



# South Coast Air Quality Management District

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SENT VIA E-MAIL:

November 15, 2024

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**Draft Initial Study/Mitigated Negative Declaration (MND) for the Proposed  
Bowerman Power Renewable Natural Gas Plant Project (Proposed Project)  
(SCH No. 2024100760)**

South Coast Air Quality Management District (South Coast AQMD) staff appreciate the opportunity to review the above-mentioned document. The Orange County Waste and Recycling (OCWR) is the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. To provide context, South Coast AQMD staff has provided a brief summary of the project information and prepared the following comments.

Summary of Project Information in the MND

Based on information provided in the MND, the Proposed Project consists of construction and operation of: 1) a renewable natural gas (RNG) production plant on 4.24 acres of undeveloped land; and 2) approximately 2.4 miles of an underground pipeline installed by SoCalGas.<sup>1,2,3,4</sup>

- The RNG production plant for the Proposed Project will be located within the 725-acre Frank R. Bowerman (FRB) Landfill (South Coast AQMD Facility ID #69646).<sup>5</sup> It will be adjacent to both the Bowerman Power Plant, a 19.6-megawatt landfill gas-to-energy facility (South Coast AQMD Facility ID #157152), and the existing FRB landfill flare station (South Coast AQMD Facility ID #117922 under ECOGAS Pacific Rim Limited). Both the Bowerman Power Plant and the FRB Landfill flare station are also situated within the FRB Landfill boundaries. The FRB Landfill is located in unincorporated Orange County, California, 92602, southeast of the intersection of Bee Canyon Access Road and State Route 241.<sup>6</sup>
- SoCalGas will construct a new 12-inch-diameter underground pipeline to transport RNG from the Proposed Project's RNG production plant to the existing SoCalGas pipeline at the intersection of Portola Parkway and Jeffrey Road in the City of Irvine, Orange County, California.<sup>7</sup> Approximately 2.0 miles of this pipeline will be located along the Bee Canyon Access Road, including a segment within the FRB Landfill boundary.<sup>8</sup> The remaining 0.4

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<sup>1</sup> Draft Mitigated Negative Declaration for the Bowerman Power Renewable Natural Gas Plant Project (MND). 2.0 Project Information. p. 2-2.

<sup>2</sup> MND. 2.0 Project Information. p. 2-3.

<sup>3</sup> MND. 3.0 Environmental Checklist. p. 3-54.

<sup>4</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 41.

<sup>5</sup> MND. 2.0 Project Information. p. 2-3.

<sup>6</sup> MND. 2.0 Project Information. p. 2-1.

<sup>7</sup> MND. 2.0 Project Information. p. 2-4.

<sup>8</sup> MND. 2.0 Project Information. p. 2-3.

miles will run along Portola Parkway.<sup>9</sup> Additionally, as stated in the MND, “SoCalGas will develop a POR [Point of Receipt] Facility which will receive RNG from the plant, odorize, compress, and insert the RNG into its pipeline.”<sup>10</sup>

The Bowerman Power Plant processes raw landfill gas (LFG) generated by the FRB Landfill. Currently, any LFG not processed by the Bowerman Power Plant is incinerated at the FRB landfill flare station, which consists of six flares.<sup>11</sup> The Proposed Project aims to: 1) process the excess LFG that is currently incinerated at the FRB landfill flare station, converting it into RNG that meets SoCalGas's specifications; and 2) deliver the RNG to SoCalGas.<sup>12,13</sup> The MND also states that the RNG plant will be designed to process up to a maximum of 6,000 standard cubic feet per minute (scfm) of LFG at the inlet and will be automated to allow operations with minimal staffing.<sup>14, 15</sup> A review of aerial photographs by South Coast AQMD staff indicates that the nearest sensitive receptors, consisting of single-family homes, are located approximately 4,235 feet southwest of the Proposed Project site. Construction for the Proposed Project is anticipated to begin in the first quarter of 2025 and is expected to last approximately 18 months.<sup>16</sup>

### South Coast AQMD Comments

#### *Greenhouse Gas Emissions and CEQA Significance Evaluation*

Based on Section 2.2, *Project Description* of the MND, the Lead Agency proposes to develop the RNG Plant to process a maximum of 6,000 scfm of raw LFG (46–53% methane (CH<sub>4</sub>)). This RNG Plant is intended to process excess LFG from the Frank R. Bowerman Landfill Gas Collection and Control System, which would otherwise be incinerated at the adjacent flare station, and deliver the processed product gas, RNG to SoCalGas.

The Proposed Project’s greenhouse gas (GHG) emission estimates are summarized in Table 3-8, *Greenhouse Gas Emissions Summary and Significance Evaluation* in Section 3.4.8. A portion of the GHG emission estimates in Table 3-8 appear to have been calculated using the California Emissions Estimator Model (CalEEMod) for direct on-site and off-site GHG emissions from construction and operation, as well as indirect off-site GHG emissions from electric power, water conveyance, and waste disposal. Meanwhile, the GHG emissions from stationary sources, including the RNG thermal oxidizer, RNG flare, and emergency generator, were calculated separately and added to Table 3-8. However, the GHG analysis in the MND neither appears to include the baseline GHG emissions from the LFG itself, nor the GHG emissions from the proposed flare and the product gas that will be sent to SoCalGas and other sources. The MND states that only anthropogenic GHGs (CH<sub>4</sub> and N<sub>2</sub>O from the tail gas combustion), not biogenic GHGs from the LFG itself, were included in the analysis.

While this approach may be suitable for the purpose of complying with California’s Greenhouse Gas Mandatory Reporting Rules, CEQA Guidelines Section 15064.4 requires a Lead Agency to make a

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<sup>9</sup> MND. 2.0 Project Information. p. 2-3.

<sup>10</sup> MND. 2.0 Project Information. p. 2-4.

<sup>11</sup> MND. 2.0 Project Information. p. 2-3.

<sup>12</sup> MND. 2.0 Project Information. p. 2-4.

<sup>13</sup> MND. Figure 2-5 RNG Process Design Flow.

<sup>14</sup> MND. 2.0 Project Information. p. 2-4.

<sup>15</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 2.

<sup>16</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 8.

good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the *full scope* of all sources of GHG emissions.<sup>17, 18</sup> Therefore, as explained in further detail below, the MND should evaluate all GHG emissions, including CO<sub>2</sub> from the tail gas from the thermal oxidizer as well as carbon dioxide (CO<sub>2</sub>), CH<sub>4</sub>, and nitrous oxide (N<sub>2</sub>O) from the proposed flare, and compare the total post-project GHG emissions in terms of carbon dioxide equivalents (CO<sub>2</sub>eq) to the existing environmental setting/baseline conditions.

In addition, it is unclear in the MND how the CEQA baseline for the existing environmental setting and post-project GHG sources were defined for the Proposed Project. The GHG baseline should discuss existing conditions, including direct and indirect on-site and off-site sources such as the 6,000 scfm of raw LFG (46–53% methane) currently collected and sent to the existing flare. To calculate GHG emissions for both the baseline and the Proposed Project (e.g., post-project conditions), the Lead Agency is recommended to first convert the emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O into CO<sub>2</sub>eq by applying the appropriate Global Warming Potentials (GWPs) and then subtract the baseline emissions from the post-project emissions to determine the incremental change.<sup>19</sup> The GHG analysis in the MND should also discuss post-project scenarios for GHG sources by addressing both construction and all operational GHG sources. GHGs from short-term construction activities are typically amortized over 30 years. To amortize GHGs from temporary construction activities over a 30-year period (estimated life of the project/equipment), the amount of CO<sub>2</sub>eq emissions during construction are calculated and then divided by 30. Relative to operational activities, the GHG analysis should include all direct and indirect on-site and off-site sources, including but not limited to the RNG product gas sent to SoCalGas, RNG thermal oxidizer, RNG flare, and supplemental fuel (natural gas) for flare and thermal oxidizer, emergency generator, energy use, fugitive leak methane, and employee transportation.<sup>20</sup>

Once the baseline and post-project GHG sources are defined and their emissions are quantified, the net change of GHGs between the two should be compared to the South Coast AQMD's air quality significance threshold of 10,000 metric tons per year (MT/yr) of CO<sub>2</sub>eq to determine the significance of the GHG impacts. As a result, the Lead Agency is recommended to revise the GHG analysis in the revised CEQA document or the Final MND.

### *Air Dispersion Modeling Parameters*

Fenceline Boundary and Worker Receptor Locations in Health Risk Assessment (HRA): Upon reviewing the AERMOD modeling files for the operation phase, South Coast AQMD staff noted that discrete cartesian receptors were placed along the large fenceline boundary of the 725-acre FRB Landfill but not along the smaller fenceline boundary for the 4.24-acre portion of the RNG production plant, as defined in the Project Description in Section 2 of the MND.<sup>21</sup> This smaller

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<sup>17</sup> 2018 Amendments to CARB Mandatory Reporting Regulation are available at <https://ww2.arb.ca.gov/mrr-regulation>.

<sup>18</sup> CEQA Guidelines Section 15064.4, available at <https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-5-preliminary-review-of-projects-and-conduct-of-initial-study/section-150644-determining-the-significance-of-impacts-from-greenhouse-gas-emissions>.

<sup>19</sup> The most recent Global Warming Potentials (GWPs) are available on U.S. EPA's website at: <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

<sup>20</sup> Estimates of methane leakage from the RNG facility can be found in U.S. EPA's *Landfill Gas Energy Project Development Handbook*, available at: <https://www.epa.gov/lmop/landfill-gas-energy-project-development-handbook>

<sup>21</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. Figure 4-1: Air Dispersion Modeling Receptor Setup. p. 19.

boundary for the RNG plant should have been used for the air quality analyses and HRA conducted in the MND.

Additionally, South Coast AQMD staff found that the AERMOD modeling files did not place any worker receptors within the FRB Landfill site.<sup>22</sup> This omission is concerning as the Proposed Project only occupies a 4.24-acre portion of the 725-acre FRB Landfill, which includes the operation of two other South Coast AQMD-permitted facilities, each with a distinct facility identification number as noted in the introductory summary of this letter. While workers at these other facilities are not considered on-site workers for the purpose of defining the Proposed Project, the HRA analysis should have evaluated these off-site workers as worker receptors.

Therefore, the Lead Agency is recommended to revise the air dispersion modeling to use the fenceline boundary specific to the RNG production plant portion of the Proposed Project. Considering its 4.24-acre area and in accordance with South Coast AQMD modeling guidance for AERMOD, South Coast AQMD staff also recommends placing discrete cartesian receptors no more than 30 meters apart along the fenceline boundary of the RNG plant.<sup>23</sup> The revised air dispersion modeling should also include worker receptors at the locations of other South Coast AQMD-permitted facilities within the FRB Landfill site, calculate the cancer risks for workers at these locations, and compare the maximum calculated cancer risks to South Coast AQMD's CEQA significance threshold of 10 in one million to determine the level of significance in a revised CEQA document or Final MND.

Sources Modeled in the HRA: During the operational phase, stationary sources of air emissions for the Proposed Project will include: 1) combustion of pilot fuel (natural gas) and landfill tail gas in one Thermal Oxidizer Unit (TOU); 2) combustion of pilot fuel (natural gas) and off-specification product and process gases in one flare; and 3) combustion of natural gas for an emergency generator powered by a 253-horsepower natural-gas fueled internal combustion engine (ICE).<sup>24</sup> The TOU and flare are assumed to operate continuously, while the ICE is expected to operate up to 4.2 hours per day or 50 hours per year for maintenance and testing.<sup>25</sup>

In modeling of toxic air emissions for the operational phase, the stationary sources of TOU, flare, and ICE were modeled as point sources in the HRA.<sup>26</sup> According to the MND, the ICE is anticipated to operate up to 4.2 hours per day or 50 hours per year for maintenance and testing. However, the potential to emit (PTE) for the ICE permit is expected to allow operation of up to 200 hours per year, which includes 50 hours per year for maintenance and testing. In the calculations of the annual toxic air emissions for the ICE, the HRA assumed 50 hours per year of operation.<sup>27</sup> However, since CEQA requires a conservative approach which is typically expressed through conducting calculations based on the maximum potential emissions occurring during one or more worst-case operational scenarios, the HRA should be revised to reflect 200 hours per year for the ICE operation to avoid underestimating emission impacts. Additionally, cancer risks associated with emissions from on-road diesel vehicles traveling to and from the site were not evaluated which may also lead to an

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<sup>22</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 3.

<sup>23</sup> South Coast AQMD Modeling Guidance for AERMOD, Receptor Grid. Accessed here: <https://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance>

<sup>24</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 3.

<sup>25</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 35.

<sup>26</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 21.

<sup>27</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study. p. 35.

underestimation of the total impacts.<sup>28</sup> Therefore, South Coast AQMD staff recommends that the Lead Agency rerun the modeling analysis to account for these discrepancies and revise the HRA for inclusion in the revised CEQA document or Final MND.

### *Project Scope and Cumulative Impact*

Section 2.2.1 *General Description* of the MND states, “SoCalGas will develop a POR facility which will receive RNG from the plant, odorize, compress, and insert the RNG into its pipeline. A 250-gallon odorant tank will be installed in the POR facility.” Figure 2-5, *RNG Process Design Flow*, and Figure 2-6, *Project Site Plan*, both indicate that the SoCalGas POR facility is within the boundary of the Proposed Project but the SoCalGas POR facility and its associated equipment do not appear to be analyzed in the MND. To avoid concerns about piecemealing under CEQA, South Coast AQMD staff recommends that the MND be revised to also include an analysis of the impacts from the SoCalGas POR facility. If the Lead Agency determines that the SoCalGas POR facility is not part of the Proposed Project, its impacts should be evaluated and discussed as cumulative impacts under Section 3.4.21, *Mandatory Findings of Significance*, in accordance with CEQA Guidelines Appendix G – Environmental Checklist Form, Section XVIII - *Mandatory Findings of Significance (b)*.

### *South Coast AQMD Air Permits and Role as a Responsible Agency*

Since implementation of the Proposed Project would require South Coast AQMD air permits for new stationary and portable sources, including but not limited to the TOU, flare, and ICE previously mentioned in this letter, South Coast AQMD's role would change from a Commenting Agency to a Responsible Agency under CEQA.<sup>29</sup> In addition, when South Coast AQMD is identified as a Responsible Agency, the Lead Agency is required to consult with South Coast AQMD as set forth in CEQA Guidelines Sections 15086. Furthermore, CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of evaluating the applications for air permits. For these reasons, the Final MND or other type of CEQA document should include a discussion about any new stationary and portable equipment requiring South Coast AQMD air permits and identify South Coast AQMD as a Responsible Agency for the Proposed Project.

The Final MND or other type of CEQA document should also include calculations and analyses for construction and operation emissions for the new stationary and portable sources, as this information will also be relied upon as the basis for the permit conditions and emission limits for the air permit(s). Please contact South Coast AQMD's Engineering and Permitting staff at (909) 396-3385 for questions regarding what types of equipment would require air permits. For more general information on permits, please visit South Coast AQMD's webpage at: <http://www.aqmd.gov/home/permits>.

### Conclusion

South Coast AQMD staff recommends the Lead Agency revise the CEQA analysis to address the aforementioned comments and provide the necessary evidence to sufficiently support the

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<sup>28</sup> MND. Appendix B: Air Quality, GHG, HRA, and LST Study: Appendix A- CalEEMod Outputs. p. 86/98.

<sup>29</sup> MND. 2.0 Project Information. p. 2-14.

conclusions reached. If the requested information and analysis are not included in the Final MND or other type of CEQA document, the Lead Agency should provide the reasons for not doing so. Pursuant to Public Resources Code Section 21092.5(b) and CEQA Guidelines Section 15074, prior to approving the Proposed Project, the Lead Agency shall consider the MND for adoption together with any comments received during the public review process and notify each public agency when any public hearings are scheduled. Please provide South Coast AQMD with written responses to all comments contained herein prior to the adoption of the Final MND. When responding to issues raised in the comments, please provide detailed reasons supported by substantial evidence in the record to explain why specific comments and suggestions are not accepted. In addition, if the Lead Agency proceeds with adopting the Final MND, please provide South Coast AQMD with a notice of any scheduled public hearing(s).

Thank you for the opportunity to review the MND and provide comments. South Coast AQMD staff is available to work with the Lead Agency to address any questions that may arise from this comment letter. Please contact me at [swang1@aqmd.gov](mailto:swang1@aqmd.gov) or Evelyn Aguilar, Air Quality Specialist, at [eaguilar@aqmd.gov](mailto:eaguilar@aqmd.gov) should you have any questions.

Sincerely,

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MK:ND:BR:SW:EA  
ORC241016-15  
Control Number