.

Based on contract requirements, the quarterly payment is calculated on three main components: “Biogas Tendered”, “Biogas Tendered - count toward Quarterly Delivery Target (QDT),” and “Biogas Delivered.” The payment amount is calculated using two different methods. One is based on biogas delivered from the 91st Ave Wastewater Treatment Plant to the Biogas Facility (biogas tendered.) The other is the biogas that is accepted and processed at the Biogas facility (biogas delivered.) The higher of the two calculations is used for the quarterly payment to the City. The process of the calculation is as follows:

Biogas Tendered Calculation Process



Biogas Delivered Calculation Process



Results

The three components that comprise the calculation of the quarterly payments agreed to supporting documentation for 2023 payments.

We reviewed the four quarterly statements for 2023. We tied "Biogas Tendered", "Biogas Tendered - count toward QDT," and "Biogas Delivered" from the quarterly spreadsheets to Biogas facility system reports. These values were in Million British

Thermal Units (MMBtu) which is a measurement of the thermal energy. This is a standard measurement that is used in different industries, such as oil, gas, power, and steam generation. In this case, MMBtu is a measurement of biogas. No exceptions were noted during this testing.

Payments from the quarterly statements agreed to SAP payments received.

We reviewed the quarterly statements for 2023. We tied the payments from the quarterly statements received from the Developer to SAP. The four quarterly payments were properly received in SAP. We also ensured that the higher amount between the biogas tendered and biogas delivered was properly used.

2023 Quarterly Payments

Quarter	Payment to WSD	Revised Payment
1	\$150,680	n/a
2	\$137,646	n/a
3	\$133,736	\$133,108
4	\$112,364	\$106,501
Total	\$534,426	\$527,935

Two of the quarterly payments were appropriately revised.

We noted that Q3 and Q4 spreadsheets were appropriately revised as the control process identified and corrected issues. Per WSD, Wilson noted an issue in their post-payment review done at the end of 2023. The issue was related to the formulas for the flare calculations that affected these two quarters and resulted in a \$6,491 overpayment. Wilson communicated this issue to the Developer, and they revised the spreadsheets. A reconciliation of payments in the first quarter of 2024 corrected the overpayment.

Because of the revised Q3 and Q4 statements, we noted that the draft SROG report did not reflect the updated quarterly payments.

WSD staff explained that the 2023 SROG report had not been finalized, as they were waiting for this audit to be completed and to determine if any issues needed to be addressed. As previously mentioned, we noted that Q3 and Q4 spreadsheets had been revised which resulted in different quarterly payments. The draft SROG report did not match the revised quarter three and quarter four numbers. We notified WSD staff

regarding this issue and they worked with Wilson to update the draft SROG report to reflect the correct quarterly numbers.

Calibration reports showed that the flow meters were properly calibrated by a third-party within 12 months.

The Biogas Facility has three flow meters. A flow meter reads the amount of gas produced which is used in the calculation of the quarterly payments. Biogas facility reports are used in the quarterly payment calculation process. As noted above, we tied components of the Biogas Facility reports to the quarterly calculation spreadsheets.

We requested the third-party calibration reports for the three flow meters for 2022 and 2023. According to contract requirements, they were to be calibrated every twelve months. We noted the three flow meters were calibrated within twelve months according to the contract requirements.

Recommendations

None

Scope, Methods, and Standards

Scope

We reviewed principal and interest payments owed to the City from the agreement with Ninety-First Avenue Renewable Biogas, LLC. We also reviewed Operating Agreement #143094 for the quarterly payments for calendar year 2023.

The internal control components and underlying principles that are significant to the audit objectives are:

- Monitoring Activities
 - Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.

Methods

We used the following methods to complete this audit:

- Discussed loan agreement and payoff with Finance staff.
- Agreed loan payments to amortization schedule.
- Discussed quarterly payment process with Finance and WSD staff.
- Discussed quarterly payment calculation process with Wilson Engineers.
- Agreed quarterly calculations to supporting documentation.

Unless otherwise stated in the report, all sampling in this audit was conducted using a judgmental methodology to maximize efficiency based on auditor knowledge of the population being tested. As such, sample results cannot be extrapolated to the entire population and are limited to a discussion of only those items reviewed.

Data Reliability

The reliability of SAP report FBL5N was previously determined through an independent audit review. We reviewed third-party calibration reports of the Biogas Facility flow meters to rely on their data. The Biogas Facility reports are used in the quarterly calculation process. We tied components of the Biogas Facility reports to the quarterly calculation spreadsheets.

Standards

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence

obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Any deficiencies in internal controls deemed to be insignificant to the audit objectives but that warranted the attention of those charged with governance were delivered in a separate memo. We are independent per the generally accepted government auditing requirements for internal auditors.