

DOCKETED

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City of Arcata Residential New Construction

Local Energy Ordinance #1507

(Permit Applicant Handout)

The City of Arcata has adopted a local energy efficiency ordinance, or reach code, that requires new low-rise residential buildings to be designed and constructed to exceed minimum 2016 Title 24, Part 6 energy efficiency standards. The ordinance is intended to achieve energy savings, reduce greenhouse gas emissions, and the environmental footprint of new developments.

WHAT are Reach Codes?

California cities and counties have the authority to adopt local energy ordinances, sometimes called “Reach Codes,” that are more stringent than the minimum standards defined by the State’s Title 24, Part 6 Building Energy Efficiency Standards. These codes require local projects to exceed minimum requirements established in the state’s building code.

WHY did Arcata adopt a reach code?

- **General Plan Goals:** The ordinance helps the City Of Arcata advance its policies and aggressively pursue local Climate Action Plans goals, such as Arcata’s “Community Greenhouse Gas Reduction Plan.”
- **Reduce Emissions:** By encouraging these new residential building practices Arcata is demonstrating its support of reducing the community’s **greenhouse gas emissions** and recognition of how the amount of energy we use, and its source have an important role in overall climate change.
- **State Goals:** This ordinance aligns with California’s related policy goals, such as the **California Global Warming Solutions Act (AB32)** requiring the state to reduce greenhouse gas emissions to 1990 levels by 2020.
- **Cost Effective Energy Savings:** Using energy efficiency measures plus on-site renewable energy generation is a cost-effective way to exceed the minimum state requirements. Over the lifetime of the measures, the estimated energy cost savings outweigh the initial incremental costs.
- **Financial Savings:** Local energy ordinances require buildings to be more efficient than statewide standards—the implementation of this ordinance will provide energy cost savings that benefit the community when those savings are reinvested locally.

City of Arcata Residential New Construction Ordinance #1507—Requirements

Arcata has adopted a performance-based ordinance that requires **newly-constructed** low-rise residential buildings to exceed minimum compliance requirements using either energy efficiency measures only or a combination of energy efficiency measures and the Photovoltaic Compliance Credit (PVCC).

Single Family Buildings

- Of no more than two dwelling units
- Have an Energy Budget no greater than **70%** of the Energy Budget for the Standard Design
- Minimum PV System Size = 2 kWDC* (dependent on conditioned floor area); PVCC can account for up to 8.0% of the reduction in Energy Budget.

Multi-Family Buildings

- Have an Energy Budget no greater than **80%** of the Energy Budget for the Standard Design
- Minimum PV System Size = 1 kWDC* (dependent on conditioned floor area); PVCC can account for up to 4.4% of the reduction in Energy Budget.

**Maximum PV System Size is limited to no more than providing 100% of the building's annual electrical usage to avoid grid impacts.*

Note: Exemptions are available when the requirements are deemed infeasible, such as limited solar access, or the building utilizes alternate on-site renewable electricity generating systems.

Building Efficiency Measures Frequently Installed for Compliance Credit

- Improved window performance—reduce U-factor to 0.30 or lower
- High Performance Attic and Walls
- High efficiency heating and water heating equipment
- Reduced infiltration (ACH50)—three (3) air changes per hour (single family only)
- High Efficacy Fan—upgrade furnace or air handler fan to meet efficacy of 0.3 W/cfm
- Hot Water Compact Distribution system (requires HERS verification)

Additional Resources

City of Arcata:

(Placeholder for link to actual ordinance once available)

[City of Arcata Community Greenhouse Gas Reduction Plan](#)

California State Agencies:

[CEC-Approved 2016 Local Energy Ordinances](#)

[California Air Resources Board Assembly Bill 32 Overview](#)

Title 24, Part 6 Education and Incentives:

[California Advanced Home Program](#)

[Energy Code Ace](#)