

2019 EPIC FALL WORKSHOP

• Friday, November 8, 2019 •
9:30 am - Check-In • 10 am-3 pm Workshop
SDG&E CP East • 8680 Balboa Ave, San Diego, CA 92123

Registration Packet

Presented by:

*California Energy Commission
Pacific Gas & Electric Company
Southern California Edison
San Diego Gas & Electric*



**Pacific Gas and
Electric Company**

**SOUTHERN CALIFORNIA
EDISON**
Energy for What's Ahead®



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Workshop Agenda

If you are interested in learning more about the EPIC administrators' investment plans for the third triennial cycle and discussing upcoming changes to EPIC programs, then please join us for our 2019 EPIC Fall Workshop in San Diego. This event is FREE and open to the public and will be structured as a working session. You can attend in person or virtually online.

Time	EPIC Sessions	Presenters, Moderators
9:30 AM	Participants Arrive, Check-In, and Pick Up Materials – Workshop starts promptly at 10 am	
10:00	Safety Message and Participant Introductions	Workshop Opening
10:15	Welcome from SDG&E	Miguel Romero Vice President - Energy Supply
10:25	CPUC: EPIC Overview and Purpose of New Policy and Innovation Coordination Group (PICG)	Amy Mesrobian Supervisor, Emerging Procurement Strategies Energy Division, CPUC
10:40	Overview, Status, and Discussion of PG&E's EPIC III Implementation	Dan Gilani, PG&E
11:10	Overview, Status, and Discussion of SDG&E's EPIC III Implementation	Frank Goodman, SDG&E
11:40	Overview, Status, and Discussion of SCE's EPIC III Implementation	Aaron, Renfro, SCE
12:10 PM	LUNCH – please be back by 1:20 pm , workshop resumes promptly at 1:25 pm	
1:25	Overview, Status, and Discussion of CEC'S EPIC III Implementation: Clean Energy Investments Aimed at a Zero Carbon California Grid	Fernando Pina, CEC
1:55	Overview of Research Administration Plan (RAP) and Future Stakeholder Engagement Plans	Administrator Panel Discussion CEC, PG&E, SCE, SDG&E
2:35	Summarization of EPIC Workshop Results and Actions	Frank Goodman, SDG&E Moderator
3:00	WORKSHOP ADJOURNED – Thank you for joining us	

California's Electric Program Investment Charge (EPIC) is an electricity research, development, and demonstration (RD&D) program with three broad goals: (1) To improve the reliability of electricity service for California ratepayers; (2) To lower electricity costs for California ratepayers; and (3) To increase safety for California ratepayers.

EPIC was created by the California Public Utilities Commission (CPUC) in 2011 and is administered by the California Energy Commission (CEC), Pacific Gas & Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison (SCE).

Stakeholder Engagement

The **2019 EPIC Fall Workshop** will engage stakeholders in the execution of the EPIC III portfolio aimed at safety, clean energy, resiliency, affordability and equity in a zero-carbon future.

EPIC Administrator Commitments to Stakeholders

- Investing in critical areas
 - Worker and public safety
 - Clean energy
 - Ongoing power system improvements to enhance reliability and contain costs
- Supporting transparency through stakeholder engagement
 - Workshops
 - Results dissemination in final reports, annual reports, workshops and EPIC Symposium
- Investments in disadvantaged, low-income, and tribal communities

Investor Owned Utility Areas of Project Emphases in EPIC III Cycle

- Wildfires**
 - Prevention, mitigation, and supporting critical facilities during wildfire events
- Power System Modernization and Operations Advancement**
 - Demonstrating new capabilities to improve system operations
 - Strategic use of unmanned aircraft systems to support operations
 - Improving system reliability and resilience
 - Improving operating efficiencies
 - Demonstrating new safety capabilities
 - Advancing energy storage technologies and their system integration
 - Microgrid applications
- Customer Service & Enablement**
 - Provide integrated tools to allow customers to explore DER adoption & bill impacts

List of In-Flight & Upcoming EPIC III Projects

EPIC III Project Number	PG&E - Project Title	 Pacific Gas and Electric Company
3.03	Distributed Energy Resource Management System (DERMS) and Advanced Distribution Management System (ADMS) Advanced Functionality	
3.11	Location-Specific Options for Reliability and/or Resilience Upgrades	
3.15	Proactive Wire Down Mitigation	
3.20	Data Analytics for Predictive Maintenance	
3.27	Multi-Purpose Meter (MPM)	
3.29	Advanced Customer Bill Scenario Calculator	
3.32	System Harmonics for Power Quality Investigations	
3.43	Service Issue Identification Leveraging Momentary Outage Information	

Stakeholder Engagement

EPIC III Project Number	SCE - Project Title	
GT-18-0002	Advanced Technology for Field Safety	
GT-18-0005	Smart City Demonstration	
GT-18-0007	SA-3 Phase III Field Demonstrations	
GT-18-0008	Distributed Cyber Threat Analysis Collaboration	
GT-18-0009	Energy System Cybersecurity Posturing (ESCP)	
GT-18-0011	Distribution Primary & Secondary Line Impedance	
GT-18-0012	Advanced Comprehensive Hazards Tool	
GT-18-0016	Distributed Plug-In Electric Vehicle Charging Resources	
GT-18-0017	Service and Distribution Centers of the Future	
GT-18-0018	Control and Protection for Microgrids and Virtual Power Plants	
GT-18-0019	Distributed Energy Resources Dynamics Integration Demonstration	
GT-18-0022	Power System Voltage and VAR Control Under High Renewables Penetration	
GT-18-0035	Cybersecurity for Industrial Control Systems	

EPIC III Project Number	SDG&E - Project Title	
3	Application of Advanced Metering Infrastructure to Advanced Utility System Operations	
4	Safety Training Simulators with Augmented Visualization	
5	Unmanned Aircraft Systems with Advanced Image Processing for Electric Utility Inspection and Operations	
7	Demonstration of Multipurpose Mobile Battery for Port of San Diego and Other Applications - Module 1: Port Area Applications - Module 2: Application at Community Resource Centers in Wildfire Risk Areas	

California Energy Commission

Please see next page for the list of projects and grant funding opportunities





California Energy Commission

Energy Commission's Commitments

- Investing in Clean Energy for a Zero Carbon Future
- Supporting Transparency Through Stakeholder Engagement
 - Workshops
 - Forums
 - EPIC Symposium
- Investing in disadvantaged, low income and tribal communities

Systems Research Results and Plans to Move Innovation

- **Microgrids – Supporting Resiliency with Clean Energy Systems**
 - High Penetration Renewable Microgrids Support Critical Facilities and Showcase Best Practices and Lessons Learned
 - Blue Lake Rancheria – Humboldt County
 - Kaiser Permanente – Richmond
 - Fremont Fire Stations
 - EPIC III Research to be released in 2020 with objective to inform SB 1339 to commercialize microgrids
- **Energy Storage – Building a Portfolio of Energy Storage Options for California**
 - Advancing non-Lithium Ion Technologies
 - Eos – Zinc Hybrid
 - Amber Kinetics – Flywheel
 - UniEnergy Technologies – Flow Battery
 - Solicitations
 - Guidebook for customer side of the meter energy storage
Released September 9th
 - Energy Storage Demonstrations – long duration storage and investments in residential, disadvantaged, low income, and tribal communities
Anticipated Mid-November 2019
 - Advancing non-Lithium Ion technologies
Anticipated Mid-November 2019
 - Simulation of long duration storage for California
Anticipated Mid-November 2019
- **Wildfire**

In scoping phase with consideration to technologies that support critical facilities during emergencies

 - Anticipated public workshop in December 2019
- **Connect with the CEC**
 - Facebook
 - Twitter
 - LinkedIn
 - Empower Innovation

2019 EPIC Fall Workshop Details

Date Time Cost	Friday, November 8, 2019 9:30 am - Check-In, 10 am-3 pm – EPIC Workshop No admission charge for participants
Location Address	SDG&E's CP East Campus 8680 Balboa Ave, San Diego, CA 92123
Eventbrite Registration	https://www.eventbrite.com/e/2019-epic-fall-workshop-tickets-73038342649
Virtual Conference Link	To attend the workshop virtually, please register and you will be sent the link and access code closer to the workshop date
Event Objective	To promote awareness and visibility of the current EPIC investments, facilitate stakeholder engagement, improve coordination, and provide more transparency regarding research progress and results. Stakeholder engagement is vital to the success of the EPIC program.
Security Clearance	Once registered, you will be added to the guest list. When you arrive at SDG&E's CP East campus, please check in with the lobby security.
Food & Beverages	Will not be provided at this workshop but a café is located onsite with coffee, grab & go snacks and a grill. All purchases are made with credit or debit cards at kiosks – no cash is accepted. For lunch, a list of nearby restaurants will be provided. Water dispensers are also available to refill your personal water containers.
Onsite Wi-Fi	Instructions will be given on how to access SDG&E's guest wi-fi service at the workshop
Dress Code	Business casual
For More EPIC Information	More EPIC information will also be available on the public websites of the four EPIC administrators: • California Energy Commission • Pacific Gas & Electric • Southern California Edison • San Diego Gas & Electric
Event Manager	Donna Miyasako-Blanco, SDG&E EPIC Team DMiyasako-Blanco@sdgecontractor.com

San Diego – Nearby Hotels

#	Hotel	Mins to SDG&E	Phone	Address	City	Zip	Est. Cost per Nite	Hotel Star Rtg	Google Rtg	Description
1	Courtyard by Marriott San Diego Central	4 mins	(858) 573-0700	8651 Spectrum Center Blvd	San Diego	92123	\$110-\$127	3-star hotel	4.3	Straightforward hotel with pool & dining, FREE Wi-Fi
2	Four Points by Sheraton San Diego	6 mins	(858) 277-8888	8110 Aero Dr	San Diego	92123	\$189	3-star hotel	3.8	Modern hotel with a heated outdoor pool, Free Wi-Fi
3	Hampton Inn San Diego-Kearny Mesa	5 mins	(858) 292-1482	5434 Kearny Mesa Rd	San Diego	92111	\$135	3-star hotel	4.4	Low-key hotel with an outdoor pool, Free Wi-Fi and breakfast
4	Hilton Garden Inn San Diego Mission Valley Stadium	7 mins	(858) 278-9300	3805 Murphy Canyon Rd	San Diego	92123	\$124	3-star hotel	4.2	Modern hotel with a pool & dining, Free Wi-Fi
5	Ramada Hotel & Conference Center by Wyndham San Diego North	5 mins	(858) 278-0800	5550 Kearny Mesa Rd	San Diego	92111	\$102	3-star hotel	3.9	Informal lodging, plus a pool & dining, Free Wi-Fi
6	Residence Inn by Marriott San Diego Central	5 mins	(858) 278-2100	5400 Kearny Mesa Rd	San Diego	92111	\$169	3-star hotel	4.3	Laid-back hotel with free breakfast and Wi-Fi
7	TownePlace Suites by Marriott San Diego Central	5 mins	(858) 737-9500	8650 Tech Way	San Diego	92123	\$209	3-star hotel	4.3	Casual hotel with pool & free breakfast and Wi-Fi

San Diego – Nearby Restaurants

**Lunch is limited to 1 hour, 15 minutes - Many restaurants take online or phone orders for pick-up*

#	RESTAURANT	Mins from SDG&E	Phone	Address	City	Zip	Est. Cost	Google Rtg	Restaurant Type	Description
1	SDG&E CP East Cafeteria	On Site	Kiosk - credit or debit card required	8680 Balboa Ave	San Diego	92123	\$\$	na	On Site	On Site - Coffee, grab and go snacks, sandwiches, salads and grill
2	94th Aero Squadron	1 min	(858) 560-6771	8885 Balboa Ave	San Diego	92123	\$\$	4.3	American	Can walk across street - has a buffet - Aviation-themed spot for surf 'n' turf
3	Bud's Louisiana Café	4 mins	(858) 573-2837	4320 Viewridge Ave	San Diego	92123	\$\$	4.6	Creole	Creole & Cajun classics with basic decor
4	Chopstix Too	4 mins	(858) 565-1288	4380 Kearny Mesa Rd #300	San Diego	92111	\$	4.1	Japanese	Laid-back stop for familiar sushi rolls, specialty bowls & classic mains such as teriyaki.
5	Tajima Japanese Restaurant	4 mins	(858) 278-5367	4411 Mercury St #110	San Diego	92111	\$\$	4.5	Ramen	Sleek spot for ramen & small plates.
6	Elbowroom Bar & Grill	4 mins	(858) 874-3526	5225 Kearny Villa Rd	San Diego	92123	\$\$	4.2	Bar & Grill	Neighborhood bar & grill with games on TV, craft brews, pub eats & a pet-friendly patio
7	Sonic Drive-In	4 mins	(858) 694-0388	5247 Kearny Villa Rd	San Diego	92123	\$	3.9	Fast Food	Old-school fast-food chain offering drive-in service & made-to-order burgers, sides & shakes.
8	Filippi's Pizza Grotto	4 mins	(858) 279-7240	5353 Kearny Villa Rd	San Diego	92123	\$\$	4.3	Italian	Chain outpost offering pizza & red-sauce Italian staples in generous portions.
9	Nishiki Ramen	4 mins	(858) 987-0222	8055 Armour St #201a	San Diego	92111	\$\$	4.6	Ramen	Bright, modern offshoot of a Japanese chain serving ramen & an assortment of small plates & snacks.
10	Nishiki Ramen	4 mins	(858) 987-0222	8055 Armour St #201a	San Diego	92111	\$\$	4.6	Ramen	Bright, modern offshoot of a Japanese chain serving ramen & an assortment of small plates & snacks.
11	Lil' Farmers Café	5 mins	(858) 430-6553	4240 Kearny Mesa Rd #113	San Diego	92111	\$	4.5	Organic comfort food	Organic comfort food
12	Anny's Fine Burger	5 mins	(858) 278-0618	5375 Kearny Villa Rd	San Diego	92123	\$\$	4.4	Hamburgers	Health-conscious hangout featuring gourmet burgers, hot dogs & wings, plus weekday happy hour deals.
13	Greek Palace	5 mins	(858) 573-0155	8878 Clairemont Mesa Blvd	San Diego	92123	\$\$	4.2	Greek	Traditional Greek eats including spanikopita & souvlaki for dine-in or free delivery

San Diego – Nearby Restaurants

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#	RESTAURANT	Mins from SD&E	Phone	Address	City	Zip	Est. Cost	Google Rtg	Restaurant Type	Description
14	Koon Thai Kitchen	6 mins	(858) 514-8111	3860 Convoy St	San Diego	92111	\$	4.3	Thai	Modern Thai restaurant serving traditional dishes in striking, colorful surrounds
15	Lit'l Pepper Gourmet Deli	6 mins	(858) 565-6552	8911 Complex Dr # C	San Diego	92123	\$	4.6	Gourmet Deli	Upbeat counter-serve spot offering breakfasts & a long list of sandwiches, from classic to creative
16	McDonald's	6 mins	(858) 569-8386	8929 Clairemont Mesa Blvd	San Diego	92123	\$	3.7	Fast Food	Classic, long-running fast-food chain known for its burgers, fries & shakes
17	Rubio's Coastal Grill	6 mins	(858) 278-0726	9187 Clairemont Mesa Blvd	San Diego	92123	\$	4.3	Seafood	Chain spot for Mexican fare & fish tacos - small parking lot
18	Taco Bell	7 mins	(858) 576-0865	5335 Overland Ave	San Diego	92123	\$	3.6	Fast Food	Fast-food chain serving Mexican-inspired fare such as tacos, quesadillas & nachos
19	Pho T Cali	7 mins	(858) 565-6997	7351 Clairemont Mesa Blvd	San Diego	92111	\$	4.2	Vietnamese Pho	Locals return for familiar Vietnamese soups & dishes amongst a sleek decor inside a shopping center
20	Wendy's	7 mins	(858) 278-8530	9290 Clairemont Mesa Blvd	San Diego	92123	\$	4.1	Fast Food	Fast-food burger chain serving sides such as chili & baked potatoes
21	Casa Machado Restaurant	8 mins	(858) 292-4716	3750 John J Montgomery Dr	San Diego	92123	\$	4.4	Mexican	Mexican fare, cocktails & runway views
22	Jersey Mike's Subs	8 mins	(858) 279-6453	7420 Clairemont Mesa Blvd	San Diego	92111	\$	4.4	Sandwich Shop	New Jersey-based counter-serve sandwich chain serving jumbo subs filled with cold cuts & toppings
23	Homestyle Hawaiian	8 mins	(858) 571-5828	7524 Mesa College Dr	San Diego	92111	\$	4.3	Hawaiian	No-frills spot for island-inspired eats
24	Carl's Jr	8 mins	(858) 560-8279	9355 Clairemont Mesa Blvd	San Diego	92123	\$	4.1	Fast Food	Fast-food chain known for its variety of piled-high burgers & meal combos, plus shakes
25	Subway	8 mins	(858) 569-4109	9363 Clairemont Mesa Blvd	San Diego	92123	\$	4.1	Sandwich Shop	Casual counter-serve chain for build-your-own sandwiches & salads, with health-conscious options