

DOCKETED	
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Description:	N/A
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Item 4: Certification of EIR & Adoption of the 2022 Energy Code

August 11, 2021 Business Meeting

Will Vicent, Manager
Building Standards Office, Efficiency Division



Energy Code Benefits

- Saves money on utility bills
- Improves consumer protection
- Supports climate action at least-cost
- Enables load flexibility and a cleaner grid
- Provides compliance flexibility



Energy Code Environmental Benefit

Reduced Statewide Emissions



Source: CEC Impact Analysis 2005, 2008, 2013, 2016, 2019, 2022



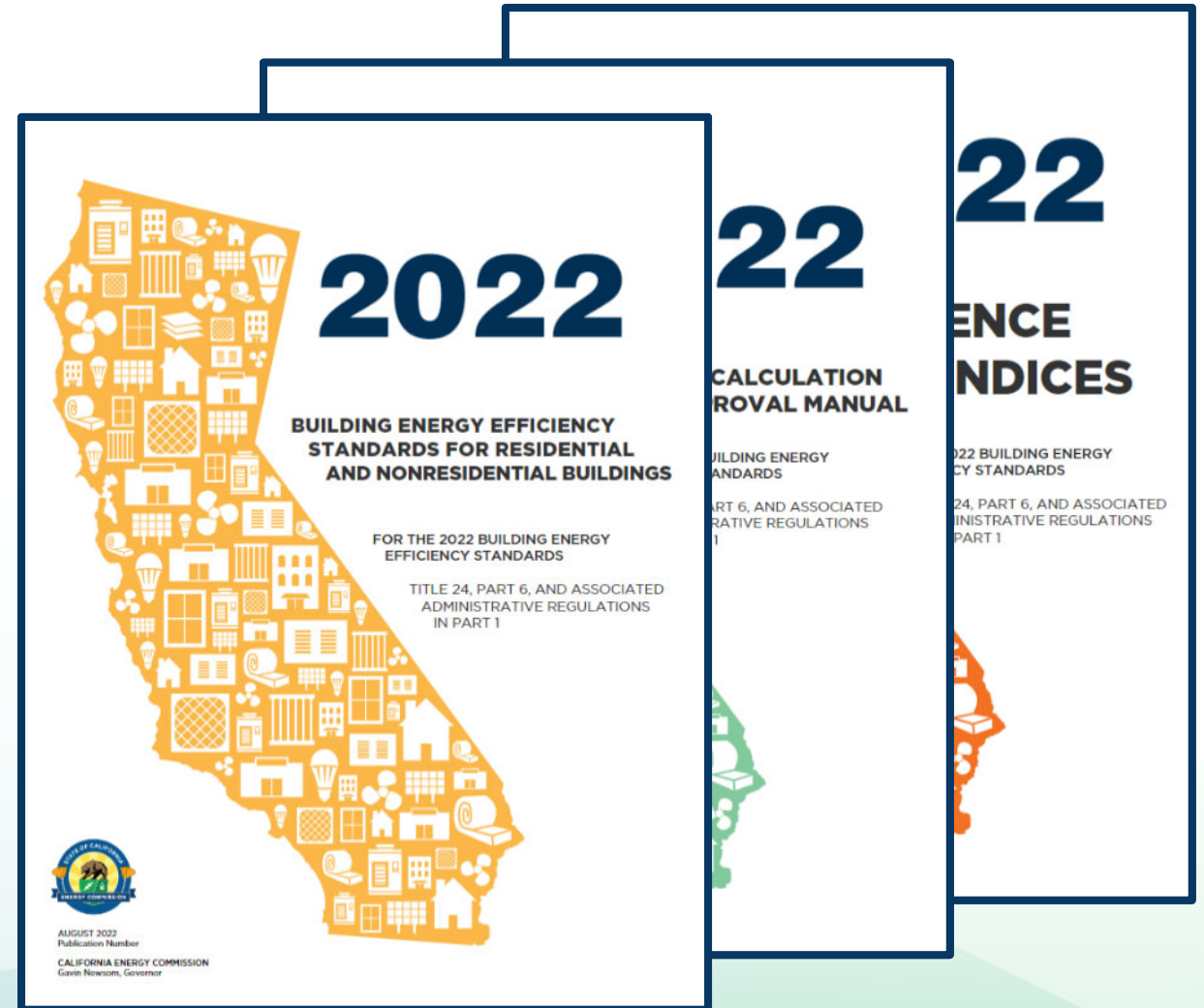
2022 Energy Code Process

	Part 6	EIR
Public Workshops (x45)	4/24/19 – 1/26/21	4/9/21
Start 45-Day Public Comment	5/7/21	5/20/21
Start 15-Day Public Comment	7/14/21	NA
Energy Commission Adoption	8/11/21	8/11/21
Effective Date	1/1/23	NA



2022 Energy Code Highlights

- Heat pump baselines
- Solar + storage baselines
- Electric-ready requirements
- Lighting
- Multifamily restructuring
- Ventilation requirements





Heat Pumps

Electric water and space heating

- Increases efficiency
- Reduces GHGs
- Encourages load flexibility

2022 Energy Code

- Single-family: water or space heating standard
- Multifamily: space heating standard
- Commercial: standards for schools, offices, banks, libraries, retail, grocery





Solar Energy & Battery Storage

2022 solar + battery standards

- High-rise multifamily
- Hotel-motel, tenant space
- Office, medical office, clinic
- Retail, grocery stores
- Restaurants
- Schools, civic spaces
- Solar + battery sized modestly





Residential Electric-Ready



- Dedicated electrical circuits for single-family and multifamily: space heating, cooking, clothes drying & water heating
- Energy storage system-ready requirements for single-family, including minimum electric panel busbar rating of 225 amps



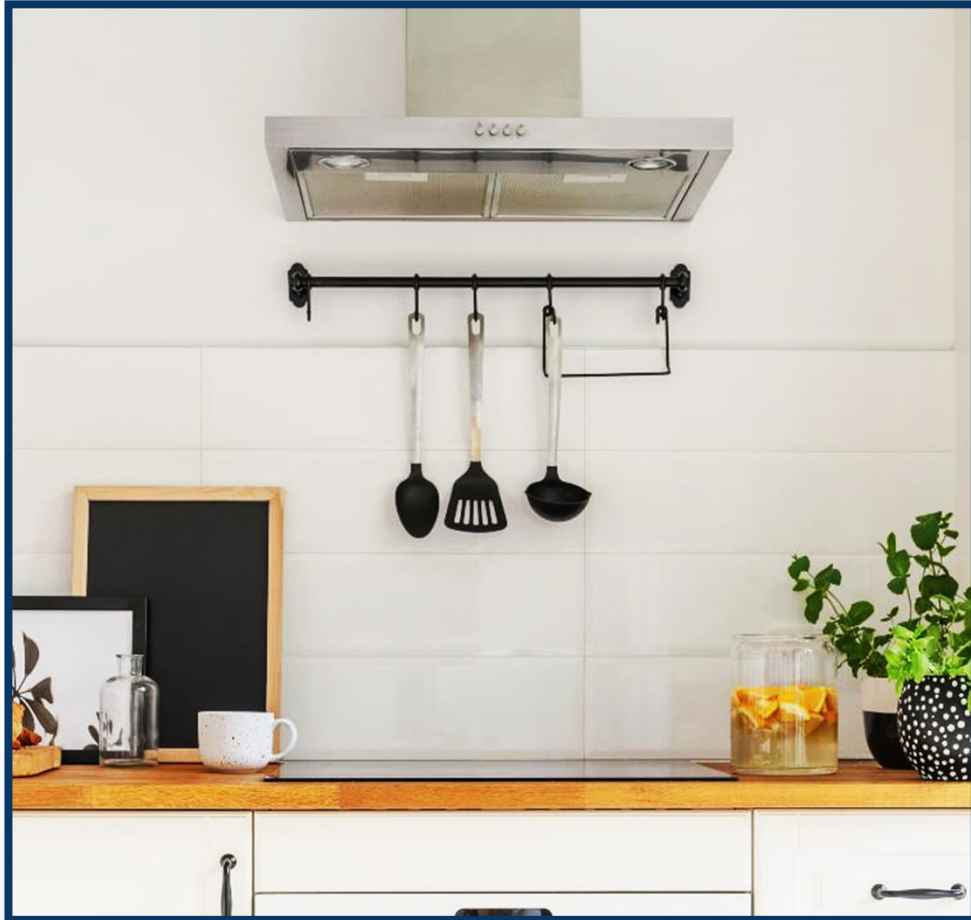
Lighting

- Improves clarity and consistency
- Default outdoor lighting zones
- Updates nonresidential lighting power allowance tables
- Removes residential lumen maintenance test from Joint Appendix 8





Indoor Air Quality & Air Distribution



- Recognizes differences in pollutants created by natural gas and electric cooking, as well as role of indoor air volume in pollution concentrations
- Adds duct sealing requirements for central shaft ventilation systems use
- Relaxes insulation requirements for ducts in conditioned space



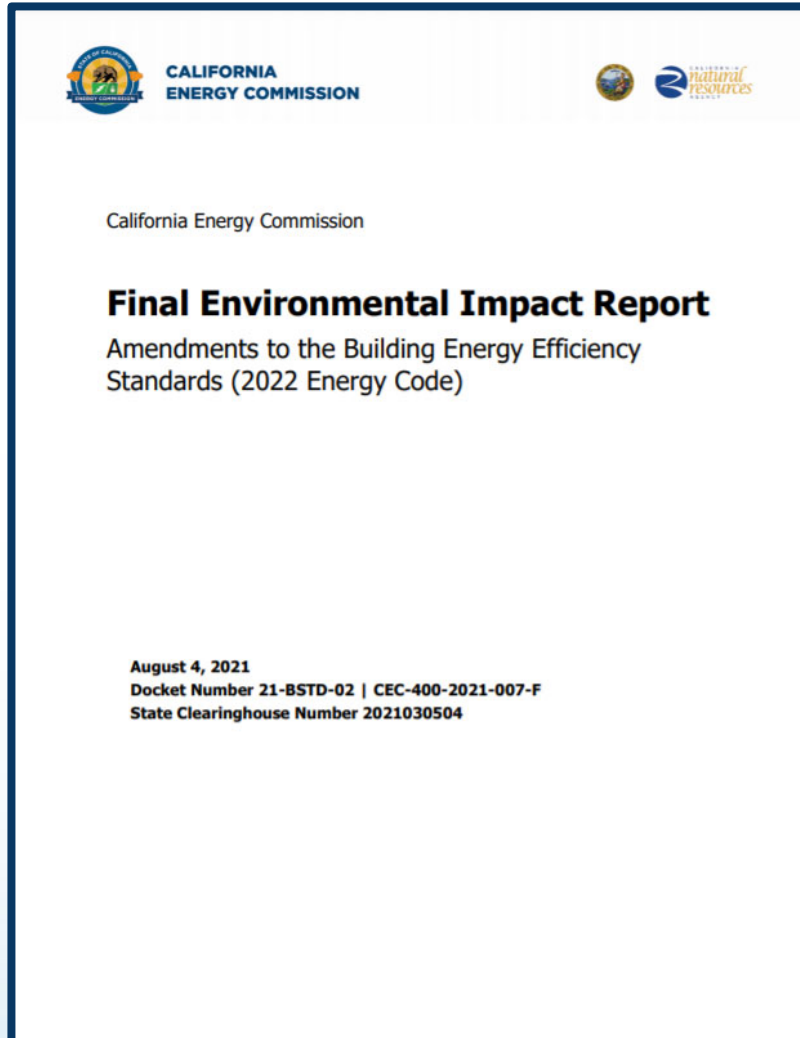
Multifamily Restructuring

- Consolidates multifamily provisions into a set of dedicated chapters
- Compliance software will follow





Environmental Impact Report



- Included public process
- Received 6 comment letters:
 - 2 in support
 - 1 about housing production
 - 1 stated draft EIR was deficient
 - 2 not directed at draft EIR
- Published Final EIR on 8/4/2021
- Complied with CEQA



EIR Process

- CEC is “lead agency”
- CEC must certify Final EIR:
 - 1) Completed in compliance with CEQA
 - 2) Reviewed and considered prior to approving project
 - 3) Reflects lead agency’s independent judgment and analysis



30-Year Environmental Benefit

2022 Measure Categories	% Total	Emissions Savings (MTCO ₂ e)	Emissions Benefit (\$)
Single Family Heat Pump Standard	5.38%	729,698	\$115,564,424
Multifamily Heat Pump Standard	0.49%	71,639	\$11,345,665
Nonresidential Heat Pump Standard	1.50%	214,917	\$34,036,994
Multifamily PV + Battery	2.32%	202,702	\$32,102,422
Nonresidential PV + Battery	10.04%	876,231	\$138,771,230
Multifamily Energy Efficiency	0.82%	89,215	\$14,129,309
Nonresidential Energy Efficiency	8.03%	768,793	\$121,755,977
Nonresidential Alterations	34.65%	3,435,740	\$544,127,893
Single Family Alterations	10.86%	977,604	\$154,825,984
Covered Processes	25.92%	2,480,724	\$392,879,357
TOTALS	100%	9,847,264	\$1,559,539,255



Staff Recommendations

1. Certify Final EIR in accordance with CEQA
2. Adopt 2022 Energy Code



Thank You

Office of Chief Counsel	Efficiency Division	Siting, Transmission & Env. Protection	Energy Assessments	
Jared Babula	Haider Alhabibi	Jeff Miller	Abdel-Karim Abulaban	Nicholas Janusch
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Matt Chalmers	Amber Beck	Bill Pennington	Thomas Gates	Angela Tanghetti
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