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Description:	This webinar will provide the results of an Electric Program Investment Charge (EPIC) research project focused on maximizing the energy efficiency of space conditioning systems.
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Webinar Agenda

Development and Testing of the Next-Generation Residential Space Conditioning System for California (EPC-14-021)

Wednesday, March 27th, 2019, 10:00 AM – 12:00 PM PST

Location: [WebEx](#)

This webinar will provide the results of an Electric Program Investment Charge (EPIC) research project focused on maximizing the energy efficiency of space conditioning systems. The system consists of a ducted split-system variable capacity heat pump with the following energy-efficiency technology features incorporated into it and optimized for the California climate:

- Inverter driven compressors and blowers/fans to improve part load cooling and heating performance
- Zonal control using variable capacity capabilities
- Automatic demand response strategies using variable speed technology to reduce residential peak demand
- Advanced fault detection and diagnosis to optimize maintenance
- Intelligent heating in the form of a dual fuel heat pump that selects whether to use a heat pump or gas furnace

In addition, this project evaluated heat recovery ventilation and R32 refrigerants to reduce global warming potential and improve efficiency of the heat pump. Researchers from the Electric Power Research Institute (EPRI) and UC Davis, Western Cooling Efficiency Center (WCEC) will discuss results and be available to answer questions.

TIME	TOPIC	PRESENTER
10 min	Welcome & Background	<i>Ammi Amarnath, EPRI and Jackson Thach, CEC</i>
10 min	Project Overview: Objectives and Scope	<i>Ammi Amarnath, EPRI</i>
30 min	Phase 1 and Phase 2: Laboratory Evaluation Results Three independent facilities conducted the laboratory evaluation of the system's technology features: EPRI's Thermal Testing Laboratory in Knoxville, TN; PG&E's Applied Technology Services in San Ramon, CA; and UC Davis' Western Cooling Efficiency Center in Davis, CA.	<i>Sara Beaini, EPRI Curtis Harrington, WCEC</i>
30 min	Phase 3: Field Evaluation Results Field evaluation of the next system at three occupied homes. Each unit was installed in one of three California electric IOU service territories (PG&E, SCE, SDG&E). The results from Phase 1 and Phase 2 informed the optimization configurations for Phase 3 field-evaluation units.	<i>Sara Beaini, Aaron Tam, EPRI Curtis Harrington, WCEC</i>
15 min	Technology Recommendations	<i>Ammi Amarnath, Sara Beaini, EPRI</i>
10 min	Technology Transfer and Next Steps	<i>Ammi Amarnath, EPRI</i>
15 min	Questions & Discussion	<i>All</i>