

APPENDIX C-27
NEWHALL RANCH GREENHOUSE GAS REDUCTION PLAN
REVISED APPENDIX F OF DRAFT AEA APPENDIX 1

JUNE 1, 2017

Appendix 6

**Newhall Ranch
Greenhouse Gas Reduction Plan,
Revised Appendix F of Draft AEA
Appendix 1, June 1, 2017**

Newhall Ranch Greenhouse Gas Reduction Plan

I. OVERVIEW AND SUMMARY

The purpose of this Greenhouse Gas (“GHG”) Reduction Plan is to clarify and further specify performance standards governing the implementation of Mitigation Measure (“MM”) 2-10 (Construction and Vegetation Change Emissions) and MM 2-13 (Operational Emissions), as identified in the California Department of Fish and Wildlife Additional Environmental Analysis (“AEA”) and County of Los Angeles Village-Level California Environmental Quality Act (“CEQA”) Documentation.

This GHG Reduction Plan is organized as follows:

- ▲ Section II defines terms used throughout this GHG Reduction Plan.
- ▲ Section III summarizes the process by which the project applicant will seek to undertake or fund Direct Reduction Activities.
- ▲ Section IV describes certain Direct Reduction Activities that the project applicant is evaluating as of the publication date of this GHG Reduction Plan and may undertake in connection with the implementation of this GHG Reduction Plan.¹
- ▲ Section V describes the phases of project development (i.e., construction and vegetation change; operational) for which this GHG Reduction Plan is designed to mitigate emissions.
- ▲ Sections VI and VII outline the Compliance Options available to the project applicant when implementing this GHG Reduction Plan.
- ▲ Section VIII describes the compliance demonstration process for this GHG Reduction Plan.
- ▲ Section IX sets forth performance standards applicable to GHG Mitigation Credits and Carbon Offsets used for the implementation of this GHG Reduction Plan.
- ▲ Section X establishes the locational performance standards applicable to this GHG Reduction Plan.

The mitigation measures (MM 2-1 through MM 2-13) applicable to the project, including those requiring the implementation of this GHG Reduction Plan (MM 2-10 and MM 2-13), shall reduce the Overall Project Emissions to net zero GHG emissions, as identified in the AEA and Village-Level CEQA Documentation. The reduction of Overall Project Emissions will be achieved through the implementation of various project site-specific measures as set forth in MM 2-1 through MM 2-9, as well as the implementation of certain local off-site measures set forth in MM 2-11 and MM 2-12. In addition, the project shall mitigate construction and vegetation change emissions through implementation of MM 2-10 and mitigate the operational emissions not already mitigated by the other Mitigation Measures through the implementation of MM 2-13 at the local/regional level and within the State of California, as well as within the United States and internationally.

¹ At this time, the project applicant has not selected any specific Direct Reduction Activities for implementation pursuant to this GHG Reduction Plan, except for a clean cook stove installation pilot program in Zambia in 2017.

Consistent with the policy of the State of California, the majority of the GHG reductions (MM 2-1 through MM 2-13) and the substantial majority of the investment associated with such GHG reductions will occur within Los Angeles County and the State of California.

Because the project will facilitate the phased development of a planned community to be built over many years, and because the regulatory and technological frameworks for GHG emissions are rapidly evolving and are expected to continue to do so over the ensuing years during the development of the project, minor modifications to this GHG Reduction Plan may be made by the project applicant upon receipt of a written consistency determination from the Los Angeles County Planning Director provided that such modifications are environmentally equivalent to this GHG Reduction Plan and MM 2-10 and MM 2-13.

The Planning Director shall determine the adequacy of any minor modifications by evaluating whether the project applicant's proposed minor modifications result in equivalent or more beneficial GHG reductions and environmental effects, as compared to the original provisions of this GHG Reduction Plan. The minor modifications cannot result in the creation of new or substantially more severe significant environmental effects and must be consistent with the GHG Reduction Plan and MM 2-10 and MM 2-13. The Planning Director shall make a consistency determination that the proposed minor modifications are environmentally equivalent, based on supporting materials submitted by the project applicant.

II. DEFINED TERMS

The following definitions apply to this GHG Reduction Plan.

"ACR" shall mean the American Carbon Registry.

"AEA" shall mean the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan Additional Environmental Analysis (SCH No. 2000011025).

"Approved Registry" shall mean any of the following: (i) the Climate Action Reserve, the American Carbon Registry and the Verified Carbon Standard; (ii) any entity approved at any time by CARB to act as an "offset project registry" under the state's cap-and-trade program; and if no Approved Registry is in existence as identified by the preceding options (i) or (ii), then (iii) any other entity that issues Carbon Offsets satisfying the performance standards set forth in Section IX.B.

"CAR" shall mean the Climate Action Reserve.

"CARB" shall mean the California Air Resources Board.

"Carbon Offset" shall mean an instrument issued by an Approved Registry that shall satisfy the performance standards set forth in Section IX.B and represent the past reduction or sequestration of one metric tonne of carbon dioxide equivalent achieved by a Direct Reduction Activity or any other GHG emission reduction activity that is not otherwise required (CEQA Guidelines § 15126.4(c)(3)).

"Compliance Option" shall mean any of the two compliance options (Compliance Options No. VI-1 and VI-2) defined in Section VI of this GHG Reduction Plan or the three compliance options (Compliance Options No. VII-1 through VII-3) defined in Section VII of this GHG Reduction Plan.

"Direct Reduction Activity" shall mean the direct undertaking or funding by the project applicant of an activity or activities that reduce or sequester GHG emissions at a location other than the project site, in compliance with the performance standards set forth in Section IX.A.

"GHG" shall mean greenhouse gas.

“GHG Mitigation Credit” shall mean an instrument issued by an Approved Registry that satisfies the performance standards set forth in Section IX.A and shall represent the estimated reduction or sequestration of one metric tonne of carbon dioxide equivalent that will be achieved by a Direct Reduction Activity that is not otherwise required (CEQA Guidelines § 15126.4(c)(3)).

“GHG Reduction Plan” shall mean this GHG Reduction Plan.

“GHG Residential Ratio” and **“GHG Commercial Ratio”** shall mean the GHG emissions ratios expressed in MTCO₂e established in the applicable Village-Level CEQA Documentation for a specific Village-Level project to ensure that the related GHG emissions are reduced to net zero as identified in the AEA. For example, the GHG Residential Ratio would be 108.89 MTCO₂e per residential unit and the GHG Commercial Ratio would be 506.86 MTCO₂e per thousand square feet of commercial development if the maximum allowable development facilitated by the project occurs.

“Incremental Construction GHG Emissions” shall mean the GHG emissions associated with a specific grading permit application for the Village-Level Project or a portion of the Village-Level Project relating to construction and vegetation change GHG emissions, as calculated in accordance with the applicable Village-Level CEQA Documentation.

“Incremental Operational GHG Emissions” shall mean the GHG emissions associated with a specific residential or commercial building permit application for the Village-Level Project or a portion of the Village-Level Project relating to operational emissions (i.e., non-construction and vegetation change emissions), as calculated based on the applicable GHG Residential Ratio or GHG Commercial Ratio set forth in the applicable Village-Level CEQA Documentation.

“ISO” shall mean the International Organization for Standardization.

“MM” shall mean Mitigation Measure, as identified in the AEA and/or Village-Level CEQA Documentation.

“MTCO₂e” shall mean a metric tonne of carbon dioxide equivalent.

“Overall Project Emissions” shall mean “Total Annual Emissions” that are “Unmitigated” from the project as set forth in Table 2.3-3 of the AEA.

“project” shall mean the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan.

“project applicant” shall mean The Newhall Land and Farming Company, LLC or its designee.

“TSF” shall mean thousand square feet.

“VCS” shall mean the Verified Carbon Standard.

“Village-Level CEQA Documentation” shall mean the environmental analysis completed for a Village-Level Project within the project area as required by the California Environmental Quality Act.

“Village-Level Project” shall mean any village-level project within the project area, including the Mission Village and Landmark Village projects.

“WRI/WBCSD” shall mean the World Resources Institute/World Business Council for Sustainable Development.

III. DIRECT REDUCTION ACTIVITIES

A. Description

Under CEQA Guidelines Section 15126.4, subdivisions (c)(3) and (c)(4), respectively, a project's GHG emissions can be reduced by "[o]ff-site measures, including offsets that are not otherwise required" and "[m]easures that sequester greenhouse gases."

Therefore, the project applicant will work directly with third parties, including not-for-profits, non-governmental organizations, and others, to achieve GHG emissions reduction or sequestration through Direct Reduction Activities. All Direct Reduction Activities will be undertaken for the specific purpose of reducing the Overall Project Emissions, and all Direct Reduction Activities will be confirmed or verified by an independent, qualified third-party using methodologies approved by Approved Registries.

While the focus of the GHG Reduction Plan is on Direct Reduction Activities, if it is necessary to fully offset the Overall Project Emissions, the project applicant may obtain and retire Carbon Offsets that have been issued by an Approved Registry, as provided for in Sections VI and VII, below.

B. Performance Standards

All GHG emission reductions used for compliance with this GHG Reduction Plan will comply with performance standards established in this GHG Reduction Plan. The performance standards are set forth in Section IX and are based on established performance standards in established carbon offset programs and climate change regulations, including California's cap-and-trade program for GHG emissions. The performance standards include both environmental integrity criteria and procedural review requirements, and adherence to the performance standards will ensure that the implementation of the GHG Reduction Plan will satisfy CEQA.

C. Approved Registries

The GHG Reduction Plan is tiered off of established carbon offset programs implemented by Approved Registries. Three Approved Registries currently recognized by the State of California are:

Climate Action Reserve: The California Legislature established CAR in 2001 to encourage actions to reduce GHG emissions. CAR began as the California Climate Registry and developed protocols to track GHG emissions and reductions, and have those emissions verified and publicly reported. The California Climate Registry was renamed as CAR and expanded in 2008, and now plays a leading role in the carbon market. CAR has developed over 15 separate protocols for quantification and verification of GHG emissions reductions, and issued over 60 million carbon offset credits, known as "Climate Reserve Tonnes" or "CRTs." CAR is based in Los Angeles and has been approved by CARB as an official offset registry for the state's cap-and-trade program.

American Carbon Registry: ACR was founded in 1996 as a non-profit enterprise of Winrock International, a non-profit organization. ACR is a CARB-approved offset registry for the state's cap-and-trade program and has also developed its own carbon offset methodologies, such as methodologies for degraded wetlands and for avoided conversion of grasslands to crop production.

Verified Carbon Standard: VCS was founded in 2005 by the Climate Group, the International Emissions Trading Association and the World Economic Forum. Project developers are able to list GHG reduction activities on the VCS registry using a variety of protocols, including CAR protocols. VCS is a CARB-approved

offset registry for the state's cap-and-trade program and has also developed its own carbon offset quantification methodologies.

IV. OVERVIEW OF POTENTIAL DIRECT REDUCTION ACTIVITIES

The following Direct Reduction Activities are prototypical of the types of Direct Reduction Activities that the project applicant has identified on a preliminary basis for inclusion in the GHG Reduction Plan. The following Direct Reduction Activities are illustrative only and the exact portfolio composition of the Direct Reduction Activities may differ over time as new types may be added and certain opportunities identified below may not be realized.²

A. Forest Conservation in California and the United States

Working with a leading developer of forest carbon offset, the project applicant is exploring opportunities involving the conservation of forest land and forest stocks for the purpose of sequestering GHG emissions. The developer would identify suitable forest land and then assist the project applicant in its management of this land to maximize the forest and carbon stocks through afforestation, avoided conversion and improved management techniques. Under a typical contractual structure, the project applicant would purchase forest land from a forest owner to conserve or enhance forest stocks, but the project applicant might also pay the developer or another third party to sequester GHG emissions at a forest rather than taking ownership of the forest itself. In both instances, the developer would subsequently assist the project applicant in managing the forest land or assisting the forest owner so as to increase the forest and carbon stocks.

Loss of forests or unsustainable management of forests in California and the rest of the United States releases carbon emissions into the atmosphere that would otherwise have been sequestered in trees, soils and understory plants in forests, which naturally absorb carbon dioxide from the atmosphere and store the gas as carbon.

Through sustainable management and protection, avoided conversion of forests to other uses, and reforestation, forests can increase their carbon storage. The California Forestry Association recognizes that “healthy forests provide the state with clean water and air [and] thriving wildlife habitats.”³ The U.S. Forest Service recognizes the importance of forest restoration and protection through its “Integrated Resource Restoration” program, which aims to “re-establish a balance of nature needed for air, water, plants and animals to thrive” in the nation's forests through direct forest land management⁴. As evidenced by Governor Brown's central role in the creation of the Governors' Climate and Forests Task Force, a multi-national collaboration, which synchronizes efforts across jurisdictions to develop policies and programs that provide pathways to forest-maintaining rural development, California is making considerable efforts to broker the international accord to fight deforestation and resulting impacts on climate change.

The project applicant is actively considering Direct Reduction Activities involving the forestry sector where the project applicant could help conserve forest land or forest stocks for the purpose of sequestering GHG emissions⁵. The project applicant may pursue opportunities that involve three types of forestry sequestration activities:

² At this time, the project applicant has not selected any specific Direct Reduction Activities for implementation pursuant to this GHG Reduction Plan except for installing clean cook stoves in Zambia in 2017.

³ California Forestry Association, “About Us,” available at <http://calforests.org/about/>, accessed: March 2017.

⁴ U.S. Forest Service, “Forests and Grasslands,” available at <http://www.fs.fed.us/managing-land/national-forests-grasslands>, accessed: March 2017.

⁵ See, e.g., CAR, *Forest Project Protocol Version 3.3* (2012) (providing requirements and guidance for quantifying the net climate benefits of activities that sequester carbon on forestland); CARB, *Compliance Offset Protocol: U.S. Forest Projects* (2015) (the purpose of the protocol “is to quantify [GHG] emission reductions and [GHG] removal enhancements associated with the sequestration of carbon achieved by increasing and/or conserving forest carbon stocks”).

- ▲ Avoided conversion of forests: this activity involves the avoided deforestation of forest land through a land purchase or, in California or elsewhere, the creation of a conservation easement or other legally binding agreement.
- ▲ Improved forestry management: this activity may include increasing rotation ages to increase the overall age of the forest, increasing the stocking of trees on understocked areas and increasing forest productivity by thinning diseased and suppressed trees.
- ▲ Reforestation: this activity involves the planting of new trees.

The applicable forestry sequestration protocols and methodologies provide strict criteria regulating the type of activities eligible to qualify as avoided conversion, improved forestry management or afforestation activities. For example, the use of non-native tree species in afforestation is restricted.

B. Clean Cook Stoves

The project applicant is installing cook stoves in Zambia by funding clean-burning cook stoves for underprivileged households. The clean cook stoves will reduce GHG emissions, as well as deliver many health-related co-benefits to their users. An expanded cook stove program is being explored by the project applicant.

More than three billion people globally depend on burning woody fuels in archaic, 3-stone fires for cooking⁶. Inefficient cook stoves are a significant contributor to GHG emissions and climate change. A single clean cook stove can save an average of two tonnes of carbon dioxide emissions per year or more.

In addition to saving an average of two tonnes of carbon dioxide emissions per year or more, a single clean cook stove can reduce household air pollution by 50% and reduce the time spent gathering resources by 75%. According to the World Health Organization, this primitive form of cooking results in over 4 million premature deaths worldwide every year⁷. More than 50% of premature deaths due to pneumonia among children under the age of 5 are caused by the particulate matter (soot) inhaled from household air pollution⁸. Other adverse health effects associated with biomass smoke exposure include stroke, chronic obstructive pulmonary disease, cardiovascular disease and lung cancer⁹. In Africa, more people die from exposure to cook stove smoke than from malaria, tuberculosis and HIV/AIDS, combined.

In addition, the need to gather high volumes of firewood also contributes significantly to deforestation and, consequently, climate change. Moreover, women and children must spend hours a day walking long distances for wood gathering or to purchase bundled wood, and are often exposed to assaults and other dangers. The time spent gathering wood deprives young children of time needed for schooling and education.

If this program is ultimately pursued, the project applicant would provide additional funding to build, distribute and maintain cook stoves. An NGO would assist with installing the stoves by providing in-person training on the manufacturing, operation and maintenance of cooking stoves. The owner and the location of each stove would be tracked and recorded in the documentation for the Direct Reduction Activity¹⁰.

⁶ World Health Organization, "Household air pollution and health: Fact sheet N° 292," (February 2016), available at: <http://www.who.int/mediacentre/factsheets/fs292/en/>, accessed: March 2017.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ See, e.g., ClimateCare, *Indicative Programme, Baseline, and Monitoring Methodology for Improved Cook-Stoves and Kitchen Regimes*, Gold Standard, available at http://www.goldstandard.org/sites/default/files/gs_methodology_cookstove.pdf, accessed: Mar. 2, 2017 ("All sales records should comprise [of] the following data . . . [l]ocation of sale . . . [and] [n]ame and telephone number[.]").

C. Methane Capture

The project applicant is exploring opportunities to reduce methane emissions from livestock in California and the United States. The project applicant would identify opportunities to fund the capture and destruction of methane emissions from livestock manure at suitable dairy farms, including in California.

Methane is the second most prevalent GHG emitted in the United States from human activities, and agriculture is the second largest source of methane emissions in the U.S. (after petroleum and natural gas systems)¹¹. California has the most dairy cows in the country and the highest aggregated dairy methane emissions¹². California also has established a goal of reducing methane emissions from dairy manure management by 40 percent in 2030 relative to 2013 levels¹³.

The project applicant would provide the funding required to build and maintain methane capture and destruction equipment using established methodologies developed by CARB and/or CAR. The project applicant also would explore opportunities for the beneficial use of the captured methane, such as for renewable electricity or biofuel production.

V. PROJECT EMISSIONS

As described in the AEA and Village-Level CEQA Documentation, there are two general sources of GHG emissions that will result from the project: (i) the construction and vegetation change emissions, which include emissions associated with grading and all horizontal (e.g., infrastructure) and vertical (buildings) construction; and (ii) the operational emissions, which include the emissions associated with the use of the project, including emissions from vehicles, electricity use, building operations and other sources, estimated over a 30-year project life.

As described in the AEA and Village-Level CEQA Documentation, in order to reduce the Overall Project Emissions to net zero, the project applicant shall mitigate the operational emissions not already mitigated by the other Mitigation Measures prior to the issuance by Los Angeles County of the (i) grading permit (to cover construction and vegetation change emissions in MM 2-10) and (ii) the building permit (to cover operational emissions in MM 2-13), as follows:

- ▲ **Construction and Vegetation Change GHG Emissions** – Prior to obtaining a grading permit from Los Angeles County for each village or a portion of a village, the project applicant shall mitigate, through the GHG Reduction Plan, the Incremental Construction GHG Emissions, as required by MM 2-10. The project applicant shall provide documentation for the Incremental Construction GHG Emissions, based on the parameters set forth in the applicable Village-Level CEQA Documentation, which will identify the GHG reduction needed to ensure the Incremental Construction GHG Emissions will be reduced to net zero as identified in the AEA.
- ▲ **Operational GHG Emissions** – Prior to obtaining residential and/or commercial building permits from Los Angeles County for each village or a portion of a village, the project applicant shall mitigate, through the GHG Reduction Plan, the Incremental Operational GHG Emissions, as required by MM 2-13. The project applicant shall provide documentation for the Incremental Operational GHG Emissions, based on the parameters (including the GHG Residential Ratio and GHG Operational Ratio) set forth in the applicable Village-Level CEQA Documentation, which will identify the GHG reduction needed to ensure the Incremental Operational GHG Emissions will be reduced to net zero as identified in the AEA.

¹¹ U.S. Environmental Protection Agency, "Overview of Greenhouse Gases: Methane Emissions," available at <https://www.epa.gov/ghgemissions/overview-greenhouse-gases#methane>, accessed: March 2017.

¹² CARB, Revised Proposed Short-Lived Climate Pollutant Reduction Strategy (November 2016) at 63.

¹³ *Id.*

By way of example, and assuming the maximum allowable development facilitated by the project occurs, the Incremental Operational GHG Emissions over the 30-year project life associated with such building permits that shall be reduced will be equal to the sum of: (1) the number of proposed residential units covered by the applicable building permit multiplied by 108.89 MTCO₂e; and (2) every TSF of proposed commercial development (including retail, light industrial, office, hotel and mixed-use buildings) covered by the applicable building permit multiplied by 506.86 MTCO₂e. As such, to obtain a building permit for 75 residential units and 40,000 square feet of commercial development, the Incremental Operational GHG Emissions requiring reduction would be: (75 units x 108.89 MTCO₂e/unit) + (40 TSF x 506.86 MTCO₂e/TSF) = 28,441 MTCO₂e.

As recognized above, the GHG Residential Ratio and GHG Commercial Ratio may vary for individual village-level development projects, as estimated in the Village-Level CEQA Documentation; in all cases, the Overall Project Emissions shall be reduced fully to net zero as identified in the AEA.

VI. COMPLIANCE OPTIONS – CONSTRUCTION AND VEGETATION CHANGE EMISSIONS

To satisfy MM 2-10 (Construction and Vegetation Change Emissions), prior to obtaining a grading permit from Los Angeles County for each village or a portion of a village, the project applicant shall mitigate the Incremental Construction GHG Emissions by relying upon one of the following two Compliance Options or a combination thereof.

Section VIII describes how the project applicant will verify completion of the Compliance Options. Section IX describes the performance standards that shall be achieved for GHG Mitigation Credits and Carbon Offsets prior to being issued and retired under such Approved Registry requirements.

Compliance Option VI-1	Undertake Direct Reduction Activities and Retire GHG Mitigation Credits
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Under Compliance Option VI-1, prior to issuance of a grading permit, the project applicant will undertake or fund certain Direct Reduction Activities that result in the issuance of GHG Mitigation Credits.

Compliance Option VI-2	Purchasing Carbon Offsets Issued by Approved Registries on the Market
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Under Compliance Option VI-2, prior to issuance of a grading permit, the project applicant will purchase and retire Carbon Offsets.

VII. COMPLIANCE OPTIONS – OPERATIONAL EMISSIONS

To satisfy MM 2-13 (Operational Emissions), prior to obtaining residential and/or commercial building permits from Los Angeles County, the project applicant shall mitigate the Incremental Operational GHG Emissions by relying upon one of the following three Compliance Options or a combination thereof.

Section VIII, below, describes how the project applicant will verify completion of the Compliance Options. Section IX below describes the performance standards that shall be achieved for GHG Mitigation Credits and Carbon Offsets prior to being issued and retired under such Approved Registry requirements.

Compliance Option No. VII-1**Undertake Direct Reduction Activities and Retire GHG Mitigation Credits**

Under Compliance Option No. VII-1, prior to obtaining a residential and/or commercial building permit, the project applicant will undertake or fund certain Direct Reduction Activities that result in the issuance of GHG Mitigation Credits.

Compliance Option No. VII-2**Undertake Direct Reduction Activities and Retire Carbon Offsets**

Under Compliance Option No. VII-2, prior to issuance of a residential and/or commercial building permit, the project applicant will undertake or fund certain Direct Reduction Activities that result in the issuance of Carbon Offsets.

Compliance Option No. VII-3**Purchasing Carbon Offsets Issued by Approved Registries on the Market**

Under Compliance Option No. VII-3, prior to issuance of a residential and/or commercial building permit, the project applicant will purchase and retire Carbon Offsets.

Consistent with MM 2-13, the project applicant may rely on Compliance Option No. VII-3, if necessary, as determined by the Los Angeles County Planning Director, if Compliance Options No. VII-1 and VII-2 are not reasonably available based on timing, availability, cost constraints or other relevant information, or to achieve compliance with the Locational Performance Standards set forth in Section X. The project applicant shall provide documentation to the Los Angeles County Planning Director that: (i) evidences the timing, availability or cost constraints that necessitate the use of Compliance Option No. VII-3; (ii) demonstrates that the timing issue, unavailability or cost constraints could not have been reasonably avoided; and (iii) demonstrates that the use of Compliance Option No. VII-3 is otherwise consistent with the requirements of this GHG Reduction Plan. Within 30 days of receipt of such documentation, the Planning Director shall make a determination. The Planning Director shall not impose additional conditions or mitigation measures on the project. If the Planning Director does not determine that reliance on Compliance Option No. VII-3 is necessary, the Planning Director shall inform the project applicant in reasonable detail of the basis of the Planning Director's finding. The project applicant may submit revised documentation to the Planning Director following such a determination by the Planning Director.

VIII. DEMONSTRATING COMPLIANCE WITH MM 2-10 AND MM 2-13

The project applicant shall demonstrate compliance with MM 2-10 (Construction and Vegetation Change Emissions) or MM 2-13 (Operational Emissions) in the manner described below.

Confirmation of Compliance Options No. VI-1 and VII-1

To demonstrate compliance with Compliance Options No. VI-1 and VII-1, the project applicant shall provide the following documentary evidence to Los Angeles County:

An attestation from an Approved Registry that the project applicant has retired a sufficient quantity of GHG Mitigation Credits to mitigate the Incremental Construction GHG Emissions or Incremental Operational GHG Emissions, as applicable, and that such GHG Mitigation Credits and the associated Direct Reduction Activities meet the performance standards set forth in Section IX of this GHG Reduction Plan.

Confirmation of Compliance Option No. VII-2	<p>To demonstrate compliance with Compliance Option No. VII-2, the project applicant shall provide the following documentary evidence to Los Angeles County:</p> <p>An attestation from an Approved Registry that the project applicant has retired a sufficient quantity of Carbon Offsets to mitigate the Incremental Operational GHG Emissions and that such Carbon Offsets and the associated Direct Reduction Activities meet the performance standards set forth in Section IX of this GHG Reduction Plan.</p>
Confirmation of Compliance Options No. VI-2 and VII-3	<p>To demonstrate compliance with Compliance Options No. VI-2 and VII-3, the project applicant shall provide the following documentary evidence to Los Angeles County:</p> <p>An attestation from an Approved Registry that the project applicant has retired a sufficient quantity of Carbon Offsets to mitigate the Incremental Construction GHG Emissions or Incremental Operational GHG Emissions, as applicable, and that such Carbon Offsets meet the performance standards set forth in Section IX of this GHG Reduction Plan.</p>

IX. PERFORMANCE STANDARDS FOR GHG MITIGATION CREDITS AND CARBON OFFSETS

A. GHG Mitigation Credits


GHG Mitigation Credits will be used to demonstrate compliance with MM 2-10 or MM 2-13 via Compliance Options No. VI-1 or VII-1, respectively. As further described below, each GHG Mitigation Credit shall be issued by an Approved Registry upon confirmation by an independent, accredited third party that the Direct Reduction Activities have been implemented, meet the Approved Registry's rules for issuing GHG Mitigation Credits, and are in accordance with the quantification methodology adopted by that Approved Registry for the applicable Direct Reduction Activity.

All GHG Mitigation Credits used by the project applicant to comply with MM 2-10 or MM 2-13 shall meet the performance standards identified in this Section.

1. ACCOUNTING, QUANTIFICATION AND REPORTING PERFORMANCE STANDARDS

Approved Registries, and the independent third parties acting under the oversight of Approved Registries, shall account for and quantify emission reductions and sequestration achieved by Direct Reduction Activities by drawing upon defined standards and incorporating principles of GHG emissions reduction accounting, including those set forth in the ISO 14064 and the WRI/WBCSD Greenhouse Gas Protocol for Project Accounting.¹⁴

Such standards, consistent with the ISO and WRI/WBCSD, are generally as follows¹⁵:

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Transparency and Monitoring. Approved Registries and independent third parties shall use clear information sufficient for reviewers to assess credibility of GHG emission reductions. Upon request by Los Angeles County, any governmental entity or any stakeholder, the Approved Registry shall provide the following information within a reasonable time period: the Direct Reduction Activities listed by the project applicant, the applicable quantification protocol, all third-party confirmation reports issued in connection

¹⁴ ISO, ISO 14064, Part 2: "Specification with guidance at the project level for quantification, monitoring, and reporting of greenhouse gas emission reductions or removal enhancements" (2005); WRI/WBCSD, "The GHG Protocol for Project Accounting" (2005).

¹⁵ See, e.g., WRI/WBCSD, "The GHG Protocol for Project Accounting" (2005) at 43-44.

with a Direct Reduction Activity and information about the issuance and retirement of GHG Mitigation Credits. Such information shall be sufficient to monitor compliance by the project applicant with this GHG Reduction Plan¹⁶.

- ▲ **Relevance.** Approved Registries and independent third parties shall use data, methods, criteria and assumptions that are appropriate for the applicable Direct Reduction Activity.
- ▲ **Completeness.** Approved Registries and independent third parties shall consider all relevant information that may affect the accounting and quantification of GHG emission reductions.
- ▲ **Consistency.** Approved Registries and independent third parties shall use data, methods, criteria and assumptions that are applied in the same manner across different Direct Reduction Activities to allow meaningful and valid comparisons.
- ▲ **Accuracy.** Approved Registries and independent third parties shall reduce uncertainty as much as practicable, erring on the side of conservativeness.
- ▲ **Conservativeness.** Approved Registries and independent third parties shall use conservative assumptions, values and procedures to ensure that GHG reductions or sequestration are not over-estimated, especially when uncertainty is high.

The Approved Registries shall comply with these performance standards in connection with the issuance of GHG Mitigation Credits.

2. DIRECT REDUCTION ACTIVITY ELIGIBILITY PERFORMANCE STANDARDS

To ensure environmental integrity, a Direct Reduction Activity resulting in GHG Mitigation Credits shall meet the following eligibility standards:

- ▲ **Additionality.** In compliance with CEQA Guidelines Section 15126.4(c)(3), the Direct Reduction Activities shall not otherwise be required, as provided for in A and B below. For purposes of this GHG Reduction Plan, the Direct Reduction Activities shall meet the following two performance standards¹⁷:
 - A. **Legal Requirement Test** – The Direct Reduction Activity shall not be required for GHG reduction by applicable law (i.e., statute, ordinance or regulation) in effect at the time of the initiation of such Direct Reduction Activity; and
 - B. **Performance Test** – The Direct Reduction Activity shall reduce GHG emissions below the applicable common industry practice for GHG reductions as in effect at the time of the initiation of such Direct Reduction Activity. The performance test for a particular Direct Reduction Activity shall be set in a protocol by an Approved Registry through analysis of standard practices and technology deployment in the applicable industry sector.
- ▲ **No Double Counting.** The Direct Reduction Activity shall not be concurrently listed, registered or earning credits under any other GHG reduction scheme.
- ▲ **Enforceable.** The project applicant shall implement the Direct Reduction Activity and retire associated GHG Mitigation Credits before using the GHG Mitigation Credits to obtain a grading permit or building permit from Los Angeles County in conformance with MM 2-10 and MM 2-13 and the Mitigation

¹⁶ Accreditation for independent third party reviewers will be consistent with existing recognized accreditation standards, as applied by an Approved Registry.

¹⁷ This standard is functionally similar to the “additionality” test applied to Carbon Offsets; CEQA does not directly incorporate the AB 32 cap-and-trade requirements since CEQA otherwise provides standards for ensuring the environmental integrity of mitigation measures. See California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97 (December 2009) at 50.

Monitoring and Reporting Program, as applicable, for an incremental level of development covered by the project.

3. PROCEDURAL PERFORMANCE STANDARDS

In order to ensure that GHG Mitigation Credits satisfy the Accounting, Quantification and Reporting Performance Standards and Eligibility Performance Standards set forth in 1 and 2 above, any Approved Registry approving GHG Mitigation Credits shall implement credit processing standards substantially similar or equivalent to those set forth below:

- ▲ **Registration, Submittal and Listing.** The project applicant shall be required to set up an account with the Approved Registry, list the proposed Direct Reduction Activity with the Approved Registry and provide a proposed quantification methodology to be used for quantification of emission reductions from the Direct Reduction Activity. During this step, the Approved Registry shall conduct a technical review of the proposed Direct Reduction Activity and quantification methodology to ensure that it satisfies the requirements of this GHG Reduction Plan.
- ▲ **Approved Registry Accepts Methodology for Quantifying GHG Emissions Reductions from Direct Reduction Activity.** The project applicant's proposed quantification methodology shall contain a detailed quantification methodology for both baseline and Direct Reduction Activity emissions in order to calculate the estimated emission reductions associated with the Direct Reduction Activity. The quantification methodology shall describe how the proposed approach is suitably conservative to estimate emission reductions. As a result, the methodology shall be conservative in terms of estimating total GHG reductions achieved. The Approved Registry shall review the proposed quantification methodology and related documentation. If necessary, the Approved Registry shall engage appropriate third party experts to assist in reviewing the methodology. The Approved Registry will approve the methodology only after it has determined that the methodology is statistically and environmentally sound and in compliance with this GHG Reduction Plan.
- ▲ **Direct Reduction Activity Implementation.** The project applicant shall implement the Direct Reduction Activity.
- ▲ **Independent, Qualified Third-Party Confirmation of Reduction or Sequestration.** Once the Direct Reduction Activity has been implemented, the Approved Registry will require the project applicant to retain an independent, accredited¹⁸, third-party to confirm that the Direct Reduction Activity has been implemented and that the emission reductions have been quantified based on the approved methodology. The confirmation will take the form of a documentation review and a site visit assessment to confirm the implementation of the Direct Reduction Activity.
- ▲ **Issuance of GHG Mitigation Credits.** The Approved Registry shall review the third- party evaluation and data on implementation of the Direct Reduction Activity. If such evaluation and data complies with and confirms that the Direct Reduction Activity complies with this GHG Reduction Plan and the approved methodology, the Approved Registry shall issue a specific quantity of GHG Mitigation Credits into the project applicant's account. Each GHG Mitigation Credit shall be given a unique serial or tracking number to ensure there is no duplication or double-counting.
- ▲ **Retirement of GHG Mitigation Credits.** Upon request by the project applicant, the Approved Registry shall retire a specific quantity of GHG Mitigation Credits from the account of the project applicant. The Approved Registry shall provide documentation of such retirement in a form that can be provided by the project applicant to Los Angeles County so that the GHG Mitigation Credits can be used in connection with MM 2-10 and MM 2-13, including an attestation from the Approved Registry that the subject protocol used to implement the Direct Reduction Activity meets the performance standards identified in this Section IX. Once a GHG Mitigation Credit has been retired, the retirement is permanent and the GHG

¹⁸ Accreditation for independent third party reviewers will rely on existing recognized accreditation standards: ISO 14065 and ISO 14064-3.

Mitigation Credit cannot be further used in any manner. Los Angeles County shall be authorized to confirm the retirement of GHG Mitigation Credits with the applicable Approved Registry.

4. EXAMPLE GHG MITIGATION CREDIT PROGRAM

As an example of how the project applicant would receive GHG Mitigation Credits by installing clean cook stoves (as described in Section IV.B above) as a Direct Reduction Activity, the project applicant has initiated funding a pilot program in Zambia for the installation of clean cook stoves.

The subject pilot program provides for the construction of 5,000 clean cook stoves in Africa. The quantification methodology approved by the Approved Registry will estimate the time period that each stove will remain operational in the field and the annual quantity of GHG emission reductions that will result from the installation of the stove, based on evidence from similarly situated past installations and other factors. An independent third party will confirm the installation of the stoves in villages in Africa. Upon receipt of the technical report from the third party, the Approved Registry will review the documentation and determine its compliance with the approved quantification methodology. If confirmed by the Approved Registry, the Approved Registry will confirm the issuance of the GHG Mitigation Credit. For example, if the quantification methodology estimates that the stoves will remain operational for seven years and will result in 2 MTCO₂e per year, then the project applicant will receive 5,000 x 2 x 7 GHG Mitigation Credits (70,000 GHG Mitigation Credits) upon compliance with the Approved Registry requirements for issuance.

B. Carbon Offsets

To the extent that Compliance Options No. VI-2, VII-2, or VII-3 are utilized, to ensure the environmental integrity and transparency of the GHG Reduction Plan, the project applicant will be required to comply with the performance standards identified in this Section.

1. ACCOUNTING, QUANTIFICATION AND MONITORING PERFORMANCE STANDARDS

Carbon Offsets will be subject to the same Accounting, Quantification and Reporting Performance Standards as GHG Mitigation Credits, as set forth above in Section IX.A.1 above.

For the purposes of this GHG Reduction Plan, it has been determined that the existing program- level accounting and quantification standards adopted by the CAR, VCS, and ACR comply with these performance standards. These Approved Registries have incorporated the ISO Standards discussed above and/or the WRI/WBCSD Greenhouse Gas Protocol for Project Accounting into their existing carbon offset issuance programs¹⁹.

2. ELIGIBILITY PERFORMANCE STANDARDS

All Carbon Offsets used by the project applicant to comply with Compliance Options No. VI-2, VII-2, or VII-3 shall represent the past reduction or sequestration of GHG emissions (measured in MTCO₂e) achieved by a Direct Reduction Activity or any other GHG emission reduction activity that is not otherwise required (CEQA Guidelines § 15126.4(c)(3)). In addition, Carbon Offsets shall be real, additional, quantifiable, permanent, verifiable and enforceable²⁰.

For the purposes of this GHG Reduction Plan, it has been determined that the existing program- level environmental integrity standards adopted by the CAR, VCS, and ACR comply with these performance standards.

¹⁹ See, e.g., Climate Action Reserve, *Program Manual* (2015) at 4-5; American Carbon Registry, "Carbon Accounting," available at <http://americancarbonregistry.org/carbon-accounting/carbon-accounting>, accessed: Mar. 1, 2017; Verified Carbon Standard, *VCS Program Guide version 3.6* (2016) at 8.

²⁰ Cal. Health & Safety Code Section 38562(d)(1).

3. PROCEDURAL PERFORMANCE STANDARDS

In order to ensure that Carbon Offsets satisfy the Accounting, Quantification and Reporting Performance Standards and Eligibility Performance Standards set forth above, the rules and protocols of an Approved Registry that issues Carbon Offsets shall require that a Carbon Offset program follows procedural steps substantially similar or equivalent to the following to offset GHG emissions in order to generate Carbon Offsets that meet the requirements of this GHG Reduction Plan:

- ▲ **Listing or Registration.** The project proponent shall apply to list or register the proposed GHG emission reduction program with the Approved Registry, and the Approved Registry shall review the application and accept it only if it complies with the applicable Approved Registry requirements.
- ▲ **Independent, Qualified Third-Party Verification of Reduction or Sequestration.** Once a GHG emission reduction program has begun, the Approved Registry shall require the proponent to retain an independent, qualified third party to verify the reduction or sequestration achieved by the program. Each Approved Registry shall adopt stringent requirements applicable to the accreditation of third parties and only such third parties shall be qualified to verify and audit GHG emission reductions under the applicable Approved Registry rules. This process will typically take place on an annual basis, depending on the specific type of program. Approved Registry rules and protocols shall require “boots on the ground” audits, except that in certain instances documentation reviews may be sufficient, depending on the specific type of program.
- ▲ **Issuance of Carbon Offsets.** Approved Registry rules and protocols shall require the proponent to apply for issuance and to provide the verification report prepared by the independent, qualified third-party. The Approved Registry shall review a verification report and, to the extent that the Approved Registry finds that the report complies with the applicable Approved Registry requirements, the Approved Registry shall issue the Carbon Offsets to the account of the recipient.
- ▲ **Carbon Offset Retirement.** Each Approved Registry shall adopt rules and procedures governing the retirement or cancellation of Carbon Offsets. These rules or procedures involve the transfer of the Carbon Offset serial numbers from an Approved Registry account and will ensure that once a Carbon Offset has been retired, the retirement is permanent and the Carbon Offset cannot be further used in any manner.

For the purposes of this GHG Reduction Plan, it has been determined that the existing program- level procedural standards adopted by the CAR, VCS, and ACR comply with these performance standards.

X. LOCATIONAL PERFORMANCE STANDARDS

This Section X discusses the location of the measures, activities, and projects that the project applicant will implement or undertake to reduce the Overall Project Emissions to net zero. Section X.A sets forth the Locational Performance Standards. Section X.B establishes a mechanism that requires the project applicant to demonstrate compliance with the Locational Performance Standards.

A. Locational Performance Standards

The AEA demonstrates that implementation of Mitigation Measures 2-1 through 2-13 will reduce the Overall Project Emissions to net zero. As shown in Table 2.3-3 of the AEA, the project’s Overall Project Emissions are estimated to be 526,103 MTCO₂e/year. As shown in Table 2.3-4 of the AEA, Mitigation Measures 2-1 through 2-9, 2-11 and 2-12 (together, the “Local Measures”) reduce the Overall Project Emissions by 53%, or 281,271 MTCO₂e/year. The remaining 244,832 MTCO₂e/year of GHG reductions (the remaining 47%) are achieved by Mitigation Measures 2-10 and 2-13, which are governed by this GHG Reduction Plan.

The project applicant shall implement this GHG Reduction Plan so that, in the aggregate and taking into account all onsite and offsite reductions of the Overall Project Emissions achieved by Mitigation Measures 2-1 through 2-13, along with the additional electric vehicle charging stations identified in the Final AEA (“Additional EV Charging Stations”), the project shall meet, at full buildout, the Locational Performance Standards set forth below.

The project applicant shall be deemed to achieve 53% of the Overall Project Emissions reduction by implementing the Local Measures²¹ and shall be deemed to achieve the remaining 47% of the Overall Project Emissions reduction by implementing Mitigation Measures 2-10 and 2-13 per this GHG Reduction Plan. As stated above, taking into account the combination of all onsite and offsite reductions of the Overall Project Emissions achieved by Mitigation Measures 2-1 through 2-13, along with the Additional EV Charging Stations, the project, at full buildout, shall meet the following Location Performance Standards:

- ▲ **California Locational Performance Standard** – No less than 68% of the Overall Project Emissions reductions shall be achieved within the State of California through a combination of the Local Measures and implementation of Mitigation Measures 2-10, 2-13 and the Additional EV Charging Stations²².
- ▲ **United States Locational Performance Standard** – No less than 80% of the Overall Project Emissions reductions shall be achieved within the United States through a combination of the Local Measures and implementation of Mitigation Measures 2-10, 2-13 and the Additional EV Charging Stations.
- ▲ **International Locational Performance Standard** – No more than 20% of the Overall Project Emissions reductions shall be achieved outside of the United States.

The Locational Performance Standards will apply at the project level, not to an individual Village-Level Project²³. Compliance with the Locational Performance Standards shall be determined and enforced only as described in Section X.B.

Recognizing the International Locational Performance Standard as a point of emphasis for CDFW as lead agency, the project applicant will identify and implement comparable emissions reduction opportunities in California and the United States to reduce the use of international reductions below the 20% of the Overall Project Emissions reductions allowed by the International Locational Performance Standard, if such opportunities are reasonable after accounting for cost, availability, timing, and other relevant information. This determination shall be made by the project applicant, provided the reduction activities otherwise comply with the requirements of this GHG Reduction Plan.

B. Enforcement

Compliance with the Locational Performance Standards shall be determined and enforced only as described in Sections X.B.1 and X.B.2, below.

The project applicant shall provide GHG Mitigation Credits and/or Carbon Offsets to the Department of Regional Planning as provided by Mitigation Measures 2-10 and 2-13. (See Section VIII of the GHG Reduction Plan). The project applicant is not required to demonstrate compliance with the Locational Performance Standards to obtain grading or building permits, except as specifically stated below.

²¹ Based on the analysis presented in the AEA, implementation of the Local Measures achieves 53% of the Overall Project Emissions reductions for the Project. (See Draft AEA, Table 2-4). Although individual Village-Level projects may achieve greater than or less than a 53% reduction from the Local Measures, the AEA demonstrates that implementing the Local Measures achieves 53% of the Overall Project Emissions reductions for the entire Project at full buildout.

²² For purposes of determining the reduction value assigned to the Additional EV Charging Stations, each parking space that is served by an electric vehicle charging station shall be deemed to achieve 588 MTCO₂e reductions over a 30-year period.

²³ Due to variations in land use development patterns, a Village-Level Project may achieve higher or lower percentages of reductions than identified by the Locational Performance Standards. Because compliance with the Locational Performance Standards is required only at the Project level, no demonstration of compliance is required for a Village-Level Project.

1. LOCAL MEASURES

The Department of Regional Planning shall be responsible for enforcing implementation of the Local Measures and the Additional EV Charging Stations, to the extent each measure is applicable to individual Village-Level Projects.

2. LOCATIONAL PERFORMANCE STANDARDS

The Department of Regional Planning shall be responsible for enforcing implementation of Mitigation Measures 2-10 and 2-13 and compliance with the Locational Performance Standards as provided for in this Section X.B.2.

a. Annual Report (Informational Only)

Concurrent with the filing of the annual Mitigation, Monitoring and Reporting Program report to Los Angeles County, the project applicant shall deliver to CDFW and the Department of Regional Planning an informational report with the following information with respect to the previous annual period: (i) rough or bulk grading permits (whichever occurs first in time) for village level grading for the project or a portion thereof, and commercial and residential building permits (excluding tenant improvement, MEP, HVAC and other miscellaneous permits) for the project or a portion thereof, within the annual period, as provided for by Mitigation Measures 2-10 (construction and vegetation change emissions) and 2-13 (operational emissions), respectively; (ii) the GHG emissions reductions required by Mitigation Measures 2-10 and 2-13; and (iii) the GHG Mitigation Credits and/or Carbon Offsets retired by the project applicant, as provided by Mitigation Measures 2-10 and 2-13. No determination as to compliance with the Locational Performance Standards shall be made at the time of submittal of the annual report.

b. Locational Compliance Reports at Major Project Milestones

Within 3 months following the issuance of building permits for every 7,000 residential units or every 3 million square feet of commercial development, the project applicant shall prepare and submit to CDFW and the Department of Regional Planning a "Locational Compliance Report" that shall provide the following information for the project: (i) rough or bulk grading permits (whichever occurs first in time) for village level grading for the project or a portion thereof, and commercial and residential building permits (excluding tenant improvement, MEP, HVAC and other miscellaneous permits) for the project or a portion thereof, as provided for by Mitigation Measures 2-10 (construction and vegetation change emissions) and 2-13 (operational emissions); (ii) the GHG emissions reductions required by Mitigation Measures 2-10 and 2-13; (iii) the GHG Mitigation Credits and/or Carbon Offsets retired by the project applicant, as provided by Mitigation Measures 2-10 and 2-13; and (iv) the locational distribution of retired GHG Mitigation Credits and/or Carbon Offsets for the portion of the project development covered by the Locational Compliance Report, with the distribution showing the total GHG reductions achieved within California, within the United States and internationally.

c. Consistency Determination

If the Department of Regional Planning determines within 90 days following submission of the Locational Compliance Report that the distribution of retired GHG Mitigation Credits and/or Carbon Offsets for the portion of the project development covered by the Locational Compliance Report are not consistent with the Locational Performance Standards identified above in Section X.A, the Department of Regional Planning shall issue a written notice of non-consistency to CDFW and the project applicant that the Locational Performance Standards as required by Section X.A. have not been met. CDFW may request additional information about the basis for any consistency determination. If the Department of Regional Planning does not issue a notice on non-consistency within the 90-day period, the project applicant shall be deemed to be in compliance with the Locational Performance Standards.

The review of the Locational Compliance Report by the Department of Regional Planning shall be limited to this consistency determination. The Department of Regional Planning shall not impose additional conditions or mitigation measures on the project in connection with the consistency review or determination. The notice

of non-consistency shall provide in reasonable written detail the basis of the finding of non-consistency. Upon a finding of non-consistency, the project applicant may submit a revised Locational Compliance Report to the Department of Regional Planning addressing the issues of non-consistency for additional review by the Department of Regional Planning. Upon a finding of non-consistency, no (i) rough or bulk grading permits (whichever occurs first in time) for village level grading for the project or a portion thereof, or (ii) commercial and residential building permits (excluding tenant improvement, MEP, HVAC and other miscellaneous permits) shall be issued until the Department of Regional Planning has issued a notice that the Locational Performance Standards have been met.