



Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead



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TO: Doug Smith, Vice Chair
David W. Louie, Commissioner
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FROM: Bruce Durbin, Supervising Regional Planner 
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PLAN NO. RPPL 2016002293-(1-5)
AMENDMENT TO TITLE 22 IN ORDER TO IMPLEMENT CCAP
RPC MEETING: JUNE 8, 2016 – AGENDA ITEM 7

INTRODUCTION

The Department of Regional Planning (DRP) is working collaboratively with other County Departments to implement the Los Angeles County Community Climate Action Plan 2020¹ (CCAP). At the June 8, 2016, Regional Planning Commission Meeting, DRP staff will provide an update on DRP efforts towards implementation and proposed amendments to Title 22 (Planning and Zoning). This is a discussion item and no Commission action is required at this time.

Specifically, DRP staff will present amendments that support four actions from the CCAP strategy areas: (1) create new vegetated open space, (2) idle reduction, (3) electric vehicle infrastructure, and (4) green building development. A summary of adopted ordinances, proposed ordinances, and recommendations is attached².

BACKGROUND

The CCAP was adopted as part of the General Plan Update on October 6, 2015 and satisfies the County's goals of meeting the recommendations for local governments in Assembly Bill (AB) 32, the California Global Warming Solutions Act. The CCAP describes the County's plan to reduce greenhouse gas emissions in unincorporated LA County by at least 11% below 2010 levels by the year 2020.

The CCAP identifies lead and supporting County departments to coordinate the County's efforts on CCAP implementation, monitoring, and plan updates. DRP is a member of the CCAP Implementation Team and DRP staff is working closely with the team in preparing these amendments. The preliminary implementation schedule calls for adoption of all related ordinances by 2017.

¹ CCAP available at <http://planning.lacounty.gov/ccap>.

² See Attachment A.

To date, DRP staff has completed two amendments that support two CCAP actions: (1) develop urban forests and (2) promote the sale of locally grown food and/or products. These two amendments were both adopted by the Board in the beginning of 2016 and are described below.

Develop Urban Forests (LC-1)

CCAP Action LC-1 is to *support and expand urban forest programs within the unincorporated areas* and identifies goals to *promote tree planting for residential and non-residential developments, conduct a tree inventory to identify tree-deficient neighborhoods, and partner with external and internal organizations to promote urban forests and volunteer events*. The Fire Department is designated as the lead entity on this action. Parks and Recreation (DPR) and DRP are designated as supporting entities. In support of this action, DRP staff worked with Public Works (DPW), Fire Department, Public Health (DPH), and DPR to establish tree planting requirements for new projects in unincorporated Los Angeles County. Ordinance 2016-0016 was adopted by the Board on March 29, 2016 and became effective on April 28, 2016.

Promote the Sale of Locally Grown Food and/or Products (LC-4)

CCAP Action LC-4 is to *promote the sale of locally grown food and/or products* and identifies the goal to *establish local farmers' markets and support locally grown food*. DRP is designated as the lead entity on this action. In support of this action, DRP staff, County Counsel, Office of the Assessor, Treasurer and Tax Collector, and Agricultural Commissioner/Weights & Measures worked together on Ordinance 2016-0023, the Urban Agriculture Incentive Zones program. The program implements AB 551, the Urban Agriculture Incentive Zones Act, and authorizes a property owner of a vacant or unimproved property to enter into an agreement with the County to use the property for agricultural purposes in exchange for a reduced property tax assessment for a period of five years. Ordinance 2016-0023 was adopted by the Board on April 12, 2016 and became effective on May 12, 2016. DRP staff continues to work on education and outreach for this ordinance, including assisting local cities to activate the program within their respective boundaries, writing informational materials, and presenting program information at community events.

PROPOSED AMENDMENTS TO TITLE 22

DRP staff proposes the following amendments and actions to Title 22. The proposed amendments support four CCAP actions: (1) create new vegetated open space, (2) idle reduction, (3) electric vehicle infrastructure, and (4) green building development.

Create New Vegetated Open Space (LC-2)

CCAP Action LC-2 is to *create new vegetated open space* and identifies the goal to *restore and re-vegetate previously disturbed land and/or unused land and suburban areas*. The Fire Department is designated as the lead entity on this action, with DRP, DPR, and DPW as supporting entities. In support of this action, DRP staff proposes to amend Title 22 to allow selected accessory uses within utility right-of-ways, such as parks, open space, and limited agricultural uses, with a minimal review by DRP staff.

Currently, utility right-of-ways exist on properties in 25 of the County's 36 zones. Each zone regulates these selected accessory uses differently: some zones require intensive review, such as a conditional use permit, while other zones require less intensive

review, such as a ministerial review. The proposed ordinance will remove barriers in Title 22 by setting development standards and streamlining procedures for selected accessory uses in utility right-of-ways.

Furthermore, the goal and proposed amendment support the Countywide Comprehensive Parks & Recreation Needs Assessment (May 9, 2016) because it identifies "underutilized land, utility corridors, alleys, and other public lands" for "expand(ed) park opportunities and (to) meet recreational needs." By removing barriers to accessory uses within utility right-of-ways, DRP will help streamline implementation of DPRs goals for identifying additional parkland opportunities.

Idle Reduction (LUT-9)

CCAP Action LUT-9 is *idle reduction* and identifies the goal to *encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specification*. CCAP Action LUT-9 will reduce the California Air Resources Board's limitation on idling from five minutes to three minutes. This action will further reduce greenhouse gas emissions and improve air quality in LA County. DRP is designated as the lead entity on these goals, with DPW and DPH as supporting entities. In support of these goals, DRP staff proposes to (1) incorporate a three minute idle reduction mitigation measure for development projects subject to the California Environmental Quality Act (CEQA) and (2) to amend Section 22.52.1084 (Loading Areas) in Title 22 to require "no idling" signs for loading area on private property. An outreach and education program will follow after these proposals are implemented.

Electric Vehicle Infrastructure (LUT-8)

CCAP Action LUT-8 is *electric vehicle infrastructure* and identifies the goals to *install 500 electric vehicle (EV) charging facilities at County-owned public venues and ensure that at least one-third of these charging stations will be available for visitor use*. ISD is designated as the lead entity on these goals, with DPW and DRP as supporting entities.

In support of this action, DRP staff proposes to amend Part 2 (Yards) of Chapter 22.48 (Yards, Highway Lines and Highways) in Title 22 and codify EV charging facilities as an accessory use on private property in unincorporated Los Angeles County. Currently, Title 22 is silent on EV charging facilities and DRP treats EV charging facilities as an accessory use, subject to the same development standards as any other accessory use (such as yard setbacks and height limits). Codifying EV charging facilities in Title 22 will ensure that such facilities are treated uniformly.

If supported by the Commission, DRP staff proposes to amend Title 22 to modify the definition of "automobile service station" to include alternative fuels for vehicles. The existing definition only includes gasoline and petroleum products as vehicle fuels. In the case that alternative fuels become more prominent in the future, this amendment will ensure that any automobile fuel is covered under this use. Automobile service stations are permitted as a ministerial use in both Commercial and Industrial Zones.

These proposals will expand the number of EV charging opportunities for the public and will help the County meet and exceed future projections for anticipated plug-in electric vehicle (PEV) registrations.

Related to EV, a recent State law, AB 1236: Electric Vehicle Charging Stations, mandates that the building official for local jurisdictions remove obstacles to and minimize costs related to permitting for EV charging stations. DPW is working on an ordinance to implement AB 1236. This ordinance is expected to be adopted by the Board by September 30, 2016.

Green Building Development (BE-1)

CCAP Action BE-1 is *promote and incentivize at least Tier 1 voluntary standards within CALGreen (California Green Buildings Standards Code) for all new residential and nonresidential buildings. Develop a heat island reduction plan and facilitate green building development by removing regulatory and procedural barriers.* ISD is designated as the lead entity on these goals, with DRP as a supporting entity.

In support of this action, DRP staff proposes to amend Title 22 to remove regulatory and procedural barriers and explicitly allow “cool roofs” and “cool pavement” in Title 22. This amendment will also include adding a definition for “heat island effect” and amending the definition for “cool pavement” to be consistent with CALGreen.

CCAP IMPLEMENTATION BEYOND TITLE 22

If supported by the Commission, the following policy options will further reduce greenhouse gas emissions in the unincorporated areas. If pursued, these policy options are in addition to the actions planned in CCAP and will require coordination and collaboration with County Departments to be implemented.

Idle Reduction (LUT-9)

- (1) Amend the County Code to include a voluntary or mandatory 3 minute idling limit for heavy-duty construction equipment.
- (2) Mandate a 3 minute idling limit for County operated heavy-duty construction equipment.
- (3) Mandate a “no idling” policy for County vehicles and post “no idling” signs in loading areas at County facilities.

Electric Vehicle Infrastructure (LUT-8)

- (1) Amend the County Code to mandate CalGreen Tier 1 or Tier 2 *EV readiness* requirements for unincorporated Los Angeles County.
- (2) Amend the County Code to mandate *EV supply equipment* in residential and non-residential developments of a minimum size. Additional research will determine the minimum size and the number of EV charging stations for each development.

As of July 2015, CALGreen mandates basic EV readiness for certain residential developments and nonresidential developments. DPW oversees implementation and compliance with the CALGreen. Please note that the CalGreen 2016 draft update

increases the requirements for new nonresidential development. A summary of current and draft future requirements is attached to this report³.

Preliminary research shows that including EV supply equipment during construction for home charging can cost as little as \$50 for simple installations and up to \$300 for more complex installations⁴ but retrofitting an existing building can cost thousands of dollars⁵.

Green Building Development (BE-1)

- (1) Mandate installation of cool roofs in new construction or substantial roof replacement.

A recently released cost effectiveness study on cool roofs found that they were cost effective for all or nearly all building types in the five climate zones in LA County.⁶ The study states that Tier 2 cool roofs are cost effective for all building types with low-sloped roofs and low-rise multifamily buildings with high sloped roofs in climate zones 6 and 16. For climate zones 8, 9, and 14, the study states that Tier 2 cool roofs are cost effective for all building types with either low- or high-sloped roofs.

Related to cool roofs, DPH is leading a Healthy Design Workgroup comprised of DRP, DPW, DPR, Beaches and Harbors, Fire Department, and ISD, to develop a heat island reduction plan (Plan). The Plan, which is expected to be completed in 2016, will include ordinances, incentive programs, and demonstration projects to promote the preservation and expansion of the urban forest as well as the adoption of cool roofs. The Plan will take important steps towards reducing the impacts of heat to Los Angeles County residents.

CONCLUSION

DRP staff will prepare draft ordinances and present them at a public hearing by Fall 2016.

If you have any questions, please contact the Ordinance Studies Section at (213) 974-6432

BD:AN

Attachments

³ See Attachment C for excerpt.

⁴ Weinert, Richard, et al., California Department of Housing and Community Development, 2013, Electric Vehicle Ready Homes, Report on Electric Vehicle Readiness Study. See Attachment B for the Executive Summary.

⁵ http://driveclean.ca.gov/pev/Costs/Charging_Equipment.php.

⁶ Cost-Effectiveness Study for Cool Roofs FINAL Report for All Climate Zones, prepared for PG&E by TRC Solution, March 2016. See Attachment D for the Executive Summary.

SUMMARY OF CCAP ACTIONS AND AMENDMENTS					
Action	Goal Summary	Lead Entity (Supporting Entity)	Initial Implementation Steps	DRP's Proposed Amendments to Title 22	Additional Measures for RPC's Consideration
LC-1 Develop Urban Forests	Support and Expand urban forest programs within the unincorporated areas.	Fire (DRP, DPR)	<ul style="list-style-type: none"> Promote tree planting for residential and non-residential developments, consistent with the County's Healthy Design Ordinance. Conduct a tree inventory to identify tree-deficient neighborhoods. Partner with external and internal organizations to promote urban forests and volunteer events. 	<ul style="list-style-type: none"> Adopt a tree planting ordinance in Title 22. (Adopted by BOS on March 29, 2016 and became effective on April 28, 2016.) 	
LC-4 Promote the Sale of Locally Grown Foods and/or Products	Establish local farmers markets and support locally grown food.	DRP (AC, DPR, DPH)	<ul style="list-style-type: none"> Expand the Healthy Design Ordinance to encourage and support farmers' markets at community parks Develop an education and outreach program Identify restoration projects 	<ul style="list-style-type: none"> Implement AB 551 (Urban Agriculture Incentive Zones Act) by adopting the Urban Agriculture Incentive Zone program which allows a property owner to enter into an agreement with the County to use the property for agricultural purposes in exchange for a reduced property tax assessment. (Adopted by BOS on April 12, 2016, effective May 12, 2016.) 	
LC-2 Create New Vegetated Open Space	Restore and re-vegetate previously disturbed land and/or unused urban and suburban areas.	Fire (DRP, DPR, DPW)	<ul style="list-style-type: none"> Consider funding and program options Promote community-based restoration programs 	<ul style="list-style-type: none"> Remove barriers in Title 22 to allow utility right-of-ways to be made in to parks or open space. 	
LUT-9 Idle Reduction	Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications. Develop an outreach and education program.	DRP (DPW, DPH)	<ul style="list-style-type: none"> Initiate development of an idling ordinance or policy that outlines goals for reduced equipment idling. Develop an outreach and education program 	<ul style="list-style-type: none"> Require "no idling" signs for loading areas on private property in Title 22. Incorporate an "idle reduction" mitigation measure for development projects that require CEQA review under DRP's review process. 	<ul style="list-style-type: none"> Draft a voluntary "idle reduction" measure per the CCAP goal into the County Code. Require implement "no idling" policies for County vehicles and post "no idling" signs in loading areas at County facilities.
LUT-8 Electric Vehicle Infrastructure	Install 500 electric vehicle (EV) charging facilities at County-owned public venues (e.g. hospitals, beaches, stand-alone parking facilities, public institutions, and other facilities) and ensure that at least one-third of these charging stations will be available for visitor use.	ISD (DPW, DRP)	<ul style="list-style-type: none"> Install EV charging stations at public venues. Identify opportunities to streamline County permitting process for installing home and commercial EV charging. 	<ul style="list-style-type: none"> Define and include "electric vehicle infrastructure" as an accessory use and a primary use in Title 22. 	<ul style="list-style-type: none"> Require EV supply equipment for residential and commercial developments in Title 22, where "economically feasible".
BE-1 Green Building Development	Promote and incentivize at least Tier 1 voluntary standards within CALGREEN (California Green Buildings Standards Code) for all new residential and nonresidential buildings. Develop a heat island reduction plan and facilitate green building development by removing regulatory and procedural barriers.	ISD (DRP)	<ul style="list-style-type: none"> Consider funding and program options. Initiate outreach, training, and education programs. 	<ul style="list-style-type: none"> Define "heat island effect" and remove regulatory and procedural barriers and explicitly allow "cool roofs" and "cool pavement" in Title 22. 	<ul style="list-style-type: none"> Mandate installation of cool roofs in new construction or substantial roof replacement according to "Cost-Effectiveness Study for Cool Roofs Final Report for All Climate Zones" report, last edited on March 30, 2016.

From:

Weinert, Richard, et al., California Department of Housing and Community Development, 2013, *Electric Vehicle Ready Homes, Report on Electric Vehicle Readiness Study*.

Attachment B

EXECUTIVE SUMMARY

The goal of this project is to conduct an assessment (study) of the code requirements, installation costs and other issues for electric vehicle (EV) charging infrastructure in various residential property types. Information from this project will provide information on the rapidly changing nature of EV charging and assist in evaluating building codes and potential for increasing adoption of EVs, which is a type of Zero Emission Vehicle.

This project involved the development of a Scope of Work for the study by a Steering Committee consisting of technical experts, selection of a qualified subcontractor to conduct the study and compile a report on the study methods, background, current and proposed building code requirements, and findings.

Significant findings from the Electrical Vehicle Readiness Study include:

- Existing building codes, builder awareness and public and private sector stakeholder involvement appear to have created a market for the feasibility of EV readiness. For example, availability of EV-ready homes or utility incentives for promoting use of EVs.
- The cost of EV-ready homes does not appear to be a barrier to the implementation of EV chargers and the required infrastructure. Most builders do not see this as a significant cost increase in building a residential dwelling unit or multifamily unit.
- Multifamily units pose the greatest challenge as related to placement of EV chargers.
- The cost for EV readiness ranges from under \$50 for a simple receptacle installation to facilitate Level 1 charging to approximately \$300 per unit to facilitate Level 2 charging (rewiring with circuit breakers including labor but without the cost of the charger).
- Most Investor Owned Utilities (IOUs) agree that if the Level 2 charging requirements are kept at or less than 240 volt, 40 amps within a 200-amp panel there would be little impact on the utility grid infrastructure.
- Some challenges to provide EV charging in residential new construction applications exist, but are not widespread. Examples of challenges include excess costs associated with EV charging for single-family subdivisions located at the end of substation electrical lines, practicality of EV charging for smaller homes for lower income occupants, or location of EV charging areas for multifamily units with distant carport and unassigned parking.

CALGreen Nonresidential Requirements for Electric Vehicle Readiness

Install a listed raceway to accommodate a dedicated 208/240-volt branch circuit and service panel.

Current Requirements			
Total Number of Parking Spaces	Required	Tier 1	Tier 2
0-50	0	1	2
51-75	1	2	3
76-100	2	3	4
101-200	3	5	7
201 and over	3%	4%	6%

CalGreen 2016 Draft Update			
Total Number of Parking Spaces	Required	Tier 1	Tier 2
0-9	0	0	1
10-25	1	2	2
26-50	2	3	4
51-75	4	5	6
76-100	5	7	9
101-150	7	10	12
151-200	10	14	17
201 and over	6%	8%	10%

CALGreen Residential Requirements for Electric Vehicle Readiness

	Required	Tier 1 and Tier 2
New one- and –two family dwellings with attached private garages	Install a listed raceway to accommodate a dedicated 208/240-volt branch circuit	Install a 208/240-volt branch circuit in the required raceway
New multi-family dwellings with 17 or more units	3 percent of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging stations capable of supporting future electric vehicle supply equipment	5 percent of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging stations capable of supporting future electric vehicle supply equipment
No updates to residential requirements are proposed in the CalGreen 2016 draft update.		

Executive Summary

This Cost Effectiveness Study provides information on product cost, energy savings, cost-effectiveness and urban heat island mitigation to support minimum reach code requirements for residential and nonresidential cool roofs for jurisdictions in all California Climate Zones. The 2013 Building Energy Efficiency Standards, effective July 1, 2014, have been used as the baseline for calculating the energy performance of cool roofs. There are 162 steep-slope and 289 low-slope products available to meet the 2013 Title 24 Prescriptive reflectance requirements, including products that meet Reach Code.

Interviews with several roofers and roof supply distributors throughout California in March through December 2014 found that roofers are currently able to meet the Tier 1 and Tier 2 requirements at little or no additional cost, depending on the product selected. Multiple roofers made the statement that there is no additional labor to install cool roof products. This study finds that there are only incremental costs associated with asphalt shingle cool roof products. Concrete and clay tile cool roof products do not have incremental costs over the base case roof. Most low-slope cool roof products also have no incremental costs of the base case, primarily because the roofing commonly used in the state is already a cool roof, though incremental cost data collected has been used in the cost effectiveness analysis to be conservative.

Several building prototypes were simulated in compliance simulation software to estimate the energy savings of cool roofs. The energy savings were compared against the cost data collected to determine the cost effectiveness of cool roofs. Reach Code recommendations are summarized in Table 1 below.

Table 1. Summary of Reach Code Recommendations

CZ	Should Jurisdictions Pursue the Reach Code?					
	Steep-Slope	Tier?	Building Types?	Low-Slope	Tier?	Building Types?
1	No	-	-	No	-	
2	Yes	Tier 2	Low-Rise Multifamily	Yes	Tier 2	All
3	Yes, if costs decrease	Tier 2	Low-Rise Multifamily	Yes	Tier 2	All
4	Yes	Tier 2	Low-Rise Multifamily	Yes	Tier 2	All
5	Yes, if costs decrease	Tier 2	Low-Rise Multifamily	Yes	Minimum	All
✓ 6	Yes	Tier 2	Low-Rise Multifamily	Yes	Tier 2	All
7	Yes	Tier 2	Low-Rise Multifamily	Yes	Tier 2	All
✓ 8	Yes	Tier 2	All	Yes	Tier 2	All
✓ 9	Yes	Tier 2	All	Yes	Tier 2	All
10	Yes	Tier 2	All	Yes	Tier 2	All except High-Rise Multifamily
11	Yes	Tier 2	All	Yes	Tier 2	All
12	Yes	Tier 2	All	Yes	Tier 2	All
13	Yes	Tier 2	All	Yes	Tier 2	All except High-Rise Multifamily
✓ 14	Yes	Tier 2	All	Yes	Tier 2	All

CZ	Should Jurisdictions Pursue the Reach Code?					
	Steep-Slope	Tier?	Building Types?	Low-Slope	Tier?	Building Types?
15	Yes	Tier 2	All	Yes	Varies	Tier 2 for Low-Rise Multifamily and Nonresidential Tier 1 for High-Rise Multifamily
✓ 16	Yes	Tier 2	Low-Rise Multifamily	Yes	Tier 2	All

The use of cool roofs as an Urban Heat Island mitigation strategy brings many benefits, including reduced energy use, reduced air pollution and greenhouse gas emissions, and improved human health and comfort.

