



MARIN COUNTY
COMMUNITY DEVELOPMENT AGENCY
BRIAN C. CRAWFORD, DIRECTOR

May 4, 2010

Board of Supervisors
County of Marin
3501 Civic Center Drive
San Rafael, California 94903

SUBJECT: First reading of proposed Green Building Ordinance amendments to Marin County Code Title 19 (Building Code).

Dear Board Members:

RECOMMENDATION:

Initiate an amendment to the Building Code updating the County's green building requirements by taking the actions listed below. These amendments are for minor revisions to the Building Code update approved by the Board of Supervisors in February 2010, as recommended by the California Energy Commission.

1. Read proposed Ordinance by title only.
2. Schedule a merit hearing for May 18, 2010.

SUMMARY:

On February 9, 2010, the Board of Supervisors approved an Ordinance amending the Building Code to update the County's green building standards. The standards apply to all new construction, additions, and remodels for residential and commercial projects. The ordinance furthers the County's sustainability goals and policies by requiring green building through the building permit review process.

The adopted Green Building Ordinance was submitted to the CEC immediately following the Board's adoption on February 9, 2010, and comments were received on March 23, 2010. CEC staff recommends five revisions to the ordinance, all reiterating that Title 24, Part 6 of the California Building Code are the minimum energy efficiency requirements that will be enforced by the County. This is consistent with the intent of the County's ordinance, which continues to utilize Title 24, Part 6 as the base energy budget for a building, but which imposes a higher standard (greater energy efficiency requirements and a lowered energy budget) on new single family dwellings, additions, and substantial remodels.

CEC staff indicates that they will approve the revised ordinance at their regular meeting on May 5, 2010. The California Building Standards Commission is also required to review the revised ordinance, but their review is ministerial and will only verify that the Board has adopted the necessary findings.

If the Board adopts the ordinance amendments, the Green Building Standards will take effect on June 18, 2010.

REVIEWED BY: Auditor-Controller N/A
 County Counsel N/A
 Human Resources N/A

Respectfully Submitted,

Reviewed by:



Omar Peña
Assistant Planner

Brian C. Crawford
Agency Director

Attachments:

1. Proposed ordinance adopting amendments to Marin County Code Title 19 (Building Code) including Exhibit A
2. Proposed text amendments (with revision marks)

MARIN COUNTY BOARD OF SUPERVISORS

ORDINANCE NO. _____

AN ORDINANCE ADOPTING AMENDMENTS TO
MARIN COUNTY CODE TITLE 19 (BUILDING CODE)

SECTION I. FINDINGS

The County of Marin Board of Supervisors ordains as follows:

WHEREAS, the Green Building Ordinance was introduced at a regular meeting of the Board of Supervisors on the 26th day of January, 2010, and adopted by the Board of Supervisors of the County of Marin, State of California, on the 9th day of February 2010.

WHEREAS, the Marin County Community Development Agency initiated proposed amendments to Marin County Code Title 19 (Building Code). The Building Code includes building and energy efficiency regulations that apply to the unincorporated areas of Marin County. The proposed amendments include revisions to the provisions of the Building Code to clarify that the California Building Code contained in Title 24, Part 6 of the California Code of Regulations will be enforced as the minimum energy efficiency standard.

WHEREAS, the ordinance proposing amendments to Title 19 was introduced at a regular meeting of the Board of Supervisors on the 4th day of May, 2010, and adopted by the Board of Supervisors of the County of Marin, State of California, on the 18th day of May 2010; and

WHEREAS, the Marin County Board of Supervisors certified a Final Environmental Impact Report (EIR) for the CWP prior to the adoption of the CWP. The certified EIR adequately evaluated the Building Code, which functions as an implementing program to the CWP. The EIR certified for the CWP adequately describes the current approval for the purposes of CEQA. A subsequent or supplemental EIR is not required pursuant to CEQA Guidelines Section 15162 because the proposed project does not include substantial changes involving new or more severe significant environmental effects, nor does the proposal involve new information that was not known at the time the EIR for the CWP was certified.

WHEREAS, the California Energy Commission will not approve the Green Building Standards, and the Standards will not be effective, until the Board of Supervisors adopts the amendments to the Building Code as set forth in this Ordinance.

SECTION II: AMENDMENTS TO TITLE 19

NOW, THEREFORE, BE IT RESOLVED that the Marin County Board of Supervisors hereby adopts the amendments to Marin County Code Title 19 (Building Code) as depicted in Exhibit "A" of this Ordinance. The requirements of Marin County Code Chapter 19.04 shall govern the applicability of the approved amendments to existing projects that are in the development review process.

SECTION III: EFFECTIVE DATE

This Ordinance shall be and is hereby declared to be in full force and effect as of sixty (30) days from and after the date of its passage and until the Ordinance provisions are approved by the California Energy Commission, whichever comes later. The Ordinance shall be published once before the expiration date of fifteen (15) days after its passage, with the names of the Supervisors voting for and against the same in the Marin Independent Journal, a newspaper of general circulation published in the County of Marin.

SECTION IV: VOTE

PASSED AND ADOPTED at a regular meeting of the Board of Supervisors of the County of Marin held on this 18th day of May by the following vote:

AYES:

NOES:

ABSENT:

PRESIDENT, BOARD OF SUPERVISORS

ATTEST:

CLERK

EXHIBIT "A"

PROPOSED TEXT AMENDMENTS MARIN COUNTY BUILDING CODE (TITLE 19)

SECTION I Chapter 19.04 of the Marin County Code is hereby amended to read as follows:

19.04.100 Energy Efficiency Standards for Single Family Dwellings, Multi-Family Residential and Commercial Construction.

- A. Definitions. For the purposes of this section, the following definitions shall apply:
1. "Current Standards." The 2008 California Building Energy Efficiency Standards or subsequently adopted state energy standards, whichever is applicable at the time of the building permit application, including California Code of Regulations, Title 24, Parts 1 and 6.
 2. "Solar Photovoltaic Energy System." A photovoltaic solar collector or other photovoltaic solar energy device that has a primary purpose of providing for the collection and distribution of solar energy for the generation of alternating current rated peak electricity. The installation of any solar photovoltaic energy system must meet all installation criteria of the current edition of the California Electrical Code and the California Energy Commission *Guidebook Eligibility Criteria and Conditions for Incentives for Solar Energy Systems Senate Bill 1*.
 3. "Photovoltaic (PV) Credit." A TDV Energy credit that may be used to achieve compliance with the requirements of this section. This credit is available if the solar photovoltaic energy system is capable of generating electricity from sunlight, supplying the electricity directly to the building, and the system is connected, through a reversible meter, to the utility grid. The methodology used to calculate the energy equivalent to the photovoltaic credit shall be the CECPV Calculator, using the most recent version prior to the permit application date, which may be found at the following web site:
http://www.gosolarcalifornia.ca.gov/nshpcalculator/download_calculator.html
 4. "Alternative Proposed Design Credit." An energy credit for alternative energy system designs that may be used to achieve compliance with the requirements of this section subject to approval by the Chief Building Official and the Director of the Marin County Community Development Agency. Alternative energy system designs may include, but are not limited to, any renewable energy system which is not a solar photovoltaic system and any energy-efficiency measures not included in the Title 24 performance analysis which significantly exceed current building practice or applicable minimum state or federal efficiency standards. The permit applicant must submit calculations to document, explain and justify the amount of the credit claimed.
 5. "Net Zero Energy." A building that has a net annual Time Dependent Valued (TDV) Energy Consumption, as defined by Title 24 of the California Code of Regulations, of zero, accounting for both energy consumption and the use of on-site renewable energy production.

- B. Covered Projects. The provisions of this section shall apply to the following types of building projects for which a building permit is applied for and accepted as complete by the Building and Safety Division after the effective date of this section:
1. New single family dwellings resulting in a total dwelling size of 500 square feet or greater of total conditioned floor area.
 2. Additions to single family dwellings resulting in a total dwelling size of 1,500 square feet or greater of total conditioned floor area and where Title 24 energy performance documentation is submitted which uses the Existing + Addition or Existing + Addition + Alteration calculation method.
 3. Substantial remodels, as defined in this code, to single family dwellings resulting in a total dwelling size of 1,500 square feet or greater of total conditioned floor area and where Title 24 energy performance documentation is submitted which uses the Existing + Alteration or Existing + Addition + Alteration calculation method. (For the purposes of this section, the terms "remodel" and "alteration" are synonymous.)
 4. New multi-family residential construction.
 5. New commercial construction resulting in 5,000 square feet or greater of total conditioned floor area.
- C. Exemptions. Affordable housing dwellings approved by the Agency Director are exempted from the requirements of this ordinance, but must comply with the 2008 California Building Energy Efficiency Standards (Title 24, Part 6) of the California Building Code.
- D. Compliance. A building permit subject to the provisions of this section will not be issued by the Building and Safety Division unless the energy compliance documentation submitted with the permit application meets the requirements of this section. A certificate of occupancy will not be granted until a Certificate of Field Verification and Diagnostic Testing (CF-4R) for the permitted project is submitted to the Building and Safety Division when applicable. A certificate of occupancy will not be granted unless the work authorized under a permit has been constructed in accordance with the approved plans, conditions of approvals and requirements of this section.
- E. General Requirements. All covered projects subject to the provisions of this section shall exceed the Current Standards using the performance approach by the percentage (%) indicated in the Compliance Table corresponding to the dwelling's resultant total conditioned floor area.

Residential Compliance Table	
Dwelling Size ¹ (Total Conditioned Floor Area)	Buildings Must Exceed the Current Standards by:
500 – 3,999 SF	15%
4,000 – 5,499 SF	20%
5,500 – 6,499 SF	30%
7,000+	<i>Net zero energy</i>

Note 1: All additions and/or substantial remodels in dwellings with a total conditioned floor area of 1,500 square feet or greater, and where compliance with the Title 24 Standards uses the Existing + Addition + Alteration performance method, shall meet the requirements of the Compliance Table.

Multi-Family Residential Compliance Table	
Building Size (Total Conditioned Floor Area)	Buildings Must Exceed the Current Standards by:
All	15%

Commercial Compliance Table	
Building Size (Total Conditioned Floor Area)	Buildings Must Exceed the Current Standards by:
5,000+ sq. ft.	15%

1. New single family dwellings subject to the provisions of this section shall meet both of the following:
 - a. Exceeding the Current Standards as specified in the Compliance Table, using the performance compliance approach; and,
 - b. Meeting all other provisions applicable to low-rise residential buildings contained in the Current Standards.

2. Additions and/or alterations to single family dwellings subject to the provisions of this section shall meet one of the following requirements:
 - a. The addition and /or alteration shall comply with subsection E.2.; or,
 - b. The energy efficiency of the existing building shall be improved so that the existing building plus the addition and/or alteration meet the requirements listed in the Compliance Table.

3. A building project may use the solar PV Credit and/or the Alternative Proposed Design Credit to meet the requirements of subsection E.1. if the proposed building exceeds the Current Standards using the performance compliance approach by at least 15.0%.
 4. In addition to the standard Title 24 report and when a permit applicant is applying for Solar PV Credit or an Alternative Proposed Design Credit, a special compliance and calculation form, which shall be available at the Community Development Agency, documenting compliance with the provisions of this section shall be submitted with the building permit application and included on all plan sets with the CF-1R.
 5. HERS field verification and diagnostic testing. All buildings, additions, and remodels subject to the provisions of this section shall be field verified, by a certified HERS rater when required by these Local Standards. Verification shall be in accordance with protocols established in the Residential Field Verification and Diagnostic Testing Regulations Manual. A CF-4R, when required by the Current Standards, shall be submitted to the Building and Safety Division to demonstrate compliance prior to issuance of a certificate of occupancy.
- F. Modifications. Whenever there are practical difficulties involved with carrying out the literal provisions of this Section; the Building Official, in consultation with the Community Development Agency Director, shall be authorized to grant modifications for individual cases, upon application by the owner or owner's representative, provided that the Building Official determine the requested modification is in compliance with the intent and purpose of this section.

19.04.110 Green Building Requirements.

Sections:

- 19.04.110 - Purpose
- 19.04.120 - Applicability
- 19.04.130 - Definitions
- 19.04.140 - Standards for Compliance
- 19.04.150 - Incentives for Compliance
- 19.04.160 - Administrative Procedures
- 19.04.170 - Exemptions

19.04.110 Purpose.

The purpose of this Chapter is to enhance the long-term public health and welfare by contributing to the overall reduction of greenhouse gas production and emissions and improving the environmental and economic health of the County through the efficient design, construction, operation, maintenance and deconstruction of buildings and site development by incorporating green building practices and materials. The green building provisions referenced in this Chapter are designed to achieve the following objectives:

1. Increase energy efficiency in buildings;
2. Encourage water and resource conservation;
3. Reduce waste generated by construction projects;
4. Reduce long-term building operating and maintenance costs; and
5. Improve indoor air quality and occupant health; and
6. Contribute to meeting the state and local commitments to reduce greenhouse gas production and emissions.

19.04.120 Applicability.

The provisions of this Chapter shall apply to all construction or development projects defined below as a "Covered Project."

19.04.130 Definitions.

For the purposes of interpreting this Chapter and the associated Standards for Compliance, the following terms are defined as follows. When the definitions below differ from those contained elsewhere in this Title, the provisions of this Chapter shall apply.

1. "Addition" means the addition of building square footage to an existing structure.
2. "BIG" means Build It Green, a non-profit organization which established and maintains the Green Point Rated system for evaluating and certifying residential green buildings and green building professionals.
3. "BPI" means the Building Performance Institute, a non-profit organization which provides training and certification of green building professionals.
4. "Building envelope" means the ensemble of exterior and demising partitions of a building and roof structure that enclose conditioned space.
5. "Compliance threshold" means the minimum number of points or rating level required to be achieved by a particular Covered Project as set forth by the Standards for Compliance outlined in Section 19.04.140.
6. "Conditioned space" means any area within a building or structure that is heated or cooled by any equipment.

7. "Covered project" means a development project for which one or more building permits are required for new construction or remodels as set forth by the Standards for Compliance outlined in Section 19.04.140.
8. "GBCI" means the Green Building Certification Institute, a non-profit organization which certifies green buildings and green building professionals under the LEED® rating system.
9. "Green building" means a comprehensive process of design and construction that employs techniques to increase the efficiency of resource use, including energy, water and building materials, while minimizing adverse impacts on human health and the natural environment.
10. "Green building checklist" means a checklist or rating sheet used for calculating a green building rating.
11. "Green building rating system" means a standardized rating system providing specific criteria to determine the level of compliance of building projects as set forth by the Standards for Compliance outlined in 19.04.140.
12. "GreenPoint Rated" means a residential building certified as complying with the green building rating systems developed by the Build It Green organization.
13. "GreenPoint Rater" means an individual certified by Build It Green as capable of evaluating and rating residential construction projects for compliance with the GreenPoint Rated green building rating systems.
14. "HERS" means the Home Energy Rating System adopted by the California Energy Commission.
15. "LEED®" means the "Leadership in Energy and Environmental Design" green building rating system developed by the U.S. Green Building Council.
16. "LEED® AP" means an individual who has been certified a LEED® Accredited Professional by the U.S. Green Building Council or the Green Building Certification Institute as capable of evaluating and rating construction projects for compliance with the LEED® green building rating systems.
17. "Net Zero Energy" means a building that has a net annual Time Dependent Valued (TDV) Energy Consumption, as defined by Title 24 of the California Code of Regulations, of zero, accounting for both energy consumption and the use of on-site renewable energy production.
18. "New construction" means the construction of a new or replacement residential dwelling unit or a new or expanded commercial building.
19. "Qualified green building rater" means an individual who has been trained and certified as a LEED® AP, GreenPoint Rater or has similar qualifications and certifications if acceptable to the Chief Building Official.
20. "Renovation" means any remodeling, modification or tenant improvement to an existing building that includes replacement or alteration of at least two of the following: heating/ventilating/air conditioning system, building envelope, hot water system or lighting system, but excluding improvements and project valuation related to seismic or disabled access, building replacement due to catastrophic loss due to flood or earthquake damage or installation of renewable energy systems. Renovation shall include any addition of conditioned space to an existing dwelling unit.

21. "USGBC" means the U.S. Green Building Council, a non-profit organization which established and maintains the LEED® rating systems for evaluating and certifying residential green buildings and green building professionals.

19.04.140 Standards for Compliance.

The Marin County Green Building Requirements define which projects shall be deemed to be "Covered Projects" within the meaning of this Chapter, and establishing "Compliance Thresholds" applicable to Covered Projects.

- A. All Covered Projects shall comply with the Standards for Compliance which shall include, but not be limited to, the following:
 - (1) The types and sizes of projects subject to regulation (Covered Projects);
 - (2) The green building rating system(s) applicable to various types of Covered Projects;
 - (3) Minimum compliance thresholds for various types of Covered Projects; and
 - (4) The methods for verification of compliance with these regulations.
- B. Cumulative new construction or remodels over any one-year period shall be considered as a single Covered Project, and subject to the highest compliance threshold based on the cumulative project size or valuation.
- C. The Chief Building Official shall determine the appropriate project valuation based on the cost of similar improvements, and may request substantiating documentation from the applicant. Where Compliance Thresholds contain project size ranges expressed as both building square footage and project valuation, the intent is to base project requirements upon the project valuation range. However the Chief Building Official shall have the authority to determine whether the building square footage or valuation range most accurately reflects the scope of the proposed project for purposes of determining the required minimum Compliance Threshold.
- D. The Chief Building Official may determine that an alternative green building rating system may be used to determine project compliance, where it can be demonstrated that the alternative rating system is as stringent as or greater in terms of reduced energy and resource use and improved interior air quality than that normally required by the Standards for Compliance.
- E. Mixed use (residential and commercial) projects must comply either with the applicable Covered Project requirements for the respective residential and commercial portions of the project, or may propose to utilize a mixed use rating system, subject to approval by the Chief Building Official.
- F. The cost of reviewing any proposals requesting the use of alternate green building rating systems or requests for exemptions including, but not limited to, the cost of the County of hiring a consultant to review the proposal, shall be borne by the applicant.
- G. All buildings submitted for permit must meet all applicable requirements of the 2008 Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6, or subsequently adopted state energy standards.
- H. The applicable green building rating system shall be that which is most recently adopted by Build It Green or the U.S. Green Building Council. The green building rating system in effect at the time of building permit submittal shall be

that which is applicable to the development project throughout the project construction.

19.04.150 Incentives for Compliance.

In addition to the required standards for compliance, the Board of Supervisors may establish by resolution financial or application processing incentives and/or award or recognition programs to encourage higher levels of green building compliance for a project.

19.04.160 Administrative Procedures.

The procedures for compliance with the provisions of this Chapter shall include, but not be limited to, the following:

- A. Project design: Applicants for a Covered Project are strongly encouraged to involve a qualified green building rater in the initial design phases of the project in advance of submittal of an application to determine applicable green building compliance thresholds and the most cost effective and appropriate means of achieving compliance.
- B. Planning applications: If a discretionary planning application is required for a Covered Project, applicants should be prepared to identify expected green building measures to be included in the project to achieve the compliance thresholds. Applicants should identify any anticipated difficulties in achieving compliance and any exemptions from the requirements of this Chapter that may be requested.
- C. Building plan check review: Upon submittal of an application for a building permit, building plans for any Covered Project shall include a green building program description and completed checklist. The checklist shall be incorporated onto a separate full-sized plan sheet included with the building plans. A qualified green building rater shall provide evidence that the project, as indicated by the project plans and green building program description, will achieve the Standards for Compliance outlined in Section 19.04.140 prior to issuance of a building permit.
- D. Changes during construction: During the construction process, alternate green building measures may be substituted, provided that the qualified green building rater provides documentation of the proposed change and the project's continued ability to achieve the Standards for Compliance to the Chief Building Official.
- E. Final building inspection: Prior to final building inspection and occupancy for any Covered Project, a qualified green building rater shall provide evidence that project construction has achieved the required compliance set forth in the Standards for Compliance outlined in Section 19.04.140. The Chief Building Official shall review the documentation submitted by the applicant, and determine whether the project has achieved the compliance threshold as set forth in the Standards for Compliance outlined in Section 19.04.140. Where subsequent certification of the building is required by the Standards for Compliance, the Chief Building Official shall also determine whether the applicant has demonstrated that such certification is in process and will be achieved not later than one year after approval of final building inspection. If the Chief Building Official determines that the applicant has met these requirements, the final building inspection may proceed.
- F. Post final inspection requirement: Where certification of the building is required by the Standards for Compliance, and such certification is only available

subsequent to occupancy of the completed building, the applicant shall provide documentation of such certification within one year of the date of the final building inspection for the project. Failure to provide evidence of this certification within this timeframe, or within an alternate timeframe as determined by the Chief Building Official, will result in a determination that the Covered Project is not in compliance with the requirements of this Chapter.

- G. Conflict with other laws: The provisions of this Chapter are intended to be in addition to and not in conflict with other laws, regulations and ordinances relating to building construction and site development. If any provision of this Chapter conflicts with any duly adopted and valid statutes or regulations of the federal government of the State of California, the federal or state statutes or regulations shall take precedence.

19.04.170 Exemptions.

- A. The provisions of this Chapter shall not apply to:

- (1) Buildings which are temporary (such as construction trailers).
- (2) Building area which is not or is not intended to be conditioned space.
- (3) Any requirements of this Chapter which would impair the historic integrity of any building listed on a local, state or federal register of historic structures, as determined by the Chief Building Official and as regulated by the California Historic Building Code (Title 24, Part 8). In making such a determination, the Chief Building Official may require the submittal of an evaluation by an architectural historian or similar expert.

- B. Hardship or Infeasibility Exemption: If an applicant for a Covered Project believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this Chapter, the applicant may request an exemption as set forth below. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility.

- (1) Application: The applicant shall identify in writing the specific requirements of the Standards for Compliance that the project is unable to achieve and the circumstances that make it a hardship or infeasible for the project to comply with this Chapter. The applicant may not petition for relief from any requirement of the 2008 California Building Energy Efficiency Standards (Title 24, Part 6) of the California Building Code. Circumstances that constitute hardship or infeasibility shall include, but are not limited to, the following:

- i. There is a conflict between the provisions of the applicable green building rating system and the California Building Standards Code, other State code provisions, other requirements of this Title or conditions imposed on the project through a previously approved planning application;
- ii. There is a lack of commercially available green building materials and technologies to comply with the green building rating system;
- iii. That the cost of achieving compliance is disproportionate to the overall cost of the project;
- iv. That physical conditions of the project site make it impractical to incorporate necessary green building measures or achieve the Standards for Compliance;
- v. That compliance with certain requirements would impair the historic integrity of buildings listed on a local, state or federal list or

register of historic structures as regulated by the California Historic Building Code (Title 24, Part 8);

- (2) Granting of exemption: If the Chief Building Official determines that it is a hardship or infeasible for the applicant to fully meet the requirements of this Chapter and that granting the requested exemption will not cause the building to fail to comply with the 2008 California Building Energy Efficiency Standards (Title 24, Part 6) of the California Building Code, the Chief Building Official shall determine the maximum feasible threshold of compliance reasonably achievable for the project. In making this determination, the Chief Building Official shall consider whether alternate, practical means of achieving the objectives of this Chapter can be satisfied, such as reducing comparable energy use at an offsite location within the County. If an exemption is granted, the applicant shall be required to comply with this chapter in all other respects and shall be required to achieve the threshold of compliance determined to be achievable by the Chief Building Official.
- (3) Denial of exception: If the Chief Building Official determines that it is reasonably possible for the applicant to fully meet the requirements of this Chapter, the request shall be denied and the applicant shall be notified of the decision in writing. The project and compliance documentation shall be modified to comply with the Standards for Compliance.

Appeal: Any aggrieved applicant or person may appeal the determination of the Chief Building Official regarding the granting or denial of an exemption or compliance with any other provision of this Chapter. An appeal of a determination of the Chief Building Official shall be filed in writing and processed in accordance with the provisions of Chapter 22.114 of the Marin County Code.

**PROPOSED TEXT AMENDMENTS
MARIN COUNTY BUILDING CODE (TITLE 19)**

SECTION I Chapter 19.04 of the Marin County Code is hereby amended to read as follows:

19.04.100 Energy Efficiency Standards for Single Family Dwellings, Multi-Family Residential and Commercial Construction.

- A. Definitions. For the purposes of this section, the following definitions shall apply:
1. "Current Standards." The 2008 California Building Energy Efficiency Standards or subsequently adopted state energy standards, whichever is applicable at the time of the building permit application, including California Code of Regulations, Title 24, Parts 1 and 6.
 2. "Solar Photovoltaic Energy System." A photovoltaic solar collector or other photovoltaic solar energy device that has a primary purpose of providing for the collection and distribution of solar energy for the generation of alternating current rated peak electricity. The installation of any solar photovoltaic energy system must meet all installation criteria of the current edition of the California Electrical Code and the California Energy Commission *Guidebook Eligibility Criteria and Conditions for Incentives for Solar Energy Systems Senate Bill 1*.
 3. "Photovoltaic (PV) Credit." A TDV Energy credit that may be used to achieve compliance with the requirements of this section. This credit is available if the solar photovoltaic energy system is capable of generating electricity from sunlight, supplying the electricity directly to the building, and the system is connected, through a reversible meter, to the utility grid. The methodology used to calculate the energy equivalent to the photovoltaic credit shall be the CECPV Calculator, using the most recent version prior to the permit application date, which may be found at the following web site:
http://www.gosolarcalifornia.ca.gov/nshpcalculator/download_calculator.html
 4. "Alternative Proposed Design Credit." An energy credit for alternative energy system designs that may be used to achieve compliance with the requirements of this section subject to approval by the Chief Building Official and the Director of the Marin County Community Development Agency. Alternative energy system designs may include, but are not limited to, any renewable energy system which is not a solar photovoltaic system and any energy-efficiency measures not included in the Title 24 performance analysis which significantly exceed current building practice or applicable minimum state or federal efficiency standards. The permit applicant must submit calculations to document, explain and justify the amount of the credit claimed.
 5. "Net Zero Energy." A building that has a net annual Time Dependent Valued (TDV) Energy Consumption, as defined by Title 24 of the California Code of Regulations, of zero, accounting for both energy consumption and the use of on-site renewable energy production.
- B. Covered Projects. The provisions of this section shall apply to the following types of building projects for which a building permit is applied for and accepted

as complete by the Building and Safety Division after the effective date of this section:

1. New single family dwellings resulting in a total dwelling size of 500 square feet or greater of total conditioned floor area.
 2. Additions to single family dwellings resulting in a total dwelling size of 1,500 square feet or greater of total conditioned floor area and where Title 24 energy performance documentation is submitted which uses the Existing + Addition or Existing + Addition + Alteration calculation method.
 3. Substantial remodels, as defined in this code, to single family dwellings resulting in a total dwelling size of 1,500 square feet or greater of total conditioned floor area and where Title 24 energy performance documentation is submitted which uses the Existing + Alteration or Existing + Addition + Alteration calculation method. (For the purposes of this section, the terms "remodel" and "alteration" are synonymous.)
 4. New multi-family residential construction.
 5. New commercial construction resulting in 5,000 square feet or greater of total conditioned floor area.
- C. Exemptions. Affordable housing dwellings approved by the Agency Director are exempted from the requirements of this ordinance, but must comply with the 2008 California Building Energy Efficiency Standards (Title 24, Part 6) of the California Building Code.
- D. Compliance. A building permit subject to the provisions of this section will not be issued by the Building and Safety Division unless the energy compliance documentation submitted with the permit application meets the requirements of this section. A certificate of occupancy will not be granted until a Certificate of Field Verification and Diagnostic Testing (CF-4R) for the permitted project is submitted to the Building and Safety Division when applicable. A certificate of occupancy will not be granted unless the work authorized under a permit has been constructed in accordance with the approved plans, conditions of approvals and requirements of this section.
- E. General Requirements. All covered projects subject to the provisions of this section shall exceed the Current Standards using the performance approach by the percentage (%) indicated in the Compliance Table corresponding to the dwelling's resultant total conditioned floor area.

Residential Compliance Table	
Dwelling Size ¹ (Total Conditioned Floor Area)	Buildings Must Exceed the Current Standards by:
500 – 3,999 SF	15%
4,000 – 5,499 SF	20%
5,500 – 6,499 SF	30%
7,000+	<i>Net zero energy</i>

Note 1: All additions and/or substantial remodels in dwellings with a total conditioned floor area of 1,500 square feet or greater, and where compliance with the Title 24 Standards uses the Existing + Addition + Alteration performance method, shall meet the requirements of the Compliance Table.

Multi-Family Residential Compliance Table	
Building Size (Total Conditioned Floor Area)	Buildings Must Exceed the Current Standards by:
All	15%

Commercial Compliance Table	
Building Size (Total Conditioned Floor Area)	Buildings Must Exceed the Current Standards by:
5,000+ sq. ft.	15%

1. New single family dwellings subject to the provisions of this section shall meet both of the following:
 - a. Exceeding the Current Standards as specified in the Compliance Table, using the performance compliance approach; and,
 - b. Meeting all other provisions applicable to low-rise residential buildings contained in the Current Standards.

2. Additions and/or alterations to single family dwellings subject to the provisions of this section shall meet one of the following requirements:
 - a. The addition and /or alteration shall comply with subsection E.2.; or,
 - b. The energy efficiency of the existing building shall be improved so that the existing building plus the addition and/or alteration meet the requirements listed in the Compliance Table.

3. A building project may use the solar PV Credit and/or the Alternative Proposed Design Credit to meet the requirements of subsection E.1. if the

proposed building exceeds the Current Standards using the performance compliance approach by at least 15.0%.

4. In addition to the standard Title 24 report and when a permit applicant is applying for Solar PV Credit or an Alternative Proposed Design Credit, a special compliance and calculation form, which shall be available at the Community Development Agency, documenting compliance with the provisions of this section shall be submitted with the building permit application and included on all plan sets with the CF-1R.
 5. HERS field verification and diagnostic testing. All buildings, additions, and remodels subject to the provisions of this section shall be field verified, by a certified HERS rater when required by these Local Standards. Verification shall be in accordance with protocols established in the Residential Field Verification and Diagnostic Testing Regulations Manual. A CF-4R, when required by the Current Standards, shall be submitted to the Building and Safety Division to demonstrate compliance prior to issuance of a certificate of occupancy.
- F. Modifications. Whenever there are practical difficulties involved with carrying out the literal provisions of this Section; the Building Official, in consultation with the Community Development Agency Director, shall be authorized to grant modifications for individual cases, upon application by the owner or owner's representative, provided that the Building Official determine the requested modification is in compliance with the intent and purpose of this section.

19.04.110 Green Building Requirements.

Sections:

- 19.04.110 - Purpose
- 19.04.120 - Applicability
- 19.04.130 - Definitions
- 19.04.140 - Standards for Compliance
- 19.04.150 - Incentives for Compliance
- 19.04.160 - Administrative Procedures
- 19.04.170 - Exemptions

19.04.110 Purpose.

The purpose of this Chapter is to enhance the long-term public health and welfare by contributing to the overall reduction of greenhouse gas production and emissions and improving the environmental and economic health of the County through the efficient design, construction, operation, maintenance and deconstruction of buildings and site development by incorporating green building practices and materials. The green building provisions referenced in this Chapter are designed to achieve the following objectives:

1. Increase energy efficiency in buildings;
2. Encourage water and resource conservation;
3. Reduce waste generated by construction projects;
4. Reduce long-term building operating and maintenance costs; and
5. Improve indoor air quality and occupant health; and
6. Contribute to meeting the state and local commitments to reduce greenhouse gas production and emissions.

19.04.120 Applicability.

The provisions of this Chapter shall apply to all construction or development projects defined below as a "Covered Project."

19.04.130 Definitions.

For the purposes of interpreting this Chapter and the associated Standards for Compliance, the following terms are defined as follows. When the definitions below differ from those contained elsewhere in this Title, the provisions of this Chapter shall apply.

1. "Addition" means the addition of building square footage to an existing structure.
2. "BIG" means Build It Green, a non-profit organization which established and maintains the Green Point Rated system for evaluating and certifying residential green buildings and green building professionals.
3. "BPI" means the Building Performance Institute, a non-profit organization which provides training and certification of green building professionals.
4. "Building envelope" means the ensemble of exterior and demising partitions of a building and roof structure that enclose conditioned space.
5. "Compliance threshold" means the minimum number of points or rating level required to be achieved by a particular Covered Project as set forth by the Standards for Compliance outlined in Section 19.04.140.
6. "Conditioned space" means any area within a building or structure that is heated or cooled by any equipment.

7. "Covered project" means a development project for which one or more building permits are required for new construction or remodels as set forth by the Standards for Compliance outlined in Section 19.04.140.
8. "GBCI" means the Green Building Certification Institute, a non-profit organization which certifies green buildings and green building professionals under the LEED® rating system.
9. "Green building" means a comprehensive process of design and construction that employs techniques to increase the efficiency of resource use, including energy, water and building materials, while minimizing adverse impacts on human health and the natural environment.
10. "Green building checklist" means a checklist or rating sheet used for calculating a green building rating.
11. "Green building rating system" means a standardized rating system providing specific criteria to determine the level of compliance of building projects as set forth by the Standards for Compliance outlined in 19.04.140.
12. "GreenPoint Rated" means a residential building certified as complying with the green building rating systems developed by the Build It Green organization.
13. "GreenPoint Rater" means an individual certified by Build It Green as capable of evaluating and rating residential construction projects for compliance with the GreenPoint Rated green building rating systems.
14. "HERS" means the Home Energy Rating System adopted by the California Energy Commission.
15. "LEED®" means the "Leadership in Energy and Environmental Design" green building rating system developed by the U.S. Green Building Council.
16. "LEED® AP" means an individual who has been certified a LEED® Accredited Professional by the U.S. Green Building Council or the Green Building Certification Institute as capable of evaluating and rating construction projects for compliance with the LEED® green building rating systems.
17. "Net Zero Energy" means a building that has a net annual Time Dependent Valued (TDV) Energy Consumption, as defined by Title 24 of the California Code of Regulations, of zero, accounting for both energy consumption and the use of on-site renewable energy production.
18. "New construction" means the construction of a new or replacement residential dwelling unit or a new or expanded commercial building.
19. "Qualified green building rater" means an individual who has been trained and certified as a LEED® AP, GreenPoint Rater or has similar qualifications and certifications if acceptable to the Chief Building Official.
20. "Renovation" means any remodeling, modification or tenant improvement to an existing building that includes replacement or alteration of at least two of the following: heating/ventilating/air conditioning system, building envelope, hot water system or lighting system, but excluding improvements and project valuation related to seismic or disabled access, building replacement due to catastrophic loss due to flood or earthquake damage or installation of renewable energy systems. Renovation shall include any addition of conditioned space to an existing dwelling unit.

21. "USGBC" means the U.S. Green Building Council, a non-profit organization which established and maintains the LEED® rating systems for evaluating and certifying residential green buildings and green building professionals.

19.04.140 Standards for Compliance.

The Marin County Green Building Requirements define which projects shall be deemed to be "Covered Projects" within the meaning of this Chapter, and establishing "Compliance Thresholds" applicable to Covered Projects.

- A. All Covered Projects shall comply with the Standards for Compliance which shall include, but not be limited to, the following:
 - (1) The types and sizes of projects subject to regulation (Covered Projects);
 - (2) The green building rating system(s) applicable to various types of Covered Projects;
 - (3) Minimum compliance thresholds for various types of Covered Projects; and
 - (4) The methods for verification of compliance with these regulations.
- B. Cumulative new construction or remodels over any one-year period shall be considered as a single Covered Project, and subject to the highest compliance threshold based on the cumulative project size or valuation.
- C. The Chief Building Official shall determine the appropriate project valuation based on the cost of similar improvements, and may request substantiating documentation from the applicant. Where Compliance Thresholds contain project size ranges expressed as both building square footage and project valuation, the intent is to base project requirements upon the project valuation range. However the Chief Building Official shall have the authority to determine whether the building square footage or valuation range most accurately reflects the scope of the proposed project for purposes of determining the required minimum Compliance Threshold.
- D. The Chief Building Official may determine that an alternative green building rating system may be used to determine project compliance, where it can be demonstrated that the alternative rating system is as stringent as or greater in terms of reduced energy and resource use and improved interior air quality than that normally required by the Standards for Compliance.
- E. Mixed use (residential and commercial) projects must comply either with the applicable Covered Project requirements for the respective residential and commercial portions of the project, or may propose to utilize a mixed use rating system, subject to approval by the Chief Building Official.
- F. The cost of reviewing any proposals requesting the use of alternate green building rating systems or requests for exemptions including, but not limited to, the cost of the County of hiring a consultant to review the proposal, shall be borne by the applicant.
- G. All buildings submitted for permit must meet all applicable requirements of the 2008 Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6, or subsequently adopted state energy standards.
- H. The applicable green building rating system shall be that which is most recently adopted by Build It Green or the U.S. Green Building Council. The green building rating system in effect at the time of building permit submittal shall be that which is applicable to the development project throughout the project construction.

19.04.150 Incentives for Compliance.

In addition to the required standards for compliance, the Board of Supervisors may establish by resolution financial or application processing incentives and/or award or recognition programs to encourage higher levels of green building compliance for a project.

19.04.160 Administrative Procedures.

The procedures for compliance with the provisions of this Chapter shall include, but not be limited to, the following:

- A. Project design: Applicants for a Covered Project are strongly encouraged to involve a qualified green building rater in the initial design phases of the project in advance of submittal of an application to determine applicable green building compliance thresholds and the most cost effective and appropriate means of achieving compliance.
- B. Planning applications: If a discretionary planning application is required for a Covered Project, applicants should be prepared to identify expected green building measures to be included in the project to achieve the compliance thresholds. Applicants should identify any anticipated difficulties in achieving compliance and any exemptions from the requirements of this Chapter that may be requested.
- C. Building plan check review: Upon submittal of an application for a building permit, building plans for any Covered Project shall include a green building program description and completed checklist. The checklist shall be incorporated onto a separate full-sized plan sheet included with the building plans. A qualified green building rater shall provide evidence that the project, as indicated by the project plans and green building program description, will achieve the Standards for Compliance outlined in Section 19.04.140 prior to issuance of a building permit.
- D. Changes during construction: During the construction process, alternate green building measures may be substituted, provided that the qualified green building rater provides documentation of the proposed change and the project's continued ability to achieve the Standards for Compliance to the Chief Building Official.
- E. Final building inspection: Prior to final building inspection and occupancy for any Covered Project, a qualified green building rater shall provide evidence that project construction has achieved the required compliance set forth in the Standards for Compliance outlined in Section 19.04.140. The Chief Building Official shall review the documentation submitted by the applicant, and determine whether the project has achieved the compliance threshold as set forth in the Standards for Compliance outlined in Section 19.04.140. Where subsequent certification of the building is required by the Standards for Compliance, the Chief Building Official shall also determine whether the applicant has demonstrated that such certification is in process and will be achieved not later than one year after approval of final building inspection. If the Chief Building Official determines that the applicant has met these requirements, the final building inspection may proceed.
- F. Post final inspection requirement: Where certification of the building is required by the Standards for Compliance, and such certification is only available subsequent to occupancy of the completed building, the applicant shall provide documentation of such certification within one year of the date of the final building inspection for the project. Failure to provide evidence of this certification

within this timeframe, or within an alternate timeframe as determined by the Chief Building Official, will result in a determination that the Covered Project is not in compliance with the requirements of this Chapter.

- G. Conflict with other laws: The provisions of this Chapter are intended to be in addition to and not in conflict with other laws, regulations and ordinances relating to building construction and site development. If any provision of this Chapter conflicts with any duly adopted and valid statutes or regulations of the federal government of the State of California, the federal or state statutes or regulations shall take precedence.

19.04.170 Exemptions.

A. The provisions of this Chapter shall not apply to:

- (1) Buildings which are temporary (such as construction trailers).
- (2) Building area which is not or is not intended to be conditioned space.
- (3) Any requirements of this Chapter which would impair the historic integrity of any building listed on a local, state or federal register of historic structures, as determined by the Chief Building Official and as regulated by the California Historic Building Code (Title 24, Part 8). In making such a determination, the Chief Building Official may require the submittal of an evaluation by an architectural historian or similar expert.

B. Hardship or Infeasibility Exemption: If an applicant for a Covered Project believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this Chapter, the applicant may request an exemption as set forth below. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility.

- (1) Application: The applicant shall identify in writing the specific requirements of the Standards for Compliance that the project is unable to achieve and the circumstances that make it a hardship or infeasible for the project to comply with this Chapter. The applicant may not petition for relief from any requirement of the 2008 California Building Energy Efficiency Standards (Title 24, Part 6) of the California Building Code.

Circumstances that constitute hardship or infeasibility shall include, but are not limited to, the following:

- i. There is a conflict between the provisions of the applicable green building rating system and the California Building Standards Code, other State code provisions, other requirements of this Title or conditions imposed on the project through a previously approved planning application;
 - ii. There is a lack of commercially available green building materials and technologies to comply with the green building rating system;
 - iii. That the cost of achieving compliance is disproportionate to the overall cost of the project;
 - iv. That physical conditions of the project site make it impractical to incorporate necessary green building measures or achieve the Standards for Compliance;
 - v. That compliance with certain requirements would impair the historic integrity of buildings listed on a local, state or federal list or register of historic structures as regulated by the California Historic Building Code (Title 24, Part 8);
- (2) Granting of exemption: If the Chief Building Official determines that it is a hardship or infeasible for the applicant to fully meet the requirements of

this Chapter and that granting the requested exemption will not cause the building to fail to comply with the 2008 California Building Energy Efficiency Standards (Title 24, Part 6) of the California Building Code, the Chief Building Official shall determine the maximum feasible threshold of compliance reasonably achievable for the project. In making this determination, the Chief Building Official shall consider whether alternate, practical means of achieving the objectives of this Chapter can be satisfied, such as reducing comparable energy use at an offsite location within the County. If an exemption is granted, the applicant shall be required to comply with this chapter in all other respects and shall be required to achieve the threshold of compliance determined to be achievable by the Chief Building Official.

- (3) Denial of exception: If the Chief Building Official determines that it is reasonably possible for the applicant to fully meet the requirements of this Chapter, the request shall be denied and the applicant shall be notified of the decision in writing. The project and compliance documentation shall be modified to comply with the Standards for Compliance.

Appeal: Any aggrieved applicant or person may appeal the determination of the Chief Building Official regarding the granting or denial of an exemption or compliance with any other provision of this Chapter. An appeal of a determination of the Chief Building Official shall be filed in writing and processed in accordance with the provisions of Chapter 22.114 of the Marin County Code.