THE CITY OF PLEASANTON

CITY COUNCIL AGENDA REPORT

August 15, 2023
City Manager

TITLE: APPROVE THE RENEWABLE NATURAL GAS PROGRAM MEMBER AGREEMENT BY AND BETWEEN ABAG POWER AND THE CITY OF PLEASANTON TO PROCURE SB 1383 COMPLIANT NATURAL GAS NOT TO EXCEED $233,780 OVER A THIRTY-FOUR MONTH TERM

SUMMARY

The City is a member agency of ABAG POWER, an organization that administers a natural gas program that serves cities, counties, and special districts. ABAG POWER aggregates the natural gas needs of members and conducts bulk purchases, arranges distribution, and oversees delivery to provide price stability and cost savings to public agencies who voluntarily join the program.

ABAG POWER recently established a renewable natural gas (RNG) program to procure biomethane renewable natural gas to assist its members in complying with Senate Bill (SB) 1383 requirements. The City has worked with ABAG POWER to draft an agreement to provide for SB 1383 compliant RNG procurement over a thirty-four-month term at a cost not to exceed $233,780 (Attachment 1). The agreement provides that ABAG POWER will procure the SB 1383 compliant natural gas on behalf of the City, manage the direct contract with supplier, and collect and share with the City the required record keeping documents under the SB 1383 regulations. This agreement is part of the City's overall SB 1383 compliance strategy, which also includes the procurement of compost, both locally and by contract through a direct service provider.

RECOMMENDATION

Approve the Renewable Natural Gas Program Member Agreement by and between ABAG POWER and the City of Pleasanton to procure SB 1383 compliant natural gas not to exceed $233,780 over a thirty-four-month term.

FINANCIAL STATEMENT

The procurement of SB 1383 compliant RNG is budgeted in various department accounts in the FY 2023/24-FY 2024/25 budget in the amount of $105,840 in each fiscal year.

Additional costs outlined in the agreement are an annual service fee of $1,500 to compensate ABAG POWER staff for the time to manage the contract and provide the recordkeeping required by SB 1383 for a total of $4,500 for the term of the agreement.

ABAG POWER also requires a refundable deposit for Working Capital equal to two months of RNG payments in the amount of $17,600. These costs are directly related to the SB 1383 procurement requirements and will be paid using the PGS special revenue reserve Fund 171. The refundable Working Capital deposit will be returned to Fund 171 when remitted back to the City.

Expenditure	Cost	Reference to Agreement
SB 1383 compliant renewable natural gas	$ 211,680	Exhibit C
Service Fee	$ 4,500	Exhibit B
Refundable deposit for Working Capital	$ 17,600	Exhibit C
Total Contract Amount	**$ 233,780**	

BACKGROUND

In September 2016, Governor Brown signed into law SB 1383 (Lara, Chapter 395, Statutes of 2016), establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants (SLCP) in various sectors of California's economy. The law codifies the California Air Resources Board's Short-Lived Climate Pollutant Reduction Strategy, established pursuant to SB 605 (Lara, Chapter 523, Statutes of 2014), to achieve reductions in the statewide emissions of short-lived climate pollutants. These actions seek to address the many impacts of climate change on human health and on the environment. Methane emissions resulting from the decomposition of organic waste in landfills are a significant source of greenhouse gas (GHG) emissions contributing to global climate change. Additionally, organic materials including waste that can be readily prevented, recycled, or composted account for a significant portion of California's overall waste stream. All SB 1383 regulations went into effect January 1, 2022.

Under SB 1383, the City is required to procure certain levels of compost, RNG used for transportation fuels, electricity, heating applications, or pipeline injection, or electricity from biomass conversion produced from organic waste. The City's procurement target is established by State regulation, according to population. In 2023, ABAG POWER established an RNG aggregation program to assist members in meeting jurisdictional procurement targets created by SB 1383. Under the program, ABAG POWER conducts pooled purchasing of RNG (i.e., biomethane) and related fuels to achieve reductions in GHG emissions, address the recycling of organic waste, and assist participants with the promotion and use of low carbon fuels. At the request of its member agencies, ABAG POWER issued a Request for Offers (RFO) seeking supplies of SB 1383 compliant biomethane RNG. ABAG POWER has identified a supplier and has negotiated terms on behalf of interested agencies to procure RNG.

DISCUSSION

The State issued to the City a procurement target of 6,357 tons per year of recovered organic waste products. The City will meet approximately 30 percent of its SB 1383 procurement target with the purchase of RNG through this agreement with ABAG

POWER. As noted, the balance of the City's procurement requirement will be met through other contracts, primarily through the procurement of compost.

The agreement between ABAG POWER and the City provides that ABAG POWER will procure the SB 1383-compliant RNG on behalf of the City, manage the direct contract with supplier, and collect and share with the City the required record keeping documents under the SB 1383 regulations. The agreement term is thirty-four months, and the cost is not to exceed $233,780.

Further analysis of the City's consideration of procurement of SB 1383 compliant RNG was conducted by Rincon Consultants, Inc. An analysis of natural gas replacement with the purchase of RNG was completed (Attachment 2) and concluded that the replacement of fossil fuel natural gas with RNG has GHG reduction benefits. The analysis looked at various percentage levels at which the City could reduce natural gas and replace with RNG. Based on available funding, City staff selected to replace approximately 25 percent of the current ABAG POWER natural gas portfolio with RNG avoiding a total of approximately 161.42 metric tons (MT) of CO_2 emissions annually.

Additionally, Rincon Consultants, Inc. conducted a cost-benefit analysis of replacing natural gas with RNG based on the cost of procurement of the product and the social cost of carbon. The social cost of carbon is defined as the monetary value of net harm or economic damages to society from emitting a metric ton of the GHG to the atmosphere each year. The Rincon analysis concluded that replacing natural gas with RNG creates a Social Cost Avoided Emissions value equal to $30,670 annually.

Approval of this contract will advance a significant component of the City's SB 1383 compliance strategy by procuring RNG to meet 30 percent of the City's State requirement over the next three years. This action also furthers the City's Climate Action Plan 2.0 by reducing GHG emissions and supporting strategies for climate resilience.

Submitted by:	Fiscal Review:	Approved by:
Becky Hopkins		for
Becky Hopkins Assistant to the City Manager	Susan Hsieh Director of Finance	Gerry Beaudin City Manager

Attachment:

1. Renewable Natural Gas Program Member Agreement by and between ABAG POWER and the City of Pleasanton
2. Letter dated March 15, 2023, from Rincon Consultants, Inc.

RENEWABLE NATURAL GAS PROGRAM MEMBER AGREEMENT

By and Between

ABAG POWER

and

CITY OF PLEASANTON

RENEWABLE NATURAL GAS PROGRAM MEMBER AGREEMENT

This Renewable Natural Gas Program Member Agreement ("Agreement") is made and entered into as of July 1, 2023, by and between the Association of Bay Area Governments Publicly Owned Energy Resources, a California joint powers agency ("ABAG POWER"), and the City of Pleasanton, a general law city ("Pleasanton").

RECITALS

A. ABAG and the Metropolitan Transportation Commission ("MTC") entered into a Contract for Services under which MTC provides administrative and program services to ABAG. Effective July 1, 2017, the staffs of ABAG and MTC were consolidated. MTC staff now serve both the Association of Bay Area Governments and its local collaboration programs, such as ABAG POWER, and the Metropolitan Transportation Commission. As such, all interactions between ABAG POWER and Pleasanton contained within this Agreement shall be conducted by MTC staff on behalf of ABAG POWER.

B. ABAG POWER was created in 1998 by ABAG and San Francisco Bay Area local governments for the purposes of acquiring energy including, but not limited to, natural gas and electricity, telecommunications services, and such other services and goods as may be necessary or convenient to optimize cost savings and to manage the use or supply of energy or telecommunications services.

C. ABAG POWER currently conducts a voluntary program for pooled purchasing of natural gas on behalf of local government and special district members to provide cost savings, economies of scale that promote price stability and strategic monitoring and participation in regulatory and legislative proceedings.

D. California has adopted various policies and regulatory requirements to achieve the State's goals for reductions in greenhouse gas emissions, including programs and incentives to address the recycling of organic waste pursuant to Senate Bill 1383: Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills, which was adopted in 2016 ("SB 1383") and the promotion and use of low carbon fuels pursuant to the low carbon fuel standard ("LCFS") adopted by the California Air Resource Board ("CARB").

E. One of the key elements in the reduction of greenhouse gas emissions is the generation and use of biomethane, which is commonly referred to as renewable natural gas ("RNG"). For the purposes of this Agreement, the definition of RNG will include compliance credits and fuels generated using RNG, as well as alternative fuels that qualify as low carbon under LCFS.

F. Pursuant to rules and regulations issued by the California Department of Resources Recycling and Recovery ("CalRecycle") to implement SB 1383, local governments are required to procure products from the recycling of organic waste in accordance with jurisdictional targets established

by CalRecycle ("SB 1383 Procurement Requirements") and one of the ways to satisfy procurement targets is to purchase RNG that has been generated as a result of such recycling efforts (as permitted pursuant to California Code of Regulations Section 18993.1 - Recovered Organic Wast Product Procurement Target, Article F (14 CCR Section 18993.1(f)).

G. ABAG POWER established a procurement program for RNG on May 25, 2023 (the "RNG Program") to allow members to voluntarily pool purchasing of RNG and related products that are delivered into the California gas transmission and/or distribution system or compliance credits which are eligible for use in California to further the objectives of the State and local public agencies to reduce greenhouse gas emissions and assist such agencies with meeting their SB 1383 Procurement Requirements.

H. Pleasanton desires to participate in the RNG Program pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the recitals, the covenants, and the terms and conditions of this Agreement, the Parties hereby agree as follows:

AGREEMENT

1. RNG Program. Subject to the terms of the RNG Program approved by ABAG POWER and this Agreement, ABAG POWER shall provide directly or, at its option shall, contract to provide coordination services for the purchase and management of the following products on behalf of eligible members: (i) RNG, or its equivalent, that has been generated pursuant to the requirements of CalRecycle for the purpose of satisfying SB 1383 Procurement Requirements; (ii) RNG, or its equivalent, that is generated for purposes other than SB 1383 compliance, such as LCFS or general reductions in greenhouse gas emissions; or (iii) procurement compliance attributes associated with the generation of RNG, or its equivalent, that are recognized by CalRecycle through a credit or certification process that satisfies SB 1383 Procurement Requirements ("Compliance Credits"). Pleasanton shall be a participant in the RNG Program ("Participant").

2. Program Eligibility. The RNG Program is available to members of ABAG for RNG procurement needs within the State of California. Pleasanton appoints ABAG POWER as its agent to coordinate the purchase and management of RNG and Compliance Credits that are purchased on behalf of Pleasanton pursuant to this Agreement.

3. Services: ABAG POWER shall deliver, or cause to be delivered, the following services to Pleasanton:

3.1 Analyze and evaluate supply and delivery strategies, including assessment of price and market index analyses, for Participant to use RNG and/or Compliance Credits to lower its greenhouse gas emissions, satisfy SB 1383 Procurement Requirements or comply with other policy or regulatory requirements;

3.2 Negotiate and implement agreements for the purchase and delivery of RNG and/or Compliance Credits for Participants;

3.3 Monitor delivery of RNG and/or Compliance Credits pursuant to procurement contracts, including prompt identification of shortfalls or imbalances;

3.4 Perform reporting of RNG and/or Compliance Credits with PG&E, CalRecycle and any other applicable regulatory authority, as necessary to ensure that purchases of RNG and/or Compliance Credits are properly allocated to Participants to satisfy SB 1383 Procurement Requirements;

3.5 Generate invoices for purchases of RNG and/or Compliance Credits for each Participant, as well as the fees for services payable to ABAG POWER; and

3.6 Such other services as are identified in the RNG Program from time to time, such as regulatory and legislative tracking and analysis.

4. Procurement Commitment.

4.1 Pleasanton will provide ABAG POWER with a forecast of the procurement needs it desires to fill with RNG and/or Compliance Credits on a rolling three-year basis commencing on the Effective Date ("Procurement Forecast"), including procurement for SB 1383 Procurement Requirements, procurement for non-SB 1383 uses, and alternative fuels that qualify for LCFS. Accordingly, the first Procurement Forecast will be for the fiscal years commencing on July 1, 2023, 2024 and 2025. Each such forecast will provide a range of volumes and prices upon which Pleasanton is willing to enter into transactions confirmations with third party sources of supply. Pleasanton may update its Procurement Forecast at any time upon forty-five (45) days written notice to ABAG POWER but will update its Procurement Forecast on an annual basis no later than June 1 of each year so that there is always a three-year forecast of procurement requirements. The initial Procurement Forecast for Pleasanton is attached hereto as Exhibit "A".

4.2 ABAG POWER will use the Procurement Forecast of Pleasanton and other participants in the RNG Program to seek out procurement opportunities for Pleasanton and to negotiate prices and terms. ABAG POWER will use the price range identified in Public Agencies' Procurement Forecasts to attempt to obtain the least cost supply offer(s) for participants. All procurements of RNG and/or Compliance Credits by ABAG POWER will be subject to execution of a transaction confirmation (each a "Transaction Confirmation"). If a Transaction Confirmation solely relates to purchases by Pleasanton, then ABAG POWER will arrange the bilateral transaction between Pleasanton and the provider and such confirmation will be a binding contractual commitment of Pleasanton and the provider. If multiple members will participate in a transaction, then ABAG POWER reserves the right to act as the counterparty with the provider, in which case ABAG POWER will execute the Transaction Confirmation with the provider and will prepare a separate Transaction Confirmation between it and each of the Participants setting for the allocation to each Participant and the Participant's contractual obligations as a beneficiary of the primary Transaction Confirmation. ABAG POWER will give Pleasanton no less than ten (10) days written notice of each Transaction Confirmation setting forth the volume and pricing terms,

all of which will be consistent with Pleasanton's Procurement Forecast. Pleasanton will give notice to ABAG POWER within such period whether it accepts the Transaction Confirmation if it is a bilateral transaction or desires to participate in an ABAG POWER facilitated Transaction Confirmation. ABAG POWER will propose participation in a particular transaction opportunity based on the Participants that best fit the opportunity in its reasonable judgment and no Participant will have the right to participate in an opportunity without ABAG POWER's consent. Although Pleasanton will have the right of final approval with respect to each Transaction Confirmation, Pleasanton acknowledges that ABAG POWER will be relying on the Procurement Forecast to negotiate and arrange transactions and that if Pleasanton is consistently unwilling to enter into a Transaction Confirmation that meets the criteria set forth in the Procurement Forecast, ABAG POWER reserves the right to termination Pleasanton's participation in the RNG Program.

4.3 From time to time, ABAG POWER may present Pleasanton with procurement opportunities that have terms outside of the Procurement Forecast, including participation in long term generation projects for RNG. The participation of Pleasanton in such projects will be on a voluntary basis upon mutually acceptable terms between ABAG POWER, Pleasanton, other Participants and the RNG provider.

4.4 Once a Transaction Confirmation has been executed by Pleasanton (either with ABAG POWER or directly with a provider), Pleasanton agrees to comply with its obligations under such Transaction Confirmation, including all payment obligations, whether or not Pleasanton remains as a Participant in the RNG Program. In no event will ABAG POWER be responsible for complying with any obligation of Pleasanton under a Transaction Confirmation.

4.5 Pleasanton will have the right to enter into its own negotiations and transactions for RNG and/or Compliance Credits, provided that such transactions will be in addition to the volumes that Pleasanton has submitted pursuant to any then current Procurement Forecast.

5. Agency Relationship. Pleasanton authorizes ABAG POWER to act as its agent for the RNG Program and does hereby constitute and appoint an authorized officer or agent of ABAG POWER to act on its behalf as its lawful agent for the implementation of the RNG Program and the negotiation of Transaction Confirmations, subject to the final approval and execution of Transaction Confirmation pursuant to Section 4.2. This authorization shall include the right to do and perform all acts contemplated in this Agreement, including, but not limited to:

5.1 Aggregating the supplies of RNG and/or Compliance Credits of Pleasanton with those of other Participants pursuant to the terms and conditions of the RNG Program and the Transaction Confirmations to which Pleasanton is a party;

5.2 Making all filings necessary to ensure that Pleasanton is allocated RNG and/or Compliance Credits in accordance with the SB 1383 compliance requirements or other regulatory compliance programs;

5.3 Arranging delivery of RNG and resolving RNG imbalances, gas storage, and all other operational transactions with the appropriate utility or distribution provider for subsequent redelivery to Pleasanton when physical deliveries are contemplated; and

5.4 Arranging for payment of bills by Pleasanton for RNG and/or Compliance Credits, transportation and other utility, distribution provider or credit clearinghouse charges in accordance with the terms of each Transaction Confirmation.

6. Title. Title to all RNG and/or Compliance Credits will vest in the name of Pleasanton in accordance with the requirements of each Transaction Confirmation.

7. Term. The term of this Agreement shall be for a period of three (3) years, which will automatically be extended on July 1 of each year for one (1) additional year unless earlier terminated in accordance with this Agreement or notice of non-renewal is given by Pleasanton or ABAG POWER no later than May 31 of each year.

8. Fees. Participation in the RNG Program will be subject to the payment of annual fees to reimburse ABAG POWER for the cost of providing the RNG Program and the services contemplated herein. Such fees will be set each year by the ABAG POWER Executive Committee and will be invoiced on a monthly basis. The fees for RNG Program for the year following the Effective Date are attached hereto as Exhibit "B" ("Service Fees").

9. Payment.

9.1 On a monthly basis, unless otherwise approved by Pleasanton, ABAG POWER will provide, or cause to be provided, to Pleasanton an invoice for amounts payable pursuant to each Transaction Confirmation (unless Pleasanton is required by a bilateral Transaction Confirmation to pay such amounts directly), fees imposed by any utility, distribution provider or credit clearinghouse and any ABAG POWER Service Fees. Invoices will be directed to, and payment is to be made directly by, Pleasanton to the escrow account designated pursuant to Article 10 of this Agreement. Payment is due within thirty (30) days of receipt of the invoice. Late payment charges at the rate of one percent (1.0%) per month calculated daily on the outstanding balance will be imposed commencing on the thirty-first (31st) day after the mailing date of the invoice.

9.2 Upon execution of each Transaction Confirmation, if ABAG POWER will be handling payment and invoicing as the counterparty, then Pleasanton shall pay ABAG POWER a working capital deposit equal to two (2) months of payments for RNG and/or Compliance Credits. This deposit is refundable when a Transaction Confirmation terminates. Attached as "Exhibit C" is the calculation of the working capital deposit based on the projected quantity of compliance credits to be purchased by Pleasanton during the initial term.

9.3 In the event Pleasanton fails to make timely payment of any invoice from ABAG POWER, in addition to any other remedy it may have hereunder and notwithstanding the existence of any late payment penalty, ABAG POWER may declare Pleasanton to be in default and terminate this

agreement. ABAG POWER is further authorized to bill Pleasanton for reasonable charges associated with demands for payment on late accounts pursuant to any Transaction Confirmation as well as reasonable charges associated with suspension and resumption of service hereunder.

10. **Disbursement of Funds**. In order to implement the payment of invoices for Transaction Confirmations where ABAG POWER will make payments on their behalf, Pleasanton agrees to the following:

10.1 A deposit account for the purposes of receiving payments by Participants and making payments to providers of RNG and/or Compliance Credits, and other payees as authorized by ABAG POWER will be established and ABAG POWER will use such account to make payments as required by each Transaction Confirmation until payment of each monthly invoice is received from Pleasanton.

10.2 Only ABAG POWER may authorize release of funds from the deposit account and such releases shall only be to those payees allowed pursuant to this Agreement.

11. Change of Regulations. Any future change in law, rule or regulation, or utility practice which prohibits or frustrates ABAG POWER or Pleasanton from carrying out the terms of this Agreement or the RNG Program shall excuse both parties from their obligations, other than the obligation of Pleasanton to make payments due under any Transaction Confirmation. Any funds held in deposit accounts as described in Article 10.1, or otherwise, on behalf of Pleasanton will then be returned.

12. Termination.

12.1 Termination by Pleasanton. Pleasanton may cancel the Agreement by giving ABAG POWER written notice by May 31 of its intent to terminate on June 30 of the third year following the date notice was given or such later date as all Transaction Confirmations then in effect shall have terminated. Nothing contained in this Section 12 will allow Pleasanton to terminate a Transaction Confirmation prior to the date specified therein.

12.2 Termination by ABAG POWER: Actions by any utility, clearinghouse, CalRecycle or other regulatory authorities with jurisdiction over the transactions contemplated in this Agreement to develop rules which are in conflict with sound business practices, or impose unnecessary risk on either party to this Agreement, or substantially prevent ABAG POWER from performing its functions under this Agreement may result in the termination of the RNG Program (or a component of the RNG Program) and this Agreement by ABAG POWER. ABAG POWER shall give Pleasanton written notice ninety (90) days prior to such termination and both parties shall work diligently to minimize the negative effects on ABAG POWER and Pleasanton of such termination.

13. Approvals. Pleasanton will appoint a representative that is authorized to grant any approval, or give any direction required by this Agreement, in writing or orally. Written approvals or directions may be transmitted physically, by facsimile or electronically. Oral approvals will be confirmed in writing by either party.

14. **Attorneys' Fees**. The prevailing party in any action to enforce the terms of this Agreement shall be entitled to recover reasonable attorneys' fees and costs as determined by the arbitrator.

15. **Indemnity**: Pleasanton shall indemnify and hold harmless MTC, ABAG, ABAG POWER and their respective directors, officers, member agencies, agents, and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance or non-performance of the services required by this Agreement, unless such is caused by the negligence of MTC, ABAG, ABAG POWER or their respective directors, officers, member agencies, agents or employees.

16. **Assignment/Security Arrangements**: Pleasanton hereby acknowledges that ABAG POWER may, in order to finance security deposit and cash flow deficits incurred in connection with the operation with the RNG Program, incur short-term debt which may be secured by an assignment, encumbrance or hypothecation of this Agreement and/or payments due hereunder.

17. **Notices**: Notices will be given in writing and will be effective when; (i) personally served; (ii) sent via commercial overnight courier on the date of receipt; or (iii) sent via electronic email, provided, however, that any notice sent via electronic mail will not be effective until acknowledged by the recipient of the electronic email (not by automated response). The following addresses for the giving of notices and billings shall be:

To Pleasanton: Attn: City Manager's Office
City of Pleasanton
P.O. Box 520/ 123 Main Street
Pleasanton, CA 94566
Telephone No: (925) 931-5009
Email: bhopkins@cityofpleasantonca.gov

To ABAG POWER: Attn: Ryan Jacoby
ABAG POWER
San Francisco, CA 94105
Telephone No: (415) 820-7956
Email: rjacoby@bayareametro.gov

18. **Severability**: If any provision of this Agreement or the application of any such provision shall be held by a court of competent jurisdiction to be invalid, void, or unenforceable to any extent, the remaining provisions of this Agreement and the application thereof shall remain in full force and effect and shall not be affected, impaired, or invalidated.

19. **Captions**: The captions appearing in this Agreement are inserted as a matter of convenience and in no way define or limit the provisions of this Agreement.

Signature page follows.

IN WITNESS THEREOF, this Agreement has been executed by the parties hereto as of the day and year first written above.

ABAG Publicly Owned Energy Resources,
a California joint powers agency

By: _____
Name: Andrew B. Fremier
Title: Metropolitan Transportation Commission
Executive Director
Acting Pursuant to the Contract for Services
dated May 30, 2017

City of Pleasanton

By: _____
Name: Gerry Beaudin
Title: City Manager

EXHIBIT A

PROCUREMENT FORECAST

Product	Renewable Natural Gas, Compliance Credits and similar products that qualify for 1383 Compliance Requirements.		
Period of Delivery	July 1, 2023 – June 30, 2024	July 1, 2024 – June 30, 2025	July 1, 2025 – June 30, 2026
Contract Quantity (dekatherms (Dth)	Up to 3,024	Up to 3,024	Up to 3,024
Contract Price ($/Dth)	$0 to $35	$0 to $35	$0 to $35

Product	Renewable Natural Gas, Compliance Credits and similar products for non-1383 Compliance Purposes		
Period of Delivery	July 1, 2023 – June 30, 2024	July 1, 2024 – June 30, 2025	July 1, 2025 – June 30, 2026
Contract Quantity (dekatherms (Dth)	0	0	0
Contract Price ($/Dth)	N/A	N/A	N/A

Product	Alternative fuels that qualify for LCFS credits		
Period of Delivery	July 1, 2023 – June 30, 2023	July 1, 2024 – June 30, 2024	July 1, 2025 – June 30, 2026
Contract Quantity	0	0	0
Contract Price ($/Dth)	N/A	N/A	N/A

EXHIBIT B

SERVICE FEES

Description of Fees	Applicable Period	Cost Not to Exceed
SB 1383 Recordkeeping (Approximately 8 staff hours)	July 1, 2023 – June 30, 2024	$1,500
SB 1383 Recordkeeping (Approximately 8 staff hours)	July 1, 2024 – June 30, 2025	$1,500
SB 1383 Recordkeeping (Approximately 8 staff hours)	July 1, 2025 – June 30, 2026	$1,500

EXHIBIT C

CONTRACT QUANTITY, COMPLIANCE PROJECTIONS, AND WORKING CAPITAL DEPOSIT CALCULATION

TABLE 1: ALLOCATION OF COMPLIANCE CREDITS AND BUDGET

Time Period	Average Monthly Compliance Credits Delivered (MMBtu)	Firm Total Compliance Credits Delivered (MMBtu)	Monthly Invoice based on Average Monthly Compliance Credits Delivered	Period Total Invoices based on Average Compliance Credits Delivered
September 1, 2023 – December 31, 2023	378	1,512	$13,230.00	$52,920.00
January 1, 2024 – June 30, 2024	252	1,512	$8,820.00	$52,920.00
July 1, 2024 – December 31, 2024	252	1,512	$8,820.00	$52,920.00
January 1, 2025 – June 30, 2025	252	1,512	$8,820.00	$52,920.00
July 1, 2025- December 31, 2025	252	1,512	$8,820.00	$52,920.00
January 1, 2026- June 30, 2026	252	1,512	$8,820.00	$52,920.00
Total	-	**9,072**	-	**$317,520.00**

TABLE 2: SB 1383 COMPLIANCE PROJECTIONS

Member	Calendar Year	SB 1383 Unmodified Procurement Requirement (Dth)	AB 1985 Modifier	Effective Procurement Requirement (Dth)	Calendar Year Compliance Credits (Dth)	Projected Effective Compliance Percentage of AB 1985 Requirement
City of Pleasanton	2023	13,794	30%	4,138	1,512	36.5%
	2024	13,794	65%	8,966	3,024	33.7%
	2025	13,794	100%	13,794	1,512	10.9%

TABLE 3: CALCULATION OF WORKING CAPITAL DEPOSIT

ABAG POWER will provide payment handling and invoices services, as requested by Pleasanton. Based upon the procurement forecast and Table 1: Allocation of Compliance Credits and Budget, and pursuant to Section 9.2, Pleasanton shall pay ABAG POWER a working capital deposit as calculated below. This deposit is refundable when a Transaction Confirmation terminates.

Average Monthly Payment for Compliance Credits	Payment Months	Total Working Capital Deposit
$8,800.00	2.0	$17,600.00

Rincon Consultants, Inc.

449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE

info@rinconconsultants.com
www.rinconconsultants.com

Date: March 15th, 2023
Project No: 23-14064

Becky Hopkins, Assistant to the City Manager
City of Pleasanton
123 Main Street
Pleasanton, California 94566
Via email: BHopkins@cityofpleasantonca.gov

Subject: City of Pleasanton CAP 2.0, Greenhouse Gas Analysis of Natural Gas Replacement with Renewable Natural Gas, Pleasanton, CA 94566

Dear Ms. Hopkins:

The City of Pleasanton is proposing to purchase Senate Bill (SB) 1383 compliant renewable natural gas (RNG) to replace the use of fossil natural gas in municipal owned buildings. This effort is primarily for the purposes of meeting the procurement target for organic waste set for the City set by SB 1383. The proposed RNG is a product of wastewater and diverted food waste. The project developer is able to comply with the record keeping requirements of SB 1383 for gas produced at a publicly owned treatment works (POTWs) and demonstrate that the produced RNG meets the eligibility requirements for meeting the procurement target as outlined in 14 CCR Section 18993.1 (h). The project generating the RNG is connected to a distribution system in Southern California and therefore would be procured by the City through a contract.

While the purpose of obtaining RNG for municipal owned buildings is to meet the procurement target for the City set by SB 1383, the replacement of fossil natural gas with RNG also has greenhouse gas (GHG) emission reduction benefits. The following sections of this memorandum describe legislation demonstrating how the environmental attributes of RNG may be applied to GHG emission estimates, summarize the GHG emission reductions associated with RNG procurement by the City, and provide a cost-benefit analysis associate with the GHG savings.

RNG Environmental Attributes

Under California Air Resources Boards (CARB's) Low Carbon Fuel Standard (LCFS) program, the one-to-one replacement of fossil natural gas with pipeline-injected RNG is based on book-and-claim accounting. Book-and-claim accounting refers to the chain-of custody model in which decoupled environmental attributes (in this case GHG emissions reductions) are used to represent ownership and transfer of the fuel without regard to physical traceability. To ensure that environmental attributes are not double counted, chain-of-custody evidence must demonstrate that the environmental attributes linked to the injected RNG are tied with corresponding quantities of natural gas withdrawn.[1] This can be demonstrated through contracts between the producer and the entity withdrawing the natural gas. For

[1] Low Carbon Fuel Standard (LCFS) Guidance 19-05

the procured RNG to meet SB 1383 procurement requirements, a contractual agreement will be required to demonstrate that the RNG has been legitimately procured and meets the eligibility requirements to be counted towards the jurisdictions procurement target. In addition to a contract, there must also be documentation demonstrating: 1) that the procurement compliance attribute is being supplied exclusively to the jurisdiction and there are no duplicate sales or double counting of the same RNG; 2) the total quantity of RNG supplied to the gas utility pipeline system and the total quantity procured is not in excess of the actual pipeline supply; and 3) that the total quantity procured does not exceed the amount used for municipal operations.[2] Generally this type of documentation would satisfactorily demonstrates the transfer of environmental attributes to the jurisdiction purchasing RNG through a contract (i.e., book-and-claim accounting). To ensure compliance with SB 1383 procurement eligibility, the City should review the terms of the regulations (14 CCR Section 18993.2).

GHG Emission Reductions

The combustion of fossil natural gas results primarily in the release of carbon dioxide (CO_2) as well as some methane (CH_4) and nitrous oxide (N_2O), all of which are considered a release of anthropogenic GHG emissions to the atmosphere. Alternatively, the combustion of RNG releases biogenic CO_2, as well as some CH_4 and N_2O. Biogenic CO_2 refers to the carbon in biodegradable materials such as organic waste or wastewater that was originally fixed from the atmosphere by plants. When that same CO_2 is released back to the atmosphere through combustion, the result is a net neutral impact because the CO_2 does not contribute additional carbon dioxide to the atmosphere. However, the CH_4 and N_2O released during RNG combustion still contribute to atmospheric GHG emission levels due to their increased global warming potentials (GWP) as compared to CO_2. The GWP refers to the ability of each gas to trap heat in the atmosphere. For example, one pound of CH_4 gas has 25 times more heat capturing potential than one pound of carbon dioxide gas. The GWP of N_2O is 298.[3]

As such, GHG emission reductions associated with the procurement of RNG in replacement of fossil natural gas are calculated as the difference between combustion of fossil natural gas and RNG where the biogenic CO_2 emissions are considered zero. Table 1 presents the emission factors and GWP applied to the combustion of fossil natural gas versus RNG. The emission factors were obtained from the City's inventories for consistency.

Table 1 GHG Emissions Factors

Source	lbs CO_2/therm[1,3]	CO_2 GWP[3]	lbs CH_4/therm[2]	CH_4 GWP	lbs N_2O/therm[2]	N_2O GWP	MT CO_2e/therm[3,4]
Natural Gas	1.17E+01	1	2.27E-04	25	4.53E-06	298	5.31E-03
Renewable Natural Gas[3]	1.17E+01	0	2.27E-04	25	4.53E-06	298	3.18E-06
Notes: MT CO_2e = metric tons carbon dioxide equivalaents							

[2] Procurement Questions and Answers - CalRecycle Home Page

[3] IPCC. AR4 Synthesis Report: Climate Change 2007. Accessed at: https://www.ipcc.ch/report/ar4/syr/

1. Reported by PG&E in their data delivery forms and utilized in City of Pleasanton's inventory
2. Obtained from the US Community Protocol and utilized in City of Pleasanton's inventory
3. Combustion of renewable natural gas generates biogenic CO_2 which is considered carbon neutral. The GWP for biogenic CO_2 is considered 0.
4. MT CO_2e is calculated by multiplying the GHG by the GWP

The City consumed 121,665 Therms of natural gas in the 2021-2022 fiscal year. For the purposes of this calculation, the estimated reductions are based on the same anticipated quantity of gas needs. Reductions are calculated as the emissions generated from combusted natural gas and combusted RNG based on the percentage of procurement of each gas subtracted from the emissions currently generated from the consumed natural gas at municipal facilities. With the current rate of consumption of natural gas of 121,665 therms, 646.07 MT CO_2e was emitted during the 2021-2022 fiscal year. Table 2 demonstrates the potential GHG reductions based on the quantity of RNG procured to replace natural gas. As shown, the City has the potential to reduce emissions up to 645.68 MT CO_2e annually with 100% replacement of the natural gas with RNG.

Table 2 GHG Emission Reduction

Percent RNG Replacement	Natural Gas Quantity (Therms)	Natural Gas Emissions (MT CO2e)[1]	RNG Quantity (Therms)	RNG Emissions (MT CO2e)[1]	Total Avoided Emissions (MT CO_2)[2,3]
100%	0	0.00	121,665	0.39	645.68
75%	30,416	161.52	91,249	0.29	484.26
50%	60,833	323.03	60,833	0.19	322.84
25%	91,249	484.55	30,416	0.10	161.42

Notes: MT CO2e = metric tons carbon dioxide equivalaents

1. Emissions are calculated by multiplying the quantity of gas by the corresponding emission actor.
2. Total emission reductions are calculated by subtracting the sum of natural gas and RNG emissions from the currently emitted emissions of 646.07 MT CO_2e.
3. The only emissions generated from use of RNG are CH_4 and N_2O, therefore the reduction in emissions is associated with the reduction in CO_2

Cost Analysis GHG Reductions

The cost-benefit of replacing natural gas with RNG has been evaluated based on cost of procurement of the product and the social cost of carbon. The social cost of carbon is defined as the monetary value of net harm or economic damages to society from emitting a metric ton of that GHG to the atmosphere in a given year.[4] The social cost of carbon is modeled based on socioeconomic predictions, climate

[4] https://www.epa.gov/system/files/documents/2022-11/epa_scghg_report_draft_0.pdf

projections, benefits and costs (i.e., climate change impacts on agriculture, energy use, cost of adapting to sea level rise, etc.), and a discount rate (e.g., the rate at which society is willing to trade present benefits for future ones). While the cost to curb GHG emissions today may have immediate economic implications, if GHG emissions are not curbed, society will bear the cost later. Since both routes have economic risk and implications, federal agencies use the social cost of carbon for conducting benefit-cost analyses of policies that affect GHG emissions and determining if the cost and benefits of a proposed policy or action are justified. The current social cost of carbon set by the Environmental Protection Agency (EPA) is $51 per MT CO_2 However, the EPA has proposed a price increase to $190 per MT CO_2 which incorporates recent scientific advances that are more accurate. In anticipation of the price increase, the cost to procure RNG in place of natural gas has been evaluated using the anticipated social cost of carbon. The social cost of CH_4 and N_2O are not included in this cost assessment as the same quantity of CH_4 and N_2O will be emitted with the use of pipeline natural gas or pipeline RNG so there is no difference in social cost of CH_4 and N_2O between the two gas sources.

Table 3 demonstrates procurement cost for natural gas and RNG based on the percent of RNG replacement. The table also includes the social cost of avoided non-biogenic emissions from natural gas combustion. The cost for GHG reduction with this action, or GHG savings, is calculated as the difference in cost between natural gas and RNG procurement with the social cost of carbon included, divided by the emissions avoided. As shown, with the current cost of natural gas, RNG, and social cost of carbon, it costs approximately $133 per MT CO_2 avoided.

Table 3 Cost Analysis of GHG Reductions

Percent RNG Replacement	Natural Gas Cost[1]	RNG Cost[2]	Social Cost of Avoided Emissions[3]	Total Cost for gas procurement[4]	Cost Difference[5]	Cost of GHG Savings ($MTCO_2$)[6]
100%	$0	$425,845	$122,679	$303,166	$86,048	$133.27
75%	$54,279	$319,384	$92,009	$281,654	$64,536	
50%	$108,559	$212,923	$61,340	$260,142	$43,024	
25%	$162,838	$106,461	$30,670	$238,630	$21,512	

Notes: MT CO2e = metric tons carbon dioxide equivalaents

1. Cost of natural gas is determined by multiplying the quantify of procured natural gas in Table 2 by the cost for natural gas, $1.78 per therm.
2. Cost of RNG is determined by multiplying the quantify of procured RNG in Table 2 by the cost for RNG, $3.50 per therm.
3. The social cost of avoided non-biogenic emissions from natural gas are calculated by multiplying the avoided natural gas CO_2 emissions by the EPA revised social cost of carbon for emissions year 2020, $190 per MT CO_2.
4. Total cost for gas procurement is calculated by adding the cost for natural gas and RNG procurement minus the social cost of carbon.
5. The cost difference is calculated by subtracting the current cost for 121,665 therms of natural gas ($217,118) from the calculated total cost for procurement of different amounts of RNG to replace the natural gas.

6.	Cost of GHG savings is calculated as the cost difference divided by the total avoided CO2 emissions in Table 2.

Note that the social cost of carbon increases over time as the impacts of climate change accumulates, increasing the stress on physical and economic systems. In 2050, the social cost of a MT of CO_2 emissions is projected to be \$310/MT CO_2. Assuming the same quantity of gas needs of 121,665 therms in 2050, the cost of natural gas CO_2 emissions is estimated to be \$200,161 in addition the procurement price of natural gas at that time. As cost of RNG is anticipated to decrease over time as supply increases and the social cost of carbon increases, it will become increasingly more economical to replace natural gas consumption with RNG.

If you have any questions regarding this analysis, please contact Erica Linard, Sustainability Project Manager, at 805-586-3183. Thank you for the opportunity to assist with this assignment.

Sincerely,

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