

DOCKETED

Docket Number:	20-FDAS-01
Project Title:	Flexible Demand Appliance Standards
TN #:	236074
Document Title:	Presentation - December 14, 2020 SB 49 Flexible Demand Appliance Standards pre-rulemaking workshop
Description:	Staff Presentation from December 14, 2020 Lead Commissioner Workshop on Senate Bill 49 Flexible Demand Appliance Standards
Filer:	Todd Ferris
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	12/21/2020 9:26:38 AM
Docketed Date:	12/21/2020



California Energy Commission

Senate Bill 49 Lead Commissioner Workshop

Flexible Demand Standards Unit, Appliances Office, Efficiency Division

December 14, 2020



Keep California Healthy



Wash



Clean



Cover



6 Feet



[covid19.ca.gov](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Keep-California-Healthy.aspx)



Remote Compliance

Lead Commissioner Workshop held remotely, consistent with **Executive Orders N-25-20 and N-29-20** and the recommendations from **California Department of Public Health** to encourage physical distancing to slow spread of COVID-19.

For remote participation instructions go to **CEC's Flexible Demand webpage:**

<https://www.energy.ca.gov/proceedings/energy-commission-proceedings/flexible-demand-appliances>

Zoom: Technical support is available at <https://support.zoom.us/>

via Zoom's chatbot feature, located in the lower right corner of the screen or at (888) 799-9666 ext. 2,

Or you may contact the Public Advisor's Office via email or phone.

publicadvisor@energy.ca.gov, by phone at (916) 654-4489, or toll free at (800) 822-6228.



Meeting Guidelines

- **Two public comment periods** – before lunch and end of day
- Comments **limited to 3 minutes** per person and **1 person per organization**
- Provide your **name and affiliation** when speaking
- All **lines are muted**, to comment – **raise hand to speak**
 - **Online: Raise your hand**, host will give you the ability to speak, then caller must push unmute
 - **Cell phone: Raise your hand by pushing *9**, host will give you the ability to speak, then **caller must push *6 to mute and unmute**
- For clarifying questions, **type your question in the Q&A section**



Morning Agenda

Time	Topic	Presenter
9:00 AM	Opening Comments	Commissioner Andrew McAllister, Ph.D., CEC
9:15 AM	Flexible Demand's Connection to CA State Energy Policy	Michael Sokol, CEC
9:30 AM	Value of Flexible Demand Standards to Consumers and Grid	Severin Borenstein, Ph.D., Energy Institute at Haas, UC, Berkeley
9:50 AM	Flexible Demand Shift Resource Through 2030	Mary Ann Piette, Lawrence Berkeley National Labs
10:10 AM	Supporting Flexible Resources at the CPUC	Nate Kinsey, CPUC
10:30 AM	Panel 1: Criteria for Selection of Candidate Appliances	Moderator: Sean Steffensen, CEC
12:00 PM	Public Comments	Lead: Nicholas Struven, CEC
12:30 PM	Lunch	



Afternoon Agenda

Time	Topic	Presenter
1:30 PM	Panel 2: Communication Technologies and Cybersecurity	Moderator: Nicholas Struven, CEC
2:35 PM	Panel 3: Consumer Perspectives and Equity Considerations	Moderator: Messay Betru, CEC
3:40 PM	Public Comments	Program Lead: Nicholas Struven, CEC
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Agenda and Opening Comments

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Flexible Demand's Connection to CA State Energy Policy

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Flexible Demand's Connection to CA State Energy Policy

Michael J. Sokol

Deputy Director, Efficiency Division, California Energy Commission



Goals for this Workshop

- Welcome!
- Introduce Senate Bill 49 and flexible demand appliance standards
- Gather your ideas, concerns, solutions
- Written comments due **by 5:00 PM on January 4, 2021**





Protecting Our California Way of Life



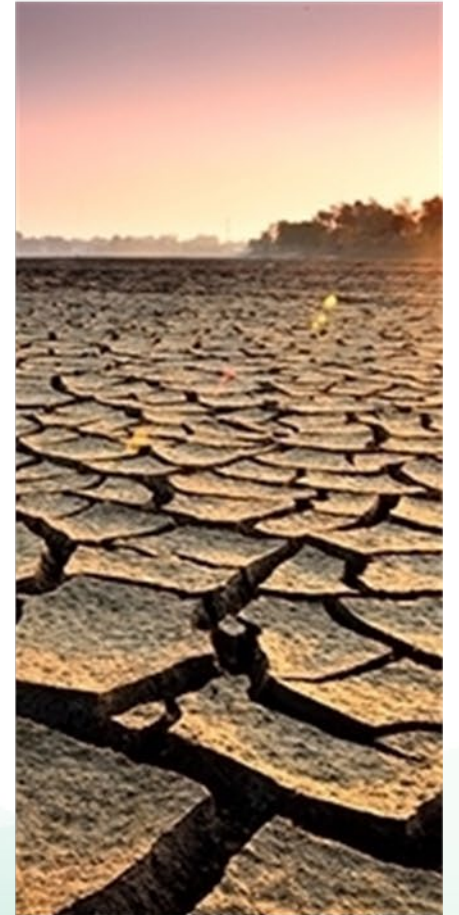
The hots are getting hotter.

The dries are getting drier.

*The evidence is all around
us -*

climate change is REAL.

Governor Gavin Newsom





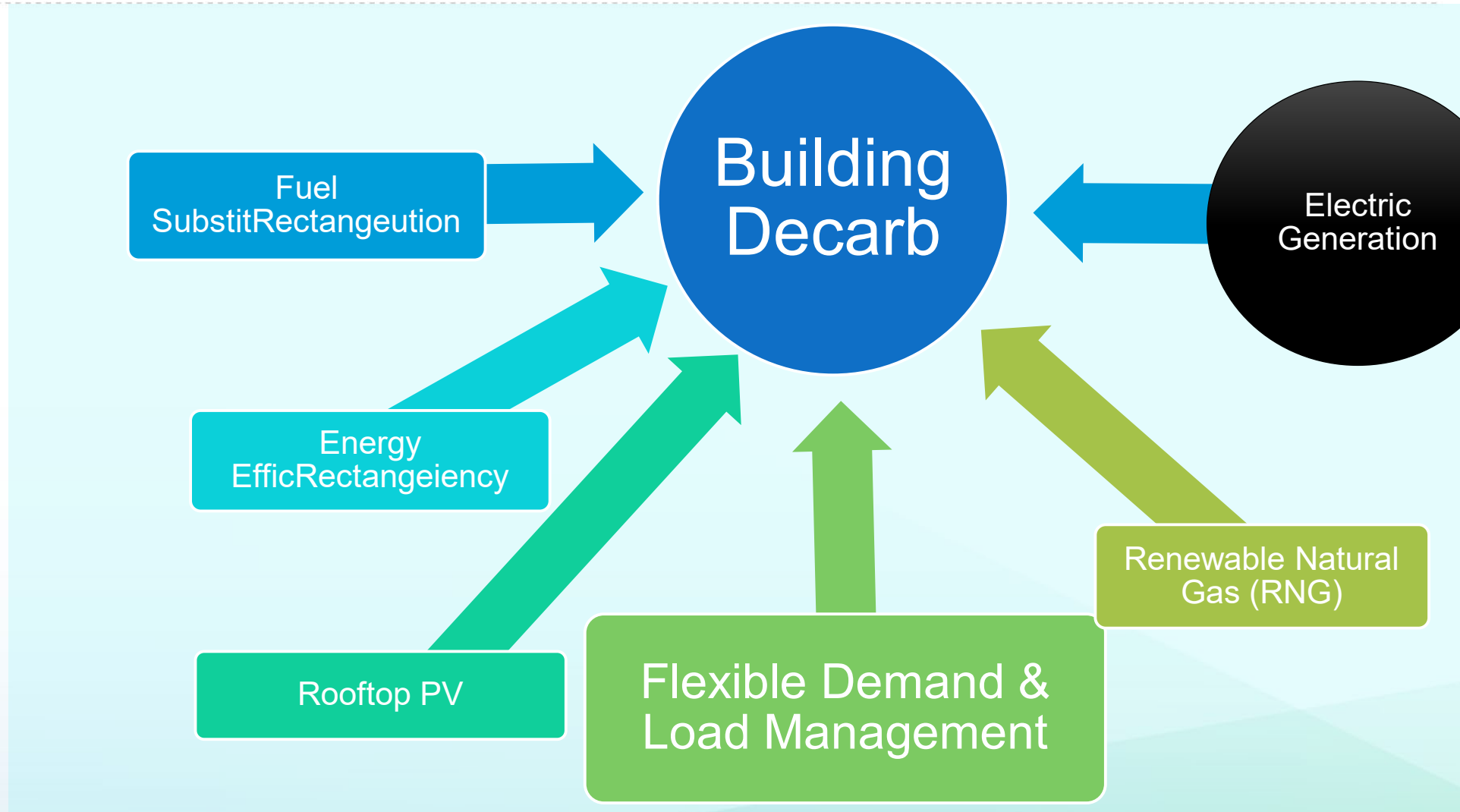
Benefits to California

- Flexible demand appliance standards will play an important role in achieving:
 - California's ambitious goals to decarbonize the economy
 - Consumer savings on electricity bills
 - Supports electricity grid reliability
 - Improved air quality





Flexible Demand Context

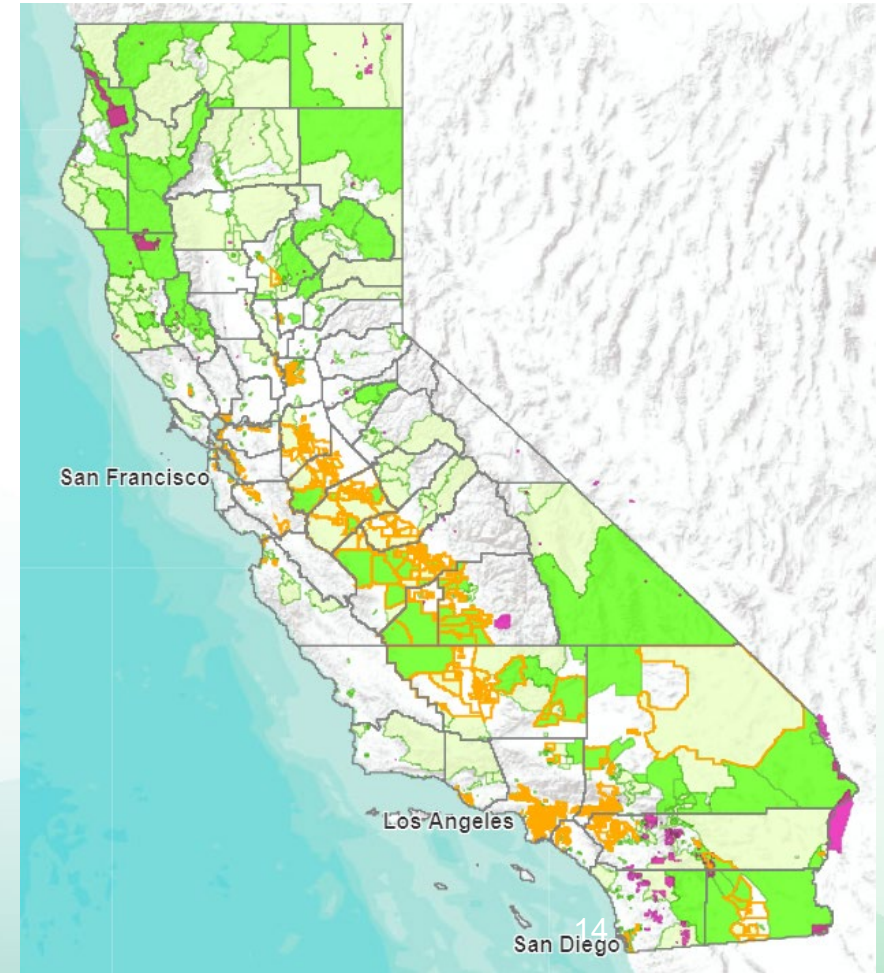




Consumer Centric Approach

- Prioritize and invest in community outreach and engagement
- Commitment to inclusion, diversity, equity, access (IDEA)
- Collaborate with Disadvantaged Communities Advisory Group (DACAG)
- Consult with CA Tribes
- Partner with local community-based organizations (CBOs)

California Tribal Lands, SB 535 Disadvantaged Communities and Low-income Communities





Value of Flexible Demand Standards to Consumers and Grid

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Flexible Demand Shift Resource Through 2030

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Supporting Flexible Resources at the CPUC

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Panel 1: Criteria for Selection of Candidate Appliances

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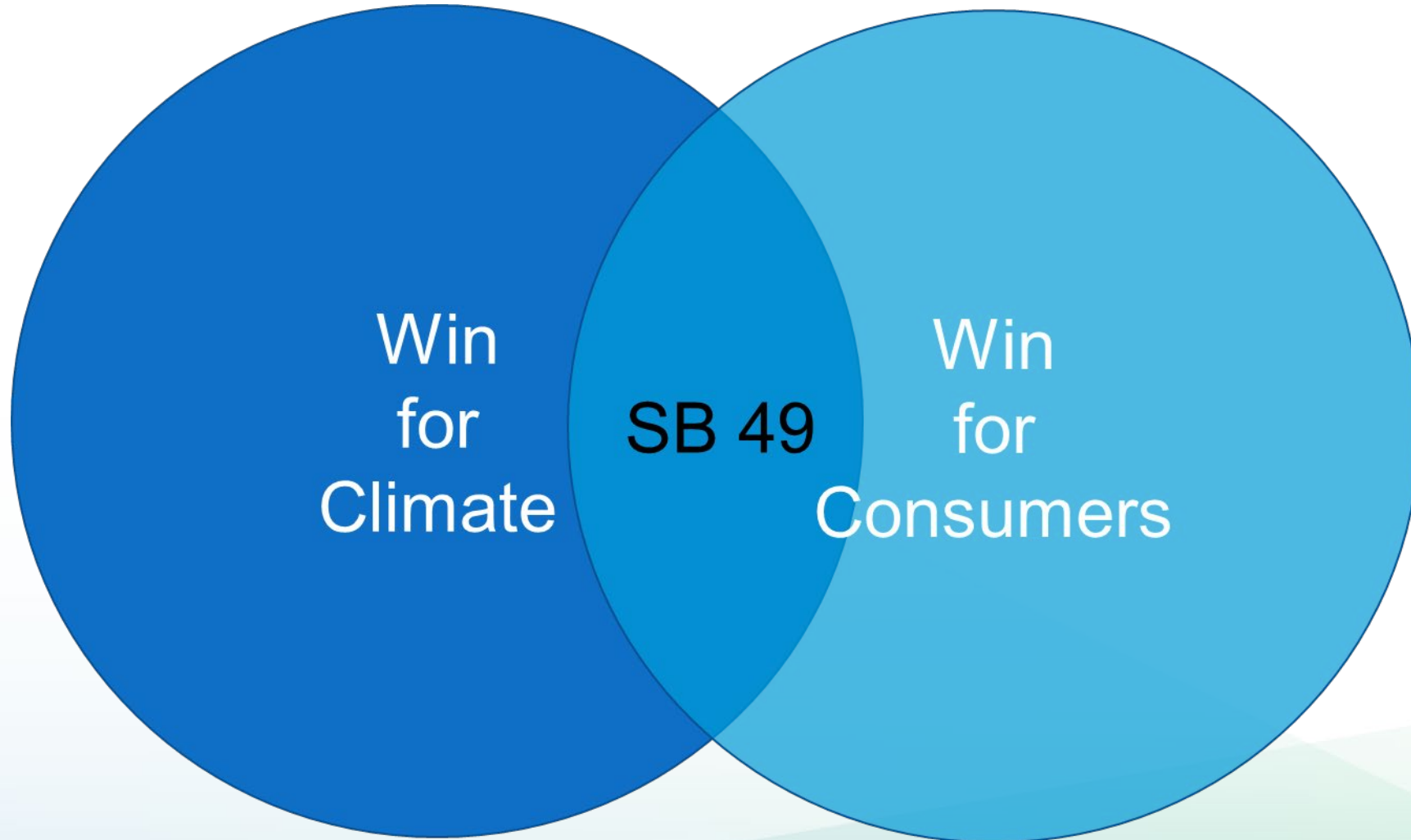
Panel 1: Criteria for Selection of Candidate Appliances

Sean Steffensen, P.E.

California Energy Commission



SB 49 Policy Objectives



SB 49 is a win/win for California



SB 49 Combats Climate Change

SB 49 authorizes appliance standards to schedule, shift, and curtail operations to reduce greenhouse gas emissions from electricity generation

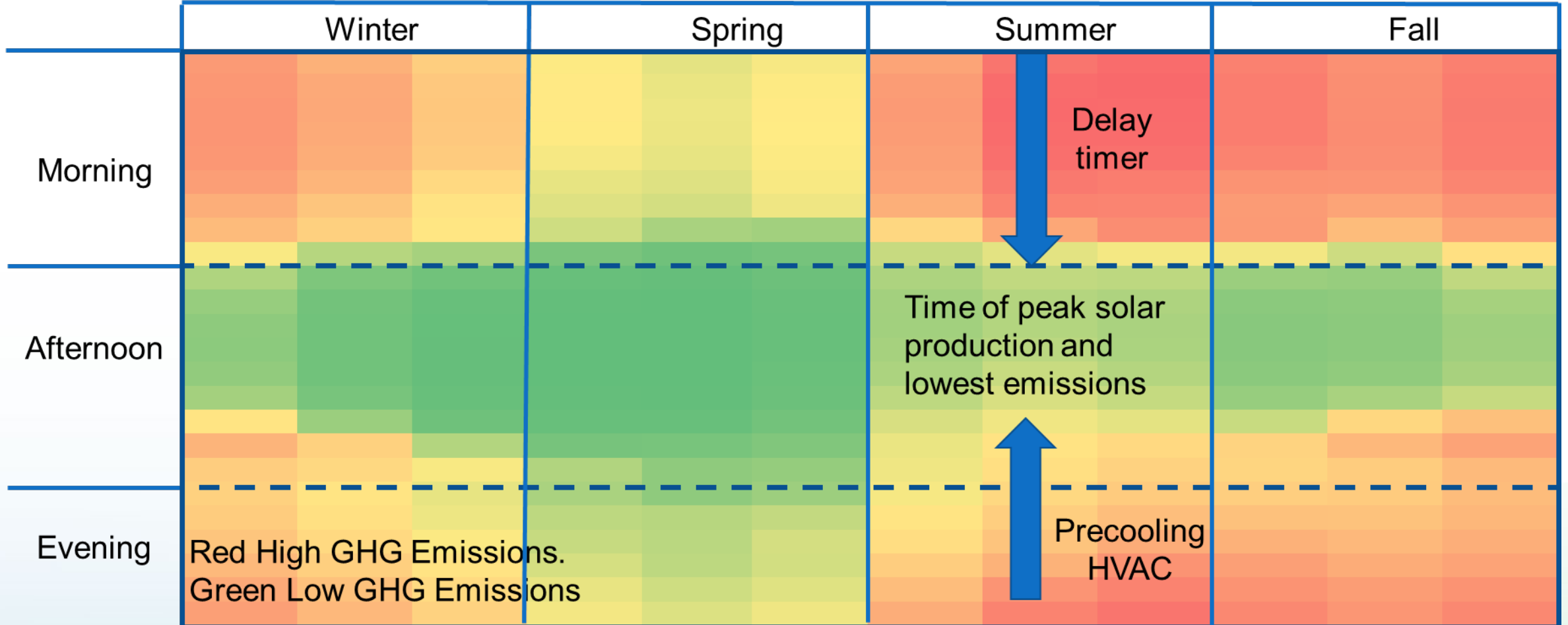


SB 49 accelerates innovation



Schedule, Shift and Curtail Load

GHG Emissions by Hour and Season (2030)



SB 49 is key to reducing emissions from homes and businesses



How will proposal shift load?

Staff will review proposals for potential to reduce GHG emissions



SB 49 will shift large loads to reduce emissions



Design vs. Performance Standards

- Proposal may have either design, performance, or both standards
- Performance standards provide the best opportunity to innovate



Design



Performance



Design and Performance

What approaches to standards achieves the best outcome?



SB 49 Puts Consumers First

- Cost-effectiveness and affordability
- Cybersecurity and reliability
- Consumer consent and ease of use
- Labeling to inform consumers



How can standards best serve consumers?



Coordination of Demand Programs

CEC shall coordinate with CPUC and Load Serving Entities to align flexible demand appliance standards and demand response programs



CEC will align standards with existing programs



Compliance and Enforcement

Goals for enforcement:

- Promote compliance
- Protect consumers
- Provide a level playing field for businesses
- Achieve environmental benefits
- Provide timely and fair resolution

Staff seek comments for the enforcement regulations



Where will solutions come from?

- Staff seek proposals and information from all stakeholders
- What appliances are ready for standards?



What standards would you propose?



Panel 1 Introductions



Abigail Daken
U.S. EPA
ENERGY STAR



Jacob Cassady
Association of Home
Appliance Manufacturers



Ashley Armstrong
A.O. Smith Corporation

- Each panelist will provide a 10-minute presentation
- Clarifying questions after each presentation
- 30-minute panel discussion, stakeholder questions after



Public Comments

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Lunch

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Panel 2: Communication Technologies and Cybersecurity

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Panel 2: Communication Technologies and Cybersecurity

Nicholaus Struven
California Energy Commission

Communication Technologies and Cybersecurity



Panel 2 Introductions



Dr. Zubair Shafiq
UC Davis
Department of Computer Science



Rolf Bienert
OpenADR Alliance



Dr. Walt Johnson
Retired EPRI

- Each panelist will provide a 10-minute presentation
- Clarifying questions after each presentation
- 20-minute panel discussion, stakeholder questions after



Panel 3: Consumer Perspectives and Equity Considerations

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Panel 3: Consumer Perspectives and Equity Considerations

Messay Betru

California Energy Commission



What is Energy Equity?

- Define energy equity in the context of appliances
- Role of energy equity in programs



Credit: Merced Sunstar, San Joaquin Valley's residence's oven as a candidate for the wood-burning, propane appliance replacement program.

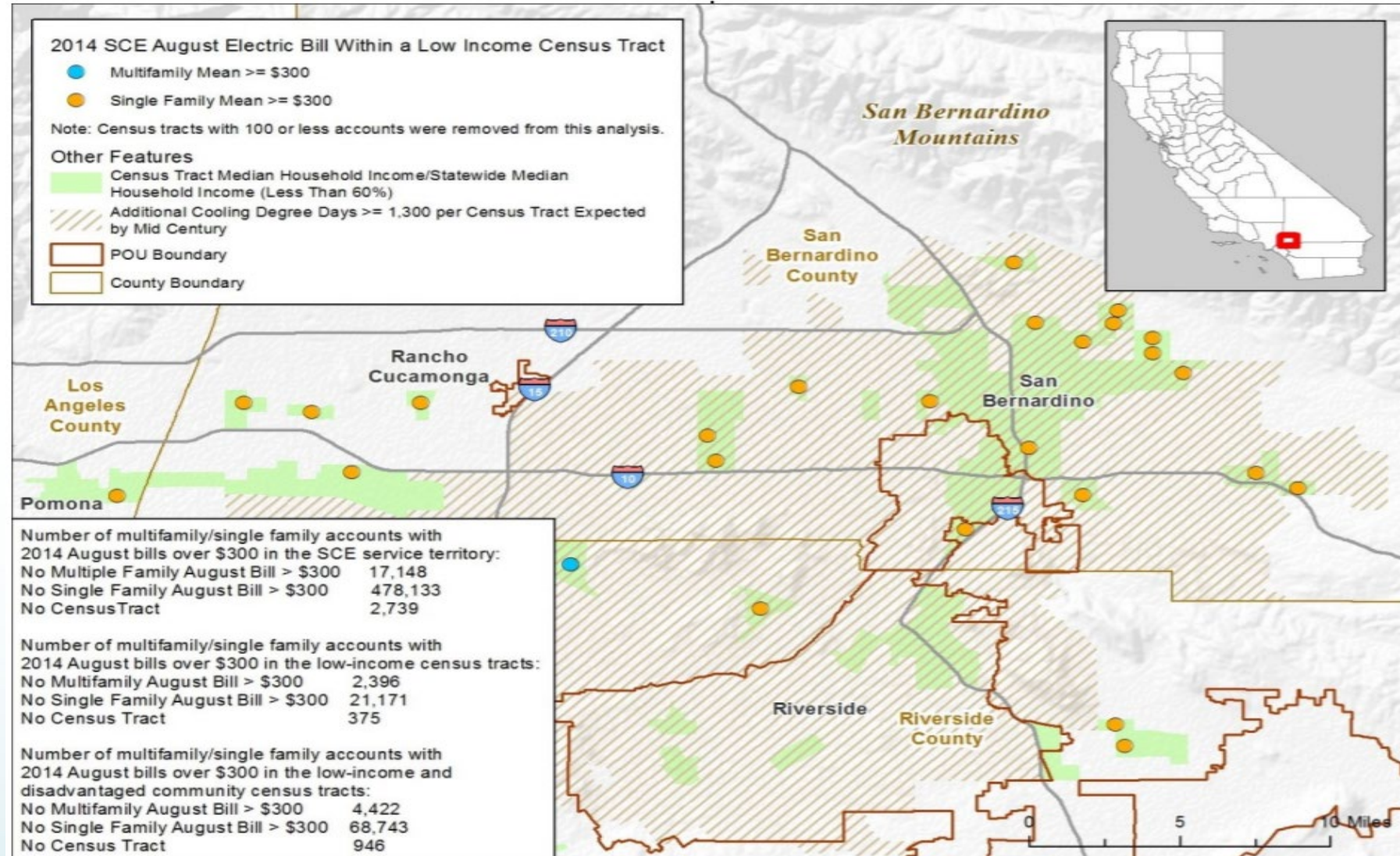


Credit: Pacific Gas & Electric (PG&E), Display of older model and newer model refrigerators, including information on the Appliance Rebate Program.



Utility Bill Disparities in Low-Income Communities

- 2014 Electric Bill Charges the in Southern California Edison (SCE) Territory
- The phenomena of “energy burden”



Source: Energy Commission analysis based on CPUC historical data; CalAdapt for cooling degree days; U.S. Census Bureau 2010 census tract boundaries; 2011-2015 ACS



State Agency Progress

- Retail Automated Transactive Energy System (RATES) platform:
 - Tariff program utilizing a total suite of appliance and tariff management in marginalized communities in the LA Basin
- SB 350 Barriers Report (2018): CEC report that identifies barriers facing disadvantaged communities seeking solutions for improved energy efficiency
 - Principal Recommendations:
 - Target setting
 - New program criteria
 - Lack of consumer information



Question Posed to Panelists

What solutions or resources can SB 49 standards for flexible appliances provide to help address energy equity, capacity, or inadequacy issues with consideration to consumer choice?



Panel 3 Introductions



Amy Dryden, Director of Strategic Innovations – Association for Energy Affordability



Mel Hall-Crawford, Director of Energy Programs – Consumer Federation of America (CFA)



Stacey L. Tutt, Visiting Professor and Director – Consumer Law Clinic, UC Irvine School of Law

- Each panelist will provide a 10-minute presentation
- Clarifying questions after each presentation
- 20-minute panel discussion, stakeholder questions after



Panel 3 Questions to Consider

- What mechanisms can be implemented to ensure equity considerations are woven into flexible demand standards?
- Why is lack of access to information a continuing issue?
- What barriers exist today, and are anticipated tomorrow?
- What are consumer interests with flexible demand appliances?



Public Comments

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Concluding Remarks and Next Steps

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Concluding Remarks and Next Steps

Nicholaus Struven
California Energy Commission



Concluding Remarks

- Senate Bill 49 provides a crucial tool in the statewide portfolio to support GHG emission reductions and decarbonization of the California economy
- Thank you for your participation and comments today
- We value your engagement and hope that you will continue to provide input as we gather additional information and analyze proposals for flexible demand appliance standards



Next Steps

- Staff will evaluate all written and oral comments received by deadline
- Stakeholders are encouraged to join the ["loadmanagement" list server](#)

Activity	Date
Lead Commissioner Workshop	December 14, 2020
Close of Public Comment Period for Workshop	January 4, 2021
Staff Report	3 rd Quarter 2021
Initiate Formal Rulemaking	4 th Quarter 2021
Public Comment Period Ends	2 nd Quarter 2022
Public Hearing	2 nd Quarter 2022
Adoption Hearing at CEC of Initial Standards	3 rd Quarter 2022
Effective Date of Initial Standards	3 rd Quarter 2023



Written Comments

- Comments due **by 5:00 p.m. on January 4, 2021**
- To **submit electronically**:
 - <https://www.energy.ca.gov/proceedings/energy-commission-proceedings/flexible-demand-appliances>
 - Click on “Submit Comment”
- To **send a hard copy**:

California Energy Commission
Dockets Office, MS-4
Re: Docket No. [20-FDAS-01]
1516 Ninth Street
Sacramento, CA 95814-5512
- To **send a digital copy**: docket@energy.ca.gov, include docket number 20-FDAS-01



Flexible Demand Appliance Standards Team

- Michael J. Sokol Deputy Director, Efficiency Division
- Pierre duVair Office Manager, Appliances
- Todd Ferris Supervisor, Flexible Demand Standards
- Nich Struven Senior Mechanical Engineer, Program Lead
- Sean Steffensen Mechanical Engineer
- Bruce Helft Energy Commission Specialist II
- Hafiz Bello Electric Generation System Specialist I
- Messay Betru Energy Commission Specialist I



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