Single-Family Electric Readiness Staff Report Version Tracking

|  |  |  |
| --- | --- | --- |
| **Date** | **Version #** | **Description of Changes** |
| 08/01/2025 | 1.0 | Original Release |

***Introduction***

*This is a customizable template for completing an electric-readiness staff report. Blue in-line text needs customization- things like dates, local legislation, staff, and ordinance-specific references for your customized reach code. Complete these sections to customize this staff report to reflect your local context and reach code.*

[DATE]

**FROM:** *[Department Head Name, Title]*

*[Other Contributor(s), Title]*

**Prepared By:** *[Report-writer Name, Title]*

*[Other Contributor(s), Title]*

**SUBJECT: *[****Electric Readiness POLICY FOR major residential additions and alterations]*

**Recommendation**

Adopt an ordinance amending [jurisdiction] Municipal/County Code Section [xxx] to require that major additions and alterations in single family homes, duplexes and townhomes must include electric readiness as part of their project.

BACKGROUD

*[Include local policy that is relevant in this section. Some common examples are Climate Action Plans, legislation, Council climate action goals, commission findings, mayoral direction, local referenda, or any other reason a reach code was pursued by this jurisdiction[.*

A suite of adopted City Council policies support the staff recommendation to adopt the *[use policy reference/description in subject line]* for existing single-family residential buildings. A select summary of this policy context is below:

* *XXXXXXX*
* *XXXXXXX*
* *XXXXXXX*

*[Use this section to highlight staff direction and timeline associated with developing the ordinance for existing single-family]*

DISCUSSION

Background

*[Use this section to highlight staff direction and timeline associated with developing the ordinance for existing single-family homes.]*

On *[Month DD, YYYY]*, the Council approved *[Ordinance/Resolution XY]*, which directed staff to *[develop electric readiness policies for existing buildings].*

On *[Month DD, YYYY]*, staff conducted a [Study Session] with *[Governing Body of Jurisdiction]* to discuss the various policy options available to increase the rate of existing buildings emissions reductions. Council directed staff to return in *[YYYY]* with draft electric readiness requirements for major additions and alterations. This report and the attached proposed ordinance provide these draft requirements, referred to as the *[Policy name]*, for Council’s consideration.

proposed policy

*[Use this section to describe how the reach code builds on the policies listed in the policy context section]*

The *[Policy name]* would require that specific major additions and alterations (as further defined herein) will need to include electric readinessas part of their project. The policy is focused on *[pre-wiring for gas cooking, water heating, clothes drying and outdoor appliances to reduce future retrofit cost when these appliances are electrified.]*  The policy will also prepare homes for compliance with South Coast Area Air District’s Rule 1146.2, which limit the sale of natural gas-fueled building appliances.

*Electric Ready Requirements for Renovations, Remodels, and Additions*

Section 150.0 in the 2025 California Energy Code requires the construction of new mixed-fuel single family buildings to include “electric ready” components, including electric outlets near natural gas appliances, specifically, clothes dryers (section 150.0(v)), cooktops (section 150.0(u)), gas-fueled furnaces (section 150.0(t)) or gas-fueled water heaters (section 150.0(n)), including reserved and labeled breakers in the electrical panel for a future electric appliance. However, the current code does not require electric-ready components for renovations, remodels, and additions for all of these appliances. *[Jurisdiction]* proposes a reach code requiring the installation of electric-ready components when *[electrical permitted work is performed around existing gas equipment.]* Opportunities for future-proofing homes that install gas equipment include:

1. **Gas Cooking Range** 
   * + - * Install a 125-volt 20-amp receptacle
         * Pathway for a 240-volt 50-amp circuit for a future electric cooktop
2. **Gas Clothes Dryer**
   * + - * Install a 125-volt 20-amp receptacle
         * Pathway for a 240-volt 30-amp circuit for a future electric clothes dryer
3. **Water Heating**
   * + - * Install a 125-volt 20-amp receptacle
         * Pathway for a 240-volt 30-amp circuit for a future heat pump water heater
         * Pathway for a condensate drain
         * Physical space reserved for a future heat pump water heater (2.5’ x 2.5x 7’)
       1. **Space Heating**
          - Physical space reserved for a future heat pump space heater
       2. Gas Line Extensions for Outdoor Gas Appliances
          - Install conduit
          - Reserve breaker space for future electric appliance
          - Physical space for future electric appliance
       3. ***Battery Storage*** 
          - *BESS ready interconnection with 60-amp capacity and a minimum 4 ESS supplied circuits*
          - *A dedicated raceway from the main service to a panelboard supplying 4 BESS branch circuits*
          - *Identify 4 branch circuits collocated at a panelboard suitable for BESS*
       4. ***All- Electric Plan*** 
          - *Provide a plan with line diagrams and calculations to electrify:*

*all appliances with gas stub outs (space conditioning, water heating, range, clothes dryer)*

*Low Power Level 3 EV charger*

*BESS rated for 240-volt, 60-amp*

* + - 1. **Electrical Power Upgrades (The purpose of this requirement is to educate contractors and the industry on ways to minimize panel upgrades when electrifying equipment) This only requires documentation of calculations and it does not require the installation of any of the below devices.**
         * Demonstrate upgrades to electrical power infrastructure are required by documenting:

Calculations in accordance with California Electrical Code Article 220.83 demonstrating future loads exceed current electrical power infrastructure.

If the data are available, calculations in accordance with California Electrical Code Article 220.87 demonstrating future loads exceed current electrical power infrastructure

* + - * + Calculations above must include at least one of the following:

One power management or circuit controlling device

One 120 volt electric-only clothes dryer, water heater or range

Circuit control between whole home load and ether Level 2 EV charging receptacle or Low Power Level 2 EV charging receptacle

Exceptions to electric-readiness requirements

1. *Repairs and safety improvements*
2. *Electrical permit is not otherwise required for the project other than compliance with this section*
3. *Panel capacity is not required to exceed the existing utility electrical service to the building to meet the requirements of this section*
4. *Mobile homes, manufactured housing, factory-built housing*
5. *Emergency housing*
6. *ADUs conversions pursuant to Government Code 66323*

*Impacts*

While the California Energy Commission does not review electric readiness requirements as they are not efficiency measures, the electric readiness measures do not need to demonstrate cost-effectiveness. However, below are cost-estimates for typical electric infrastructure costs to demonstrate typical incremental cost:

* Reserving breaker space: $0-$50
* Running a new dedicated circuit: Up to $1,000 per circuit
* Adding conduit: Up to $1,000

The above costs are low compared to the typical initial cost of tens of thousands of dollars for major additions and alterations. Intervening at this point provides an opportunity to save money in the future by including electrical infrastructure when there is already a contract on site and there is already some demolition happening.

*Available Resources for Lower Cost Renovations*

Many of the compliance measures have rebates, incentives, and tax credits associated with them which could substantially reduce the cost of compliance. Financial resources and technical assistance include:

[Add any incentives that are available locally or regionally]

Public Engagement

Ahead of the *[DATE]* study session on existing buildings, staff conducted numerous public engagement activities. Since receiving Council strategic direction to develop an additions and alterations retrofit policy at that study session, staff have conducted the additional following outreach:

[Summarize public outreach and engagement activities.]

Policy Implementation Considerations

The policy would be implemented via an additional/modified intake form required at time of building permit submittal. Building staff would review the application for consistency with the policy and field verification would happen as part of the typical inspection process.

Schedule and Next Steps

Should Council approve staff’s recommendations, work would proceed on the timeline provided in Table 2 below.

**Table 2. Schedule and Next Steps**

|  |  |
| --- | --- |
| **Task** | **Timeframe** |
| Second reading of the draft Ordinance (Attachment A) and submittal to the California Building Standards Commission |  |
| Develop implementation forms, training, and help desk services |  |
| California Building Standards Commission approves for filing |  |

ENVIRONMENTAL REVIEW

[This text should be prepared by qualified staff and should read the same as the ordinance. Two samples are provided below. Edit as needed]

Staff’s recommendations are found to be exempt from CEQA under the general rule, 15061(b)(3), because it can be seen with certainty that the provisions contained herein would not have the potential for causing a significant effect on the environment. Further, this ordinance is also exempt from CEQA under the categorical exemptions in Section 15308 of the CEQA Guidelines in that the proposed ordinance would institute regulatory requirements intended to protect the environment and natural resources.

This ordinance is exempt from CEQA under 15061(b)(3) on the grounds that these standards are more stringent than the State energy standards, there are no reasonably foreseeable adverse impacts and there is no possibility that the activity in question may have a significant effect on the environment.

ALTERNATIVES

1. *XXXXXX*
2. *XXXXXX*
3. *XXXXXX*

ATTACHMENTS

1. *Ordinance Adopting the [Policy name]*
2. Version of the Ordinance Showing Markup of State Building Code