

DOCKETED

Docket Number:	17-BSTD-01
Project Title:	2019 Building Energy Efficiency Standards PreRulemaking
TN #:	221449-3
Document Title:	10-4-17 Subchapter 1 and 2 Presentation
Description:	Presentation by Gabriel Taylor made at the 10-4-17 Staff Workshop on the proposed 2019 Standards.
Filer:	Adrian Ownby
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	10/9/2017 1:47:10 PM
Docketed Date:	10/9/2017



2019 Building Energy Efficiency Standards

SUBCHAPTER 1

Section 100.0

Gabriel Taylor, P.E.

gabriel.taylor@energy.ca.gov

October 4, 2017

Pre Rulemaking Workshop



2019 Building Standards for New Licensed Healthcare Facilities





Scope & Definitions (§100)

- **Add Occupancy Group I**
 - Excluding I-1, I-3, and I-4
- **Define “Healthcare Facility”**

HEALTHCARE FACILITY is any building or portion thereof licensed pursuant to California Health and Safety Code Division 2, Chapter 1, §1204 or Chapter 2, §1250.

- **Remove old definitions**



Title 24, Part 6: Building Energy Efficiency Standards

§100 Scope & Definitions

§110 Systems & Equipment

§120 Design & Installation

§130 Lighting & Electrical

§140 Performance & Prescriptive

§141 Additions & Alterations

EXCEPTIONS in Green





Systems & Equipment (§110) Exceptions

110.1 Appliances

110.2 HVAC Equipment

110.3 Water Heating

110.4 Pool & Spa

110.5 Pilot Lights

110.6 Fenestration

110.7 Air Leakage

110.8 Insulation & Roofing

110.9 Lighting Controls

110.10 Solar Ready

110.11 Electrical
Equipment



Design & Installation (§120) Exceptions

120.1 Ventilation

120.2 HVAC Systems

120.3 Pipe Insulation

120.4 Ducts & Plenums

120.5 Mechanical

120.6 Covered Processes

120.7 Insulation

120.8 Commissioning

120.9 Boilers

120.10 Demand
Management



Lighting & Electrical (§130) Exceptions

130.1 Indoor Controls

130.2 Outdoor Controls

130.3 Sign Controls

130.4 Acceptance Testing

130.5 Power Distribution



Lighting & Electrical (§130) Exceptions

- **Psychiatric and Secure Areas**
- **Auto Shut-off**
- **Outdoor Lit Signs**





Performance & Prescriptive (§140)

140.0 Performance &
Prescriptive Compliance

140.1 Performance:
Energy Budgets

140.2 Prescriptive
Approach

140.3 Prescriptive:
Building Envelopes

140.4 Prescriptive: HVAC

140.5 Prescriptive:
Water Heating

140.6 Prescriptive:
Indoor Lighting

140.7 Prescriptive:
Outdoor Lighting

140.8 Prescriptive: Signs

140.9 Prescriptive:
Covered Processes



Additions & Alterations (§141)

- **CORRECTION:**
Exceptions for Existing Facilities

SECTION 141.0 – ADDITIONS, ALTERATIONS, AND REPAIRS TO EXISTING NONRESIDENTIAL, HIGH-RISE RESIDENTIAL, AND HOTEL/MOTEL BUILDINGS, TO EXISTING OUTDOOR LIGHTING, AND TO INTERNALLY AND EXTERNALLY ILLUMINATED SIGNS

Additions, alterations, and repairs to existing nonresidential, high-rise residential, and hotel/motel buildings, existing outdoor lighting for these occupancies, and internally and externally illuminated signs, shall meet the requirements specified in Sections 100.0 through 130.0 and Sections 100.1 through 130.5 that are applicable to the building project, and either the performance compliance approach (energy budgets) in Section 141.0(a)2 (for additions) or 141.0(b)3 (for alterations), or the prescriptive compliance approach in Section 141.0(a)1 (for additions) or 141.0(b)2 (for alterations), for the Climate Zone in which the building is located. Climate zones are shown in FIGURE 100.1-A.



CALIFORNIA ENERGY COMMISSION

Questions & Comments





2019 Building Energy Efficiency Standards

SUBCHAPTER 2

Section 110.0

**ALL OCCUPANCIES—MANDATORY REQUIREMENTS
FOR THE MANUFACTURE, CONSTRUCTION AND
INSTALLATION OF SYSTEMS, EQUIPMENT AND
BUILDING COMPONENTS**



Clean-Up (§110)

- **110.2** Update of Minimum Equipment Efficiency
 - Align with 2016 ASHRAE 90.1
- **110.3** Update Lavatory Water Temperature
 - Match CA Plumbing Code for lavatory sinks
- **110.9** Moving Lighting Control Specs from Title 20
- **110.10** Redrafting Solar Ready Exceptions
 - Readability & Clarification
- **110.12** Consolidate Demand Response
 - New Section 110.12



§110.12 – MANDATORY REQUIREMENTS FOR DEMAND MANAGEMENT

- OpenADR 2.0a or OpenADR 2.0b





KEY WEB-LINK

2019 Title 24 Utility-Sponsored Stakeholder

<http://title24stakeholders.com/>

Building Energy Efficiency Program

<http://www.energy.ca.gov/title24/>

Comments to be submitted to

<https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-01>



Standards Contact Information – Energy Commission

Mazi Shirakh, PE

ZNE Technical Lead & Advisor to the 2019 Building Standard Staff.

Mazi.Shirakh@energy.ca.gov

916-654-3839

Payam Bozorgchami, PE

Project Manager, 2019 Building Standards

Payam.Bozorgchami@energy.ca.gov

916-654-4618

Larry Froess, PE

CBECC Software Lead

Larry.Froess@energy.ca.gov

916-654-4525

Peter Strait

Supervisor, Building Standards Development

Peter.Strait@energy.ca.gov

916-654-2817

Christopher Meyer

Manager, Building Standards Office

Christopher.Meyer@energy.ca.gov

916-654-4052

Todd Ferris

Supervisor, Software Tools Development

Todd.Ferris@energy.ca.gov

916-654-4072





Building Standards Office Staff – Energy Commission

Mark Alatorre, P.E.

Mechanical / HVAC (nonresidential)

Mark.Alatorre@energy.ca.gov

916-654-4642

Thao Chau

Lighting

Thao.Chau@energy.ca.gov

916-654-4168

Simon Lee, P.E.

Lighting

Simon.Lee@energy.ca.gov

916-654-4525

Jeff Miller, P.E.

Mechanical / HVAC (residential)

Jeff.Miller@energy.ca.gov

916-651-6182

Michael Shewmaker

Envelope

Michael.Shewmaker@energy.ca.gov

916-653-1584





Building Standards Office Staff – Energy Commission

Gabriel Taylor, P.E.

Healthcare Facility Integration/ Demand
Response

Gabriel.Taylor@energy.ca.gov

916-654-4482

Danny Tam

Plumbing/Water Heating/ Solar PV

Danny.Tam@energy.ca.gov

916-654-8435

Ingrid Neumann

Local Ordinances, Cal Green

Ingrid.neumann@energy.ca.gov

916-651-1461





CALIFORNIA ENERGY COMMISSION

Questions & Comments

