Section IV: Performance-based Development

This section discusses the new performance-based development approach and its role in implementing the measures in the CAP that apply to new development projects. The Residential and Nonresidential Project Options checklists summarize the criteria for a project to claim consistency with the CAP and thereby access CEQA permit streamlining for purposes of analyzing GHG emissions. Projects that demonstrate consistency with the CAP by meeting criteria on these checklists are eligible to rely on the City's analysis of GHG emissions for purposes of CEQA. Rather than prescribe a mandatory set of actions that all new projects must meet for CAP consistency, projects can choose from one of several options in the applicable checklist, also referred to as "performance measures." Where certain CAP performance measures also have a visual component, the City provides further guidance in the UDM. Together, the Project Options checklists and UDM use a performance-based approach to identify measures and performance requirements for new projects seeking consistency with the CAP. The minimum options a project must meet for CAP consistency are summarized in the Project Options checklists. Additional information and suggestions are provided in the UDM to help the City further communicate desired outcomes to project applicants.

If new projects are subject to CEQA but do not wish to comply with the CAP or UDM, they may elect to conduct an analysis of GHG emissions and climate change as required by CEQA. Such projects are expected to meet all requirements of CEQA.

The performance-based approach allows projects seeking CAP consistency to choose measures that best meets the project's needs. These measures have already been analyzed by the City and would result in new development collectively achieving reductions that would contribute toward the City's GHG reduction target. The Project Options checklists summarize the options for new projects to comply with CAP measures. The checklists also identify where the UDM provides additional guidance to support projects as they seek to meet the criteria in the Project Options checklists. City staff will use the Project Options checklists and UDM as a basis for identifying conditions of approval for new projects seeking to demonstrate CAP consistency.

Performance Approach

New development projects can demonstrate compliance with the CAP by implementing a selection of specific reduction measures. Projects can choose to implement one of the options outlined below, each of which contains design criteria based on reduction measures from the CAP and PCAP. Projects can demonstrate compliance with the CAP by implementing all reduction measures in the selected option. Each option shows the criteria that would reduce the project's GHG emissions 29% below baseline levels consistent with Air District's recommended CEQA Assessment Guidance. While new projects will implement these measures on a case-by-case basis, when the total impact of each new project's GHG reductions is aggregated, collectively new development would achieve a measureable reduction in GHG emissions that helps the City achieve its adopted GHG reduction target of returning to 1990 GHG emissions levels by 2020. Additionally, the measure options allow projects to achieve GHG reductions that also meet the requirements of the San Joaquin Valley Air Pollution Control District (SJVAPCD) Indirect Source Review Program for new development. The SJVAPCD's Indirect Source Review rule requires that most projects reduce emissions of other air pollutants below specified levels or pay mitigation fees. The measures in the Project Options checklists are intended to help facilitate compliance with the Indirect Source Review rule and other regulations; however, projects that fully comply with the CAP are not necessarily fully compliant with SJVAPCD rules.

As stated above, to demonstrate consistency with the CAP, each project must fully implement all measures in one of the applicable options. However, projects are not prohibited from implementing individual measures that enable the project to potentially achieve reductions beyond what the CAP requires.

The reduction measures in the options are not a complete list of City requirements applicable to new development that reduce GHG emissions. For example, if a project chooses to demonstrate consistency by selecting Option 1, which only requires a renewable energy system of the specified size, the project may still be required to comply with existing City requirements that also help to reduce emissions. Reductions from these items have already been accounted for in the PCAP.

Residential and Nonresidential Project Options Checklists

The applicant will be asked to indicate the option the proposed project will include. Note that, in addition to the options for CAP consistency shown below, the City assumes credit for projects based on numerous regulations already under way. The following reductions from state-mandated actions are already attributed as credits toward the project for GHG reductions, and cannot be claimed as additional credits to meet the performance-based options below:

- Compliance with California's RPS, mandating that utilities procure 33% of their electricity from eligible renewable sources by the end of 2020.
- Vehicles with fuel efficiencies compliant with California's AB 1493 standards, and using fuel that meets the requirements of the state Low Carbon Fuel Standard.
- Compliance with the mandatory items of the California Building Standards Code, including all minimum energy efficiency requirements.

Projects cannot count these actions as additional credits for CAP consistency. Note that the performance-based approach also does not address reductions from water efficiency, reduced solid waste generation, and off-road equipment use; reductions from these items are achieved on a citywide basis year-by-year through other CAP implementation measures, which apply to both existing and new developments. The City implements these measures through other methods, rather than as conditions of approval on new development or remodels.

The options for performance-based compliance with the CAP are provided below in the Project Options checklists. The criteria for each option vary based on project type or the assumed level of participation. Each option provides a level playing field for new projects to select the types of GHG reduction measures that are most cost-effective or applicable to the project. While each option presents different criteria, each option would achieve a similar relative reduction of GHG emissions reductions. Based on analysis in the CAP, the City has determined that projects consistent with the criteria below are meeting the level of GHG reductions for new development identified in the CAP and contribute to the City's achievement of GHG reduction targets. Accordingly, the City will provide the opportunity for streamlining to projects that are consistent with one of the following options.

Note that each option for performance-based measures is further explained in the following tables and sections.

Project Options Checklists

Residential Project Options and Associated Measures					
#	GHG Reduction Measures	Option Set			
		1	2	3	4
1	Install a solar water heating system for indoor use for all units, and for any swimming pools included in the project.		✓	✓	
2	Construct all new buildings to CALGreen Tier 1 standards.				✓
3a	Establish an on-site renewable energy system: The system should be capable of producing at least 7,000 kWh annually for every residential unit (for a solar photovoltaic system, this is a 5 kW system per home).	✓			
3b	Establish an on-site renewable energy system: The system should be capable of producing at least 4,300 kWh annually per unit (for a solar photovoltaic system, this is a 3 kW system per home).		✓		
4a	Reduce vehicle trips (VMT) through measures that support alternative transportation options such as carpooling, walking and bicycling, and increased transit use. The project should use applicable designs from the UDM. A 15% reduction below average for project occupants should be 2,910 per person annually. *		✓		
4b	Reduce vehicle trips (VMT) through measures that support alternative transportation options such as carpooling, walking and bicycling, and increased transit use. The project should use applicable designs from the UDM. A 20% reduction below average for project occupants should be 2,730 per person annually. *			✓	
5	Utilize passive solar design techniques.			✓	
6	Be located in an area of moderate road connectivity with small block sizes, using concepts illustrated in the City's Unified Design Manual. †			✓	
7	Provide one EV charging station (Level 2 or Level 3) per unit.				✓
8	Plant trees to provide shade to building.				✓

*Note: The per person average VMT for project occupants is based on the average VMT for residents and employees in Merced. Depending on the specific size and land use of the development projects, actual per person VMT for individual project occupants may be higher or lower than the target average presented here. This data would typically be available in the common types of project analysis that applicants must submit to the San Joaquin Valley Air Pollution Control District for compliance with the Indirect Source Rule.

†Note: "Moderate road connectivity," as identified by the California Air Pollution Control Officers Association, is at least 45 intersections per square mile.

Residential Project: Applicant Selection of Option with Measures		
Option	Measure Set	Selection: The applicant signs here to denote which option and measures will be installed with the project
1	3a	
2	1, 3b, 4a	
3	1, 4b, 5, 6	
4	2, 7, 8	

Nonresidential Project Options and Associated Measures					
#	GHG Reduction Measures	Option Set			
		1	2	3	4
1	Install a solar water heating system for indoor use for all buildings.			✓	
2	Construct all new buildings to CALGreen Tier 1 standards.	✓	✓		
3a	Establish an on-site renewable energy system: The system should be capable of producing at least 14,400 kWh annually for every nonresidential building (for a solar photovoltaic system, this is a 10 kW system for every nonresidential building).				✓
3b	Establish an on-site renewable energy system: The system should be capable of producing at least 7,200 kWh annually for the average business (for a solar photovoltaic system, this is 5 kW for business).		✓		
4a	Reduce vehicle trips (VMT) through measures that support alternative transportation options such as carpooling, walking and bicycling, and increased transit use. The project should use applicable designs from the UDM. A 15% reduction below average for project occupants should be 2,910 per person annually. *		✓		
4b	Reduce vehicle trips (VMT) through measures that support alternative transportation options such as carpooling, walking and bicycling, and increased transit use. The project should use applicable designs from the UDM. A 25% reduction below average for project occupants should be 2,550 per person annually. *	✓			
5	Utilize passive solar design techniques.			✓	
6	Provide an EV charging station.			✓	
7	Be located in a mixed-use residential/commercial building, with no less than 25% of floor space devoted to either type of use.	✓			
*Note: The per person average VMT for project occupants is based on the average VMT for residents and employees in Merced. Depending on the specific size and land use of the development projects, actual per person VMT for individual project occupants may be higher or lower than the target average presented here. This data would typically be available in the common types of project analysis that applicants must submit to the San Joaquin Valley Air Pollution Control District for compliance with the Indirect Source Rule.					

Nonresidential Project: Applicant Selection of Option with Measures		
Option	Measure Set	Selection: The applicant signs here to denote which option and measures will be installed with the project
1	2, 4b, 7	
2	2, 3b, 4a	
3	1, 5, 6	
4	3a	