

MEMO



**Discussion/Action
Item #: 9**

Meeting Date: October 20, 2023

To: Board of Directors
From: Director of Engineering, Guy R. Petraborg
Approved by: General Manager, Felipe Melchor

Subject: Approve Limited Term Pilot Study Agreement with Loci Control, Inc. of Wareham, MA. for Automated Control of LFG Collection Wells not to exceed a cost of \$110,000

RECOMMENDATION: That the Board authorize the General Manager to execute a limited term Pilot Study Agreement with Loci Control, Inc. of Wareham, MA. for Automated Control of LFG Collection Wells not to exceed a cost of \$110,000 subject to District Legal Counsel's Concurrence to Form.

Background

ReGen Monterey began collecting landfill gas (LFG) in 1983 when the landfill was about 60 to 65 acres in size. A handful of collection wells were installed at that time and conveyed the LFG to a skid-mounted container with an internal combustion engine and electrical generator to produce renewable energy. At that time, LFG collection systems were in their infancy in the solid waste industry and, even more unusual, were landfill gas to energy projects. At that time, it was not typical for landfills to have a LFG collection system and, if they did, it was connected to a flare to destruct the LFG. Forty years later, approximately 163 acres of the 315-acre permitted Monterey Peninsula Landfill has now been developed for waste disposal. Currently, there are more than 80 LFG wells in the waste mass. The collected LFG is used in the four (4) engine-generator sets to produce about 5 megawatts of renewable energy and/or the enclosed LFG Flare. The LFG destruction equipment are abatement devices for the purpose of controlling emissions from the landfill.

Discussion

The image below presents a typical landfill gas wellhead assembly. The wellhead assembly has a tuning valve and several monitoring ports that can be used manually to test the quality and flow rate of LFG using a portable detection device. Each LFG well is manually monitored at least once per month for compliance recording/reporting and tuning purposes. To complete the field monitoring of the currently developed (~163 acres) Monterey Peninsula Landfill's collection wells it takes two (2) persons an entire day. Please note that the currently developed landfill area is about one-half of the final 'footprint' area of the 315-acre permitted landfill and the associated field monitoring of LFG wells can be expected to take twice as long to complete.

Physical Address

14201 Del Monte Blvd.
Salinas, CA 93908

Mailing Address

P.O. Box 1670
Marina, CA 93933

Phone / Fax

831-384-5313 PHONE
831-384-3567 FAX

Web / Social

ReGenMonterey.org
@ReGenMonterey

Let's not waste this.



FIGURE 1: Typical LFG Wellhead Assembly



In contrast to the manual field monitoring process being completed once or twice a month, an automated control of a LFG collection well is capable of monitoring the well once or twice an hour if desired. This degree of control on a LFG collection well has been found to be appropriate as changes in the well's 'environmental conditions' can occur several times a day. Most of these changes warrant a tuning adjustment of the LFG wellhead to control the quality and quantity of the gas collected. Conditions that impact LFG quality and quantity include, but are not limited to, the following:

- Changes in ambient temperature,
- Changes in Barometric Pressure,
- Precipitation caused changes to near surface soil conditions,
- Accumulation of liquids in the collection well (not common on the semi-arid Central Coast region),
- Disturbance by wildlife or persons, and
- Changes in the type and quantity of organics (decomposable fraction) in the waste stream

Being able to manage the LFG quality and quantity automatically several times a day, and to "Control Set Points" that are managed by the operator, allows for optimizing LFG collection and control system performance. In the last 5 years or so, this has become increasingly important as Renewable Natural Gas (RNG) development projects have become increasingly popular.

The ability to automatically adjust a LFG collection well several times a day to operator managed "Control Set Points" represents an additional 'tool' for ReGen to use to improve quality and quantity of LFG collected and, as a result, reduce any 'fugitive surface emissions' from the landfill. Figure 2 below presents a partial list of benefits of an automated LFG well control system.



FIGURE 2: Partial List of Benefits of Automated Control of LFG Collection Wells

Loci Automated Landfill Gas Collection

Increases Landfill Gas Collection By 15% or More

Loci Controls increases revenue through improved gas flow and quality and decreases costs and reduces risks through more efficient operations.

 <p>Increase Revenue</p> <ul style="list-style-type: none">✓ Maximize methane gas flow✓ Control N2 in the wellfield✓ Automated valve adjustments✓ Better collection efficiency✓ Reduce plant downtime	 <p>Increase Productivity</p> <ul style="list-style-type: none">✓ For both plant and employees✓ Lower labor cost for wellfield tuning and O&M✓ Reduce plant maintenance costs	 <p>Reduce Environmental, Health & Safety Risks</p> <ul style="list-style-type: none">✓ Reduce man hours spent in wellfield✓ Reduce fugitive LFG emissions✓ Reduce odors
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FIGURE 3: Typical Loci Control Equipped LFG Collection Well

Automated Landfill Gas Collection with Loci

Our collection well mounted products make continual, automated adjustments to valve position based on measurements to respond to the constantly changing environment.

MEASURE

- H64
- CH₄ 58.5%
- CO₂ 41.0%
- O₂ 0.1%
- Balance Gas 0.4%
- Flow (SCFM) 41
- LFG Temp. 88 F

CONTROL

Automated tuning through control algorithm
User gas composition thresholds

SERVICE

Automated calibration
Routine maintenance
Rapid troubleshooting leveraging field technicians

FIGURE 4: Example Loci Control Interface Screenshot

WellWatcher Platform

Our cloud-connected online platform displays live data from each well and allows users to view historical data through our user interface.

YOUR LOGO HERE

Dashboard

Map View

Table View

Well Details

Reports

Settings

Active Wells: 210

Total CH₄ Flow: 5,302 SCFM

Total LFG Flow: 8,841 SCFM

Total CO₂: 45.0%

Total CH₄: 60.0%

WELLWATCHER FEATURES

- ✓ 24/7/365 remote visibility on LFG operations
- ✓ Accessible via desktop, laptop and tablet
- ✓ Visual trending
- ✓ Proprietary algorithms
- ✓ Increased technician productivity



FINANCIAL IMPACT

Staff estimates that the monthly fee for the limited term Pilot Study is \$8,000 (refer to Page 2 of the attached Service Agreement; Items # 1 and 2 only; Item #3 not required) or a cost of \$96,000 for the 12-month study period. In addition, staff is estimating a \$10,000 cost for Shipping and Installation costs, and \$4,000 as a contingency amount should incidental costs be experienced during the pilot study. Thus, a total cost of \$110,000 is estimated for the 12-month study period to assess the operational performance of automated control of twenty (20) LFG collection wells.

Funds for this limited term Pilot Study project (12 months) are not included in the FY2023/2024 operating expense budget (~7 months of the pilot study or ~\$66,000) and will need to be included in the FY2024/2025 expense budget (~5 months of the pilot study or ~\$44,000). Staff will manage the expenses budgeted for LFG operations for the remaining 7 months of the FY2023/2024 budget year to maintain the approved budget in this category.

CONCLUSION

Conducting a study to assess the operations, functionality, performance, and costs of an automated control of LFG collection wells will help inform future discussions and decisions about prospective capital investments in the LFG Collection and control system (GCCS) inclusive of both the landfill's piping systems (collection and distribution) and the LFG destruction systems (abatement and control devices such as the enclosed flare and the renewable energy gen-sets). Staff therefore recommends the Board authorize the General Manager to execute a limited term Pilot Study Agreement with Loci Control, Inc. of Wareham, MA. for Automated Control of LFG Collection Wells not to exceed a cost of \$110,000 subject to District Legal Counsel's Concurrence to Form.

ATTACHMENT: Service Agreement from Loci Controls, Inc. dated 10/11/2023

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LOCI REAL TIME DATA AND CONTROL SYSTEM FOR LANDFILL GAS COLLECTION

Service Agreement

Agreement Date: <u>10/11/2023</u>	Agreement No: <u>09182023-Monterey</u>
<u>LOCI</u>	<u>COMPANY</u>
Name: <u>Loci Controls, Inc.</u>	Name: <u>Monterey Regional Waste Management District</u>
Address: <u>14 Kendrick Road, Suite 2</u>	Address: <u>14201 Del Monte Blvd</u>
City/State/Zip: <u>Wareham, MA 02571</u>	City/State/Zip: <u>Salinas, CA 93908</u>
Contact Name: <u>Raynor Roszkowicz</u>	Contact Name: <u>Guy Petraborg</u>
Phone No.: <u>(774) 991-4303</u>	Phone No.: <u>831-384-5313</u>
Email: <u>raynor@locicontrols.com</u>	Email: <u>gpetraborg@regenmonterey.org</u>

Description of Services:	The Loci Real Time Data and Control System for Landfill Gas Collection Service Agreement (“Agreement”) is made and entered into between Company and Loci (herein after individually referred to as a “Party” and together as the “Parties”). Loci or its Representatives shall, install, operate, and maintain real time data and control system for landfill gas collection equipment as configured for the Location’s (as defined below) installation site as designated in this Agreement (specifically, Loci Controllers and Loci Sentries, the “Equipment”) and provide the associated services further detailed in Attachment A-Scope of Services (the “Services”).		
Installation Site:	14201 Del Monte Blvd, Salinas, CA 93908 (the “Location”)		
Landfill Owner:	Monterey Regional Waste Management District (“ReGen Monterey” or “ReGen”)		
Installation Date:	TBD		
Term:	One (1) Year		
Term Start Date:	Term begins when Loci invoices for first month of service fees	Term End Date:	Twelve (12) months from the Term Start Date or until terminated by either Party per the Term Section of this Agreement
Attachments:	A – Scope of Services;		
Notes:	The number of anticipated Loci units required to support Company gas collection operations are set forth in the schedule of Subscription Fees below and Loci is obligated to provide only the number of units so described; however, the number of applicable units can be modified in the future by a mutually approved amendment to this Agreement.		
Pricing Expiration Date:	December 31, 2024	Service fees subject to change if installation date isn’t defined before pricing expiration date	

Loci Controls
14 Kendrick Road, Suite 2
Wareham, MA 02571

LOCI REAL TIME DATA AND CONTROL SYSTEM FOR LANDFILL GAS COLLECTION

SERVICE FEES – (to be invoiced monthly)					
Item #	Product/Description	Qty of Units	Term in Months	Charge Per Unit	Total
1	Sentry	TBD	12	\$365.00	\$TBD
2	Controller	20	12	\$365.00	\$7,300.00
3	Liquid Level Measurement, add-on	TBD	12	\$35.00	\$TBD
Total – Monthly Fee					\$TBD

SERVICES – INSTALL (one-time fees to be invoiced upon completion)					
Item #	Product/Description	Units	Qty	Charge Per Unit	Total
1	Shipping/Installation Fees	Ea.	TBD	\$400.00	\$TBD
2	Additional Installation Fees –				TBD after Site Survey
Total					\$TBD

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THE FOLLOWING PAGES SET FORTH ADDITIONAL TERMS

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Service Agreement Continued Terms

1. **Equipment and Services.** Loci shall provide and install the Equipment and diligently perform the Services for Company as described on Page 1. Notwithstanding the method of installation of the Equipment at the Location, the Equipment shall not be considered a "fixture" with respect to Company's assets, and all Rights, Title, and Interest to the Equipment installed at Location shall be retained by Loci. The Parties shall protect and keep the other Party free and clear from the filing of any liens or encumbrances upon the title to the Equipment, or the assets of Company. Loci shall devote such working time as is necessary to the proper installation of the Equipment as promptly as possible but no later than the Installation Date on Page 1.
2. **Agreement.** This Agreement sets forth the entire agreement between Loci and Company, and no terms, conditions, understanding, or agreement purporting to modify or vary the terms of this Agreement shall be binding unless hereafter made in writing and signed by Loci and Company. All documents listed as Attachments on Page 1, shall be incorporated into this Agreement; however, in the event of any conflict between attachments and the terms and conditions of this Agreement, the terms and conditions of this Agreement as expressly stated herein will take precedence.
3. **Term.** The term of this Agreement shall commence on the Term Start Date and shall continue for one (1) year unless terminated by either Party upon thirty (30) days written notice. Loci shall remove all Equipment within thirty (30) days of termination at no charge to Company.
4. **Payment Terms.** Amounts to be paid by Company to Loci for the Equipment and Services is set forth on Page 2. Monthly Service Fees shall be invoiced on the 15th of each month and will be due and payable in advance of the first day of each month. Company shall make all payments electronically through Automated Clearing House ("ACH"). Upon execution of this Agreement, Loci shall provide Company with an ACH enrollment form which Company shall promptly complete and return to Loci. All other fees listed on Page 2 shall be invoiced upon completion of Services and shall be due and payable net, ten (10) days from the invoice date.
5. **Assignment.** Company may not, without the written consent of Loci (which consent shall not be unreasonably withheld, conditioned, or delayed), assign this Agreement and any of its rights or obligations hereunder; provided, however, that Company may assign this Agreement without Loci's prior written consent to an affiliate of Company or to the successor in interest to Company's business in the event of a merger, consolidation, or sale of all or substantially all of the assets of such business. In the event of any assignment to which Loci has not consented, Company shall remain liable as a guarantor for any payment obligations incurred under this Agreement before such assignment. Loci shall not assign this Agreement without the prior written consent of Company (which consent shall not be unreasonably withheld, conditioned, or delayed); provided, however, that Loci may assign this Agreement without Company's prior written consent to an affiliate of Loci or to the successor in interest to Loci's business in the event of a merger, consolidation, or sale of all or substantially all of the assets of such business.
6. **Confidential Information.** (a) In its performance of the Services, Loci and Company may receive, or become aware of information, data, or communications of a proprietary nature ("Confidential Information"). Loci and Company shall protect and maintain the secrecy of the Confidential Information, and not discuss with, or disclose to, any third party the Confidential Information, without the prior written consent of the other Party. Loci has the right to use the data collected during the term of this Agreement, for internal or external purposes, so long as no identification of the Company, or the Location, is made, or is attributable to the data. Loci and Company shall make its employees, subcontractors, consultants, agents, officers, directors, investors, and lenders (collectively "Representatives") aware of the obligations hereunder and secure their agreement to the terms hereof. Upon termination of this Agreement, all Confidential Information, with the exception of the data collected by Loci, shall be returned to the Party providing such Confidential Information or destroyed, except that this requirement shall not apply to Confidential Information that is retained as part of automatic electronic data backup systems or processes as may be required by law, other regulatory requirements, or internal document retention policies, provided that such Confidential Information remains subject to this Agreement. These obligations of confidentiality shall survive the termination of this Agreement.
 - (b) Notwithstanding the foregoing, the obligations in this Section 6 shall not apply to information which is:
 - (i) already in the public domain;
 - (ii) disclosed to either Party by a third party with the right to disclose it in good faith; or
 - (iii) specifically exempted in writing from the applicability of this Agreement.

LOCI REAL TIME DATA AND CONTROL SYSTEM FOR LANDFILL GAS COLLECTION

7. **Compliance with Laws and Company Safety Requirements.** Loci shall, and shall require all of its employees, subcontractors, consultants, and agents to comply with all (i) federal, state, and local laws, regulations, rules, ordinances, and orders of any kind which are applicable to Loci's installation of the Equipment and performance of the Services and (ii) safety, health, or other administrative requirements, rules, regulations, or procedures adopted by Company. All field personnel that are authorized representatives of Loci shall complete Loci's safety training prior to the performance of any Services hereunder.
8. **Indemnification.** Loci and Company shall indemnify, hold harmless, and defend the other Party, its affiliates and parent companies, from and against any and all claims, actions, suits, damages, liabilities, costs, and/or expenses (including, without limitation, attorney's fees and expenses of investigation), regardless of whether they arise out of, or result from, third party claims, resulting from (i) personal injury (including, without limitation, death) to any Party (including, without limitation, Loci, Company, and their employees), or (ii) damage to the property thereof, which are caused by or arise in connection with Loci's or Company's performance under this Agreement, irrespective of the cause of such injuries or damage, unless caused by either Party's or third parties' gross negligence or willful misconduct or breach of this Agreement. The indemnity obligations in this Section 8 shall survive in all respects the termination of this Agreement. Notwithstanding anything contained in this Agreement to the contrary, each Party hereby releases the other Party from liability for indirect, special, punitive, exemplary, or consequential damages or losses including, but not limited to, damages or losses for lost production, lost revenue, lost product, lost profits, lost business, or business interruptions unless such damages are caused by the gross negligence or willful misconduct of the liable Party.
9. **Independent Contractor.** Loci shall act as an independent contractor pursuant to this Agreement and nothing herein shall create an agency relationship between Company and Loci. Furthermore, Loci understands that it has no authority to make or imply any commitments which are binding upon Company without written consent of Company. Loci has the right to use the data collected during the term of this Agreement, for internal or external purposes, so long as no identification of the Company is made. None of Loci's employees or agents shall be considered or in any way represent themselves as being employees of Company or be entitled to any of the benefits supplied by Company to its own employees.
10. **Insurance.** During the term of this Agreement, Loci shall keep in force the following minimum insurance coverages on an occurrence basis with insurance companies rated "B+" or better by A.M. Best rating service:

COVERAGES	LIMITS OF LIABILITY
Workers' Comp Employers' Liability Insurance	Statutory Per Occurrence \$1,000,000
Comprehensive General Liability (including Contractual Liability and Completed Operations)	Per Occurrence \$2,000,000 General Aggregate \$2,000,000
Comprehensive Automobile Liability Insurance, including non-owned and hired vehicle coverage	For bodily injury and property damage Per Occurrence \$1,000,000
Comprehensive Excess Umbrella	Per Occurrence \$2,000,000

The comprehensive general liability insurance shall be specifically endorsed to provide coverage for the contractual liability accepted by Loci in this Agreement. Said insurance policies shall contain cross liability provisions and shall name Company as additional insured to policies A, B, C, & D above with respect to all activities arising out of the performance of the Services under this Agreement. Prior to commencing performance of the Services, Loci shall furnish Company certificates of insurance or other evidence satisfactory to Company to the effect that such insurance has been procured and is in force. At least thirty (30) days prior to the expiration of any of the insurance policies required herein, Loci shall furnish Company certificates of insurance, in accordance with the terms hereof, evidencing the renewal of such insurance for a period equal to at least the earlier of (a) the expiration of the term of this Agreement and (b) one (1) year from the date of expiration of the then current insurance policies. Such Certificates shall afford Company thirty (30) days written notice of cancellation or of a material change in coverage.

11. **Standard of Performance.** For so long as the Services set forth herein are being provided by Loci: (a) Loci warrants that the Services shall be performed in a good and workmanlike manner, consistent with that level of care and skill ordinarily exercised

Loci Controls
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Wareham, MA 02571

LOCI REAL TIME DATA AND CONTROL SYSTEM FOR LANDFILL GAS COLLECTION

by other reputable contractors under similar circumstances at the time the Services are performed. Loci further warrants that Loci will have good title, free and clear of any liens, to any and all materials and supplies provided by Loci hereunder and such materials and supplies shall be fit for their intended purpose, free from any defects, and conform to the specifications and descriptions set forth herein, if any. The foregoing warranties shall survive any inspection or acceptance of the materials, supplies, Services, and payment therefor by Company and shall run to Company and its successors, assigns, and customers and shall not be exclusive. (b) Loci shall, at its expense, re-perform all Services and replace all materials and supplies which fail to conform to the foregoing warranties. Loci shall be responsible for all repair and replacement costs for up to two (2) damaged units of Equipment per term of this Agreement. After which, Company shall be responsible for repair or replacement costs (up to \$5,000 for a Controller and \$5,000 for a Sentry) for damage to Equipment.

12. **Governing Law; Arbitration; Jurisdiction.** This Agreement shall be governed by and construed in accordance with the laws of the state of Delaware without regard to its conflict-of-law rules. In the event the Parties are unable to in good faith resolve any dispute or claim arising out of, relating to, or having connection with this Agreement, following a period of ten (10) days after written notice of a dispute to allow for such good faith negotiations between the Parties, such dispute or claim shall be referred to and finally, and exclusively resolved by binding arbitration administered by the American Arbitration Association (the "AAA") in accordance with its General Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. Such arbitration shall take place in Monterey County, California before a single arbitrator selected in accordance with the procedures of the AAA unless the amount in issue exceeds \$1,500,000, in which case, there shall be a panel of three (3) AAA arbitrators appointed in accord with the AAA rules, each of whom shall be a licensed attorney with not less than fifteen (15) years practice experience. Any arbitration hearing shall commence within 180 days of the filing of the initial demand and conclude within thirty (30) days of the initial hearing date. The arbitrator or applicable panel shall be authorized to limit discovery to the extent necessary to complete the proceedings during the allowed time period. The foregoing agreement to arbitrate shall not limit a Party from pursuing, without pre-filing negotiation, emergency injunctive relief with the AAA under Rule 38 of the General Commercial Rules or in a court of competent subject matter jurisdiction in Monterey County, California.
13. **Permits, Licenses, Taxes.** During the term of this Agreement, Loci has and will maintain all licenses and permits required for the performance of the Services. Company agrees to pay taxes (other than federal and state income taxes on the income of Loci) incurred solely due to Company's use or operation of the Equipment during the term of this Agreement. If Loci or any other agent of Loci incurs any such costs or expenses, Company agrees to promptly reimburse Loci for the same.
14. **Wireless Service.** Company expressly understands and agrees that it has no contractual relationship whatsoever with the underlying wireless service provider or its affiliates or contractors and that Company is not a third-party beneficiary of any agreement between Loci and the underlying carrier.
15. **Severability.** If any term or provision of this Agreement or the application thereof to any circumstance shall be invalid or unenforceable, the remainder of this Agreement or the application thereof to any circumstance other than that to which it is invalid or unenforceable shall not be affected.
16. **Notices.** All notices, requests, and other communications under this Agreement must be in writing, and must be mailed by registered or certified mail, postage prepaid and return receipt requested, or delivered by hand to the Party listed on Page 1, or sent by fax, or sent by e-mail. Notice shall be given to the Parties at the addresses on Page 1. Either Party may change the individual or location for receipt of notice hereunder by providing written notice to the other Party in the manner described in this Section.

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LOCI REAL TIME DATA AND CONTROL SYSTEM FOR LANDFILL GAS COLLECTION

In witness whereof, the Parties accept this Service Agreement	
Loci Controls, Inc.	Monterey Regional Waste Management District
_____ (LOCI)	_____ (COMPANY)
By: _____ (Signature)	By: _____ (Signature)
_____ (Authorized Agent's Typed Name and Title)	Felipe Melchor, General Manager _____ (Authorized Agent's Typed Name and Title)
Date: _____	Date: _____

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THE FOLLOWING PAGES SET FORTH ADDITIONAL TERMS

LOCI REAL TIME DATA AND CONTROL SYSTEM FOR LANDFILL GAS COLLECTION

ATTACHMENT A
SCOPE OF SERVICES

Loci and Company agree to the following scope of services to be provided by Loci at the designated Location, as shown on Page 1.

1. Equipment.
 - a. General Terms. Loci or its Representatives shall install, operate, and maintain real time data and control system for landfill gas collection Equipment as configured for the Location as designated on Page 1. Final Equipment configuration may change over time based on optimizing the Location's gas collection process and economics.
 - b. Title to the Equipment. Title to the Equipment shall be retained by Loci. The Equipment shall not be considered a "fixture" with respect to the Company's assets, notwithstanding the method of installation of the Equipment at the Location.
 - c. Maintenance and Repair. Loci shall be responsible for all maintenance of Equipment during the term of this Agreement. Loci shall be responsible for all repair and replacement costs for up to two (2) damaged units of Equipment per term of this Agreement. After which, Company shall be responsible for repair or replacement costs (up to \$5,000 for a Controller and \$5,000 for a Sentry) for damage to Equipment.
 - d. End of Term Obligations. Unless mutually agreed upon, Loci shall remove all Equipment within thirty (30) days of the termination date at no cost to Company. Company shall permit Loci and its Representatives access to the Location at times reasonably necessary for the purposes of effecting such removal.
2. Schedule and Term. Loci plans to complete installation of Equipment as noted on Page 1. Services, as defined in Section 3(a), shall commence as of the date the installation is completed and shall continue unless terminated with thirty (30) days written notice by either Party in accordance with the terms herein.
3. Scope of Work, Terms and Conditions. Loci shall provide the following Services to Company under the terms and conditions set forth hereunder:
 - a. Software and Services Provided.
 - i. At mutually agreed upon intervals, Loci shall provide remote monitoring and recording of gas composition including CH₄, CO₂, Balance Gas (trace, and N₂), LFG and CH₄ flow, LFG temperature, pressure above and below Loci actuated valve (Pa and Pb), and valve position, ("Data") gathered from each well-head where the Loci Equipment has been installed. For Sentry H header monitoring, Loci shall provide remote monitoring and recording of pressure, temperature, gas composition including CH₄ percentage, external mechanical flow meter flow, O₂, CO₂, and Balance Gas.
 - ii. Loci shall provide Company access to the Loci web based WellWatcher™ Analytics Platform that displays current and historical Data associated with the well-field operations.
 - iii. Within thirty (30) days after installation, Loci shall commence automated valve control of all Controllers and adjust individual well-head flow to maximize methane energy value while maintaining Data control parameters as defined:
 1. CH₄ equal to or greater than TBD
 2. O₂ as a process control variable equal to or less than TBD
 3. Balance Gas equal to or less than TBD
 - iv. Loci will not be responsible for control of Equipment or Company access to Data if communication to/from the Location is disrupted for any reason. If the communication disruption is due to Loci's Equipment, restoration of services will occur as quickly as commercially reasonable.

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b. Company's Obligations:

- i. Access to the Location. Company shall provide Loci with reasonable access to the Location during the term such that Loci may install, operate, maintain, and remove the Equipment upon termination of this Agreement.
- ii. System Performance Data. Company shall provide to Loci, upon request, the following landfill system performance data from the Location as generated throughout the term:
 - a. System vacuum
 - b. Total system flow
 - c. Odor complaints
 - d. Aggregate Flow and Gas Composition data from Plant Chromatograph
- iii. Notice of Outage. Company shall make commercially reasonable efforts to provide Loci with forty-eight (48) hours' advance notice of:
 - a. Well collection or power system maintenance at the Location
 - b. Timely notice of planned or unplanned outages at the Location
- iv. Company shall, at its sole cost, provide routine maintenance of the wells with installed Equipment to ensure proper functionality of the well. As necessary, maintenance or replacement of the following will be required of Company:
 - a. Manual valve and/or manual valve stem
 - b. Quick connect fittings on the well-head
 - c. Flexible tubing
 - d. Replacement well-heads
 - e. Headers, jumpers, leachate removal, pumps, etc.
- v. Reporting. Company will be responsible for all reporting required by the United States Environmental Protection Agency (EPA) and/or other relevant regulatory bodies related to monitoring of specific well-heads. Installation of Loci Equipment will not interfere with Company's ability to take measurements at all well-heads for compliance purposes.
- vi. Override and Tampering: Company, at its sole discretion, has the right to operate the manual valves ("Override") where the Loci Equipment has been installed. Except in emergency, Company will notify Loci in the event of any proposed Override at least twenty-four (24) hours prior to making any changes. Company will not tamper with or make changes to the Equipment except as provided above.

c. Responsibilities. Parties to this Agreement will divide responsibilities as follows:

All reporting to EPA or other regulatory bodies	Company
All required well-head compliance measurements	Company
Maintenance of well-field	Company
Maintenance, calibration, etc. of Loci Equipment installed	Loci
Control of well-heads with Loci Equipment installed	Loci
Advice to Company on gas collection system enhancements and support in troubleshooting well field operational problems	Loci

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