

DOCKETED

Docket Number:	17-BSTD-02
Project Title:	2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking
TN #:	222484
Document Title:	2-6-18 Presentation on Proposed 2019 CALGreen Code
Description:	Presentation given by Ingrid Neumann at the 2-6-18 Commissioner Hearing on the proposed 2019 CALGreen Code.
Filer:	Adrian Ownby
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	2/8/2018 11:16:25 AM
Docketed Date:	2/8/2018



Title 24 Part 11

California Green Building Standards

Ingrid Neumann

Building Standards Office

Efficiency Division

Rulemaking Workshop

Rosenfeld Hearing Room

February 6, 2018



Appendix A4

Residential Voluntary Measures

- Section A4.203.1.1.1
Performance Approach for Newly Constructed
 - based on **target EDR scores**
(no longer “Percent better than” mandatory Part 6)

Mandatory Title 24 Part 6

Voluntary Part 11

**Mandatory
Energy Efficiency Targets
Title 24 Part 6**

**Voluntary
Energy Efficiency
Title 24 Part 11**



Appendix A4

Residential Voluntary Measures

- **A4.203.1.3.1 Tier 1.**
 - **meet or be less** than a target Energy Design Rating (**EDR**), based on climate zone.
 - Measures considered:
 - energy efficiency measures (e.g. triple pane windows)
 - Demand Management (e.g. load following)
 - on-site battery or thermal storage





Appendix A4 Residential Voluntary Measures A4.203.1.3.1 Tier 1

Modeled using:

- PV oversizing factors of 1.0 for mixed fuel and 1.1 for all-electric
- TOU battery controls

CZ	Mixed Fuel	All-Electric
1	23	36
2	12	16
3	10	14
4	8	12
5	10	16
6	10	12
7	5	7
8	10	10
9	13	13
10	10	11
11	11	12
12	12	13
13	11	13
14	15	16
15	11	8
16	22	39





Appendix A4

Residential Voluntary Measures

- **A4.203.1.3.2 Tier 2.**
 - **meet or be less than** a target Energy Design Rating (**EDR**), based on climate zone.
 - Paths considered:
 - electrifying space and water heating
 - advanced electric battery controls
 - modest oversizing of the photovoltaic system



Appendix A4 Residential Voluntary Measures A4.203.1.3.2 Tier 2

Modeled using:

- PV oversizing factors up to 1.4 for mixed fuel
- PV sized to offset annual kWh for all-electric
- TOU battery controls

CZ	Mixed Fuel	All-Electric
1	13	0
2	5	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	5	0
15	0	7
16	14	10





Appendix A4

Residential Voluntary Measures

Required Prerequisites:

- **A4.203.1.1.2 Quality Insulation Installation (QII)**

AND Choose ONE of the Prerequisites below:

- **A4.203.1.2.1 Roof deck insulation, or ducts in conditioned space**
- **A4.203.1.2.2 High Performance Walls (HPW)**
- **A4.203.1.2.3 HERS-Verified Compact Hot Water Distribution System (CHWDS-H) with Drain Water Heat Recovery (DWHR-H)**



Appendix A4

Residential Voluntary Measures

- Section A4.204 Performance Approach for Additions has been struck



Appendix A5

Nonresidential Voluntary Measures

- Section A5.203, Performance Approach
 - Retain the “**Percent better than**” mandatory language
 - Target Percentages continue to vary depending on whether lighting and/or mechanical systems are included



Appendix A5

Nonresidential Voluntary Measures

Choose **ONE** of the following Prerequisites for **Tier 1** and **TWO** for **Tier 2**:

- **A5.203.1.1.1 Outdoor lighting**
- **A5.203.1.1.2 Service water heating in restaurants**
- **A5.203.1.1.3 Warehouse Dock Seal Doors**
- **A5.203.1.1.4 Daylight Redirecting Devices**
- **A5.203.1.1.5 Exhaust Air Heat Recovery**
- **A5.203.1.1.6 Triple Bottom Line Analysis**



Questions?

Building Energy Efficiency Program 2019 Update

<http://www.energy.ca.gov/title24/2019standards/rulemaking/>

Comments should be submitted to

DOCKET NO. 17-BSTD-03 by 5:00pm March 5, 2018

[https://efiling.energy.ca.gov/EComment/EComment.aspx?](https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-03)

[docketnumber=17-BSTD-03](https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-03)