

Item 16

State of California

California Energy Commission

Minutes of the May 9, 2018, Energy Commission Business Meeting

The meeting was called to order by Chair Weisenmiller. The Pledge of Allegiance was led by Chair Weisenmiller.

Present:

Robert B. Weisenmiller, Chair

Karen Douglas, Commissioner

J. Andrew McAllister, Commissioner

David Hochschild, Commissioner

Janea A. Scott, Commissioner

THE COMMISSION WILL CONSIDER AND MAY TAKE ACTION ON THE FOLLOWING ITEMS:

1. CONSENT CALENDAR. (Items on the Consent Calendar will be taken up and voted on as a group. A commissioner may request that an item be moved and discussed later in the meeting.)
 - a. VICTORVILLE 2 HYBRID POWER PROJECT (07-AFC-01C). Proposed order terminating the Energy Commission certification of the Victorville 2 Hybrid Power Project, as amended. Contact: Mary Dyas.
 - b. AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY. Proposed resolution approving Agreement 100-17-003 with American Council for an Energy-Efficient Economy (ACEEE) for a \$5,000 contract to co-sponsor the 20th biennial Summer Study on Energy Efficiency in Buildings to be held August 12-17, 2018 in Pacific Grove, California. This preeminent conference will attract a diverse group of professionals to discuss cutting-edge technologies, strategies, and programs for reducing energy use in buildings and addressing climate impacts. (ERPA funding) Contact: Rachel Grant Kiley.
 - c. MODESTO IRRIGATION DISTRICT. Proposed order approving the Executive Director's recommendation that the Modesto Irrigation District's Power Purchase Agreement with ARP-Loyalton Cogen, LLC for the procurement of bioenergy from the Loyalton Biomass Facility be found compliant with the Emissions Performance Standard for Local Publicly Owned Electric Utilities pursuant to Senate Bill 1368 (California Code of Regulations, Title 20, Sections 2900-2913). Contact: Michael Nyberg.
 - d. SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY. Proposed order approving the Executive Director's recommendation that the Southern California Public Power Authority's Power Purchase Agreement with ARP-Loyalton Cogen, LLC for the procurement of bioenergy from the Loyalton Biomass Facility be found compliant with the Emissions Performance Standard for Local Publicly Owned Electric Utilities pursuant to Senate Bill 1368 (California Code of Regulations, Title 20, Sections 2900-2913). Contact: Michael Nyberg.
 - e. TURLOCK IRRIGATION DISTRICT. Proposed order approving the Executive Director's recommendation that the Turlock Irrigation District's Power Purchase

Agreement with ARP-Loyalton Cogen, LLC for the procurement of bioenergy from the Loyalton Biomass Facility be found compliant with the Emissions Performance Standard for Local Publicly Owned Electric Utilities pursuant to Senate Bill 1368 (California Code of Regulations, Title 20, Sections 2900-2913). Contact: Michael Nyberg.

Commissioner Douglas moved Item 1 and Commissioner Hochschild seconded. The vote was unanimous (5-0).

2. 2019 BUILDING ENERGY EFFICIENCY STANDARDS (17-BSTD-02). Proposed resolution adopting the Negative Declaration for the 2019 update to the Building Energy Efficiency Standards and the 2019 update to the Building Energy Efficiency Standards. Contact: Payam Bozorgchami. (Staff presentation: 15 minutes)
 - a. NEGATIVE DECLARATION. The Negative Declaration for the 2019 update to the Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6, associated administrative regulations in Part 1, and associated appendices (Joint, Residential, and Nonresidential Reference Appendices, and the Alternative Calculation Method Approval Manual with its appendices).
 - b. 2019 UPDATE TO BUILDING ENERGY EFFICIENCY STANDARDS. Following publication of proposed changes and 15-day comment period, the proposed 2019 update to the Building Energy Efficiency Standards in California Code of Regulations, Title 24, Part 6, associated administrative regulations in Part 1, and associated appendices (Joint, Residential, and Nonresidential Reference Appendices, and the Alternative Calculation Method Approval Manual with its appendices).

Commissioner McAllister moved 1.) the Initial Study and Negative Declaration for the 2019 update, including its Addendum; 2.) the 2019 Update to the Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6, the associated administrative regulations in California Code of Regulations, Title 24, Part 1, except for: the changes to Section 140.5(b), and the additional changes made during 15-day language to Sections 120.1(b)1Ai, 120.1(c)1A, and 150.0(m)12Ai, as noted in the resolution; 3.) the associated appendices (Joint, Residential, and Nonresidential Reference Appendices, and the Alternative Calculation Method Approval Manual with its appendices); 4.) The Errata, and; 5.) The resolution, and Commissioner Hochschild seconded. The vote was unanimous (5-0).

3. APPROVAL OF THE CALIFORNIA STATE PIPE TRADES COUNCIL. Proposed resolution approving the California State Pipe Trades Council (CSPTC) proposed Nonresidential Mechanical Acceptance Test Technician Certification Provider updates for the 2016 Building Energy Efficiency Standards. This will allow CSPTC to administer its proposed program changes and training curricula adjustments for the 2016 Energy Standards code cycle. Contact: Joe Loyer. (Staff presentation: 5 minutes)

Commissioner McAllister moved Item 3 and Commissioner Douglas seconded. The vote was unanimous (5-0).

4. APPROVAL OF THE REFRIGERATION SERVICE ENGINEERS SOCIETY. Proposed resolution approving the Refrigeration Service Engineers Society application to become a Mechanical Acceptance Test Technician Certification Provider pursuant to Section 10-103.2(e) of the 2016 Building Energy Efficiency Standards, codified in the California Code of Regulations, Title 24, Part 1, Chapter 10. Contact: Joe Loyer. (Staff presentation: 5 minutes)

Commissioner McAllister moved Item 4 and Commissioner Douglas seconded. The vote was unanimous (5-0).

5. **FOOD PRODUCTION INVESTMENT PROGRAM.** Proposed resolution approving the Food Production Investment Program Guidelines. The Food Production Investment Program, funded by Assembly Bill 109 (Stats. 2017, ch. 249, § 10), provides grants to California's food processing industry to reduce greenhouse gas (GHG) emissions by adopting advanced energy efficiency and renewable energy technologies at California food processing plants, and demonstrating the reliability and effectiveness of these technologies. Funding for the program comes from the California Climate Investments initiative (Greenhouse Gas Reduction Fund (GGRF)) and all funded projects must reduce GHG emissions and further the purposes of Assembly Bill 32 and related amendments. The guidelines provide details on how the Energy Commission will administer the program and include information on program design, project selection and administrative requirements. (GGRF funding) Contact: Virginia Lew. (Staff presentation: 10 minutes)

Commissioner Douglas moved Item 5 and Commissioner Scott seconded. The vote was unanimous (5-0).

6. **UPDATE TO THE ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE TECHNOLOGY PROGRAM'S (ARFVTP) ONLINE PROJECT SHOWCASE.** Overview of the ARFVTP online project showcase which highlights the successes and benefits provided by projects funded under the ARFVTP. Contact: Shaun Ransom. (Staff presentation: 5 minutes)

Staff presented Information Item 6.

7. **2018-2019 INVESTMENT PLAN UPDATE FOR THE ARFVTP.** Proposed resolution approving the 2018-2019 Investment Plan Update for the ARFVTP. This program develops and deploys innovative technologies that transform California's fuel and vehicle types to help achieve the state's climate change goals. The annual Investment Plan Update determines priorities and opportunities for the program, describes how funding will complement existing public and private efforts, and serves as a guide for funding decisions. Contact: Jacob Orenberg. (Staff presentation: 10 minutes)

Commissioner Scott moved Item 7 and Commissioner Douglas seconded. Commissioner McAllister was absent for this item. The vote was 4-0.

8. **COMMUNITY-SCALE AND COMMERCIAL-SCALE ADVANCED BIOFUELS PRODUCTION FACILITIES, GFO-15-606.** This solicitation sought proposals for low carbon biofuel production projects at new and existing biofuel production facilities. Eligible biofuels included diesel substitutes, gasoline substitutes, and biomethane. (ARFVTP funding) Contact: Tomas Ortiz. (Staff Presentation: 5 minutes)
 - a. **ANAHEIM ENERGY, LLC.** Proposed resolution adopting California Environmental Quality Act findings and statement of overriding considerations for Anaheim Energy LLC's bioenergy facility project and approving Agreement ARV-17-019 with Anaheim Energy, LLC.
 - i. **CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS.**

Findings that based on the lead agency, the City of Rialto's, certified Final Environmental Impact Report, adopted Mitigation, Monitoring and Reporting Program, adopted Statement of Overriding Considerations, resolution regarding the aforementioned documents, as well as the City of Rialto's resolution approving the project, its filed Notice of Determination, and the City of Rialto's Action Agenda, the work under the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered; and adopting a statement of overriding considerations.

- ii. ANAHEIM ENERGY LLC'S BIOENERGY FACILITY PROJECT. Agreement with Anaheim Energy, LLC for a \$3,080,000 grant to revitalize the Rialto Bioenergy Facility in Bloomington, California, a disadvantaged community. When fully operational, the upgraded facility will convert food waste and biosolids, diverted from landfills in the greater Los Angeles region, into 880,000 diesel gallon equivalents of biomethane transportation fuel. The proposed fuel will have a carbon intensity of 30gCO₂e/MJ and will eliminate 20,209 metric tons of carbon emissions annually from transportation fuel.
- b. MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT. Proposed resolution approving Agreement ARV-17-036 with Monterey Regional Waste Management District for a \$1,816,800 grant to produce renewable natural gas from biogas created from decomposing organic waste material and captured from the district's operating anaerobic digestion composting system and landfill gas wells located at the Monterey Peninsula Landfill. The renewable natural gas produced by this project will be used to fuel the district's fleet and has the potential for scale-up in production to serve other local and regional fleets. The project will result in approximately 520,785 diesel gallon equivalents of renewable natural gas, displacing over 6,300 MT CO₂e/yr.

Commissioner Scott moved Item 8 and Commissioner Douglas seconded. The vote was unanimous (5-0).

9. LOS ANGELES TRADE TECHNICAL COLLEGE. Proposed resolution approving Agreement 600-17-009 with Los Angeles Trade Technical College for a \$1,350,000 contract to increase the quality, access, and availability of training for careers and jobs related to the alternative fuel industry for South Los Angeles Transit Empowerment Zone (SLATE-Z) community residents. The proposed project includes development of innovative curriculum and instructional aids; marketing and outreach to targeted audiences; faculty/trainer professional development; and incumbent and new entrant training opportunities. (ARFVTP funding) Contact: Tami Haas. (Staff Presentation: 5 minutes)

Commissioner Scott moved Item 9 and Commissioner Hochschild seconded. The vote was unanimous (5-0).

10. UNIVERSITY OF CALIFORNIA, IRVINE. Proposed resolution approving Agreement 600-17-008 with The Regents of the University of California, on behalf of the Irvine campus for a \$350,000 contract to conduct a one-year research study to establish a roadmap for the development of renewable hydrogen generation facilities in California. The results will provide immediate insight into the size, location, technology, costs, and input and distribution resources required for the early fuel cell electric vehicle (FCEV) market. The study will recommend a plan for the roll-out of facilities to support the

mature FCEV market and meet state goals. (ARFVTP funding) Contact: Matthew Ong.
(Staff Presentation: 5 minutes)

Commissioner Scott moved Item 10 and Commissioner Hochschild seconded. The vote was unanimous (5-0).

11. **ADVANCED FREIGHT VEHICLE INFRASTRUCTURE DEPLOYMENT, GFO-17-603.** This solicitation sought proposals to fund projects that will support infrastructure deployment for Advanced Freight Vehicles. (ARFVTP funding) Contact: Sam Lerman.
(Staff Presentation: 5 minutes)
 - a. **CITY OF LONG BEACH HARBOR DEPARTMENT.** Proposed resolution approving Agreement ARV-17-037 with the City of Long Beach Harbor Department (Port of Long Beach) for an \$8,000,000 grant to install advanced battery-electric charging technology for zero emission yard tractors and forklifts to reduce petroleum consumption, exhaust, and GHG emissions. Match funds will be used to purchase electric vehicles and support workforce training. The demonstration will occur at the Port of Long Beach and will benefit disadvantaged communities.
 - b. **CITY OF LOS ANGELES HARBOR DEPARTMENT.** Proposed resolution approving Agreement ARV-17-049 with the City of Los Angeles Harbor Department for a \$7,842,270 grant to install advanced battery-electric charging technology for a zero emission yard tractor fleet to reduce petroleum consumption, exhaust, and GHG emissions. The demonstration will occur at the Port of Los Angeles and will benefit disadvantaged communities.

Commissioner Scott moved Item 11 and Commissioner Douglas seconded. The vote was unanimous (5-0).

12. **CALIFORNIA AIR DISTRICT NATURAL GAS VEHICLES SOLICITATION, GFO-17-605.** This solicitation sought proposals to fund existing or planned incentive programs for compressed natural gas (CNG) vehicles. (ARFVTP funding) Contact: Sarah Williams.
(Staff Presentation: 5 minutes)
 - a. **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT.** Proposed resolution approving Agreement ARV-17-040 with South Coast Air Quality Management District (SCAQMD) for an \$8,000,000 grant to incentivize the purchase of 140 low NOx trucks reducing pollution in disadvantaged communities within the SCAQMD service territory.
 - b. **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT.** Proposed resolution approving Agreement ARV-17-041 with San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) for an \$8,000,000 grant to incentivize the purchase of 80 low NOx trucks reducing pollution in disadvantaged communities within the SJVUAPCD service territory.

Commissioner Scott moved Item 12 and Commissioner McAllister seconded. The vote was unanimous (5-0).

13. **ELECTRIC VEHICLE READY COMMUNITIES CHALLENGE PHASE I – BLUEPRINT PLAN DEVELOPMENT, GFO-17-604.** This solicitation sought proposals to accelerate the deployment of electrified transportation within the local and regional levels with a holistic and futuristic view of regional transportation planning. This solicitation is for Phase I of an expected two-phase effort for EV ready communities. Phase I is for the development of the planning blueprints to identify the actions and

milestones needed for an EV-ready community. Successful applicants under this solicitation may have the opportunity to submit their completed blueprints to compete for future funding under Phase II to implement a portion of their completed blueprints. (ARFVTP funding) Contact: Sharon Purewal. (Staff Presentation: 10 minutes)

- a. TIERRA RESOURCE CONSULTANTS, LLC. Proposed resolution approving Agreement ARV-17-038 with Tierra Resource Consultants, LLC, for a \$199,811 grant to develop a blueprint report and forecasting model that provides the Fresno community with a comprehensive and strategic approach to identifying electrified transportation options, actions and milestones required to become an EV-ready community.
- b. CITY OF SACRAMENTO. Proposed resolution approving Agreement ARV-17-042 with City of Sacramento for a \$199,280 grant to develop an actionable Sacramento EV implementation blueprint to accelerate the City's current efforts and build capacity to advance EV initiatives.
- c. COUNTY OF LOS ANGELES. Proposed resolution approving Agreement ARV-17-043 with County of Los Angeles for a \$200,000 grant to develop an EV readiness blueprint, which will provide a comprehensive strategy for a responsible and responsive acceleration to a zero-emissions mobility society.
- d. KERN COUNCIL OF GOVERNMENTS. Proposed resolution approving Agreement ARV-17-045 with the Kern Council of Governments for a \$200,000 grant to develop a comprehensive and replicable EV blueprint plan that will place Kern County on a pathway to achieve its greenhouse gas emission reduction goals at an accelerated rate through high-impact transportation electrification projects.
- e. VENTURA COUNTY REGIONAL ENERGY ALLIANCE. Proposed resolution approving Agreement ARV-17-046 with Ventura County Regional Energy Alliance for a \$196,466 grant to develop a blueprint that engages a diverse group of stakeholders and conduct research on workplaces, multi-family housing, and disadvantaged communities. These findings will be distilled into a comprehensive and replicable EV ready community blueprint describing a step-by-step plan for electrifying the transportation sector in Ventura County.
- f. SAN FRANCISCO DEPARTMENT OF THE ENVIRONMENT. Proposed resolution approving Agreement ARV-17-047 with San Francisco Department of the Environment for a \$199,398 grant to advance EVs and expand the market by introducing actions to remove barriers to market growth and develop a blueprint and mapping tool that will serve as an action item list for city staff, private sector partners, community members, and other stakeholders.
- g. CITY OF LONG BEACH HARBOR DEPARTMENT. Proposed resolution approving Agreement ARV-17-048 with City of Long Beach Harbor Department for a \$200,000 grant to develop an innovative, replicable EV and equipment blueprint plan in the Port of Long Beach community, which includes marine terminals, cargo-handling vehicles, visitor facilities, and warehouse/distribution centers.
- h. CITY OF SANTA CLARA. Proposed resolution approving Agreement ARV-17-044 with the City of Santa Clara for a \$199,921 grant to develop a detailed regional plan for accelerating EV deployment.

Commissioner Scott announced that she is a member of the UCLA Luskin Center Advisory Board and the Luskin Center is a subcontractor in Item 13c. Commissioner Scott moved Item 13 and Commissioner McAllister seconded. The vote was unanimous (5-0).

14. BRUCE A. WILCOX, P.E. Proposed resolution approving Agreement 400-17-005 with Bruce A. Wilcox, P.E., for a \$4,000,000 contract to provide technical support for the Residential Building Energy Efficiency Standards process. (COIA and ERPA funding) Contact: Adrian Ownby. (Staff Presentation: 5 minutes)

Commissioner McAllister moved Item 14 and Commissioner Douglas seconded. The vote was unanimous (5-0).

15. KERN VALLEY HEALTHCARE DISTRICT. Proposed resolution approving Agreement 005-17-ECA with Kern Valley Healthcare District for a \$1,918,560 loan at one percent interest for an energy efficiency project, including lighting and HVAC upgrades. The combined project is estimated to save the district 740,444 kWh electricity and 18,399 therms annually, resulting in annual energy cost savings of \$125,570. (ECAA funding) Contact: Gavin Situ. (Staff Presentation: 5 minutes)

Commissioner McAllister moved Item 15 and Commissioner Hochschild seconded. The vote was unanimous (5-0).

16. LAWRENCE BERKELEY NATIONAL LABORATORY. Proposed resolution approving Agreement PIR-17-010 with U.S. Department of Energy's Lawrence Berkeley National Laboratory for a \$549,978 grant to develop a methodology enabling the differentiation of natural gas sources using chemical and isotopic analysis. Results from the research will help improve the accounting of total GHG emissions associated with the natural gas system. (Natural Gas funding) Contact: Katharina Snyder. (Staff presentation: 5 minutes)

Commissioner Douglas moved Item 16 and Commissioner McAllister seconded. The vote was unanimous (5-0).

17. EFFICIENT DRIVETRAINS, INC. Proposed resolution approving Agreement PIR-17-016 with Efficient Drivetrains, Inc. for a \$1,087,237 grant to develop, optimize, and demonstrate a heavy-duty, natural gas, plug-in hybrid-electric vehicle system to achieve near-zero emissions, improved driving performance, increased efficiency, and reduced manufacturing costs. (Natural Gas funding) Contact: Peter Chen. (Staff presentation: 5 minutes)

Commissioner Hochschild moved Item 17 and Commissioner Scott seconded. The vote was unanimous (5-0).

18. INSTITUTE OF GAS TECHNOLOGY. Proposed resolution approving Agreement PIR-17-017 with Institute of Gas Technology for a \$1,405,947 grant to demonstrate the technical performance and cost effectiveness of a high temperature solar thermal and storage technology that can provide cost-effective, high temperature process heat for industrial processes and significantly reduce natural gas use. (Natural Gas funding) Contact: Michael Lozano. (Staff presentation: 5 minutes)

Commissioner Hochschild moved Item 18 and Commissioner Douglas seconded. The vote was unanimous (5-0).

19. NAVIGANT CONSULTING, INC. Proposed resolution approving Agreement 300-17-003 with Navigant Consulting, Inc. for a \$499,065 contract to identify and prioritize the most critical research to achieve California's goals for integrating high penetrations of distributed energy resources. Results will be used to strategically target future Electric

Program Investment Charge investments in a manner that provides optimal benefits to investor owned utility electric ratepayers and maximizes the use of public research and development investments. (EPIC funding) Contact: Angela Gould. (Staff presentation: 5 minutes)

Commissioner Douglas moved Item 19 and Commissioner Scott seconded. The vote was unanimous (5-0).

20. INDUSTRIAL ECONOMICS INCORPORATED. Proposed resolution approving Agreement 300-17-004 with Industrial Economics Incorporated for a \$3,000,000 contract to develop and pilot new methodologies that will be used to better evaluate the ratepayer benefits of projects funded through the Electric Program Investment Charge. (EPIC funding) Contact: James Friedrich. (Staff presentation: 5 minutes)

Commissioner McAllister moved Item 20 and Commissioner Douglas seconded. The vote was unanimous (5-0).

21. ENERGETICS, INC. Proposed resolution approving Agreement 300-17-005 with Energetics, Inc. for a \$338,077 contract to identify, describe and prioritize key research development and demonstration (RD&D) needs on cost and technology breakthroughs for renewable energy generation. Research will focus on those efforts that can increase the cost competitiveness, flexibility, and reliability of renewable energy generation and operation in California to inform future research investments leading to increased contributions of renewable energy into the state's grid. (EPIC funding) Contact: Joe O'Hagan. (Staff presentation: 5 minutes)

Commissioner Scott moved Item 21 and Commissioner Douglas seconded. The vote was unanimous (5-0).

22. UNIVERSITY OF CALIFORNIA, SAN DIEGO. Proposed resolution approving Agreement EPC-17-051 with The Regents of the University of California, on behalf of the San Diego campus for a \$475,000 grant to provide cost-share to leverage a \$3,800,000 U.S. Department of Energy award to develop and demonstrate a new data center architecture based on optical switching that can deliver more bandwidth, and process more information, without increasing the energy use of current networks. This improvement is anticipated to double the energy efficiency of data centers. (EPIC funding) Contact: Kevin Mori. (Staff presentation: 5 minutes)

Commissioner Douglas moved Item 22 and Commissioner McAllister seconded. The vote was unanimous (5-0).

23. DEMONSTRATE BUSINESS CASE FOR ADVANCED MICROGRIDS IN SUPPORT OF CALIFORNIA'S ENERGY AND GHG POLICIES, GFO-17-302. This solicitation sought proposals to fund technology demonstration and deployment projects that meet S14 Strategic Objective - Take Microgrids to the Next Level: Maximize the Value to Customers as defined in the 2015-2017 Triennial EPIC Investment Plan. Contact: David Erne. (Staff presentation: 5 minutes)

- a. SAN DIEGO UNIFIED PORT DISTRICT (PORT OF SAN DIEGO). Proposed resolution adopting California Environmental Quality Act Findings for the San Diego Unified Port District's Tenth Avenue Marine Terminal Renewable Microgrid Project, and approving Agreement EPC-17-049 with San Diego Unified Port District.

- i. CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS. Findings based on the lead agency San Diego Unified Port District's

Final Environmental Impact Report and Second Addendum thereto; Mitigation Monitoring and Reporting Program; Statement of Overriding Considerations; resolutions regarding the aforementioned documents; and filed Notices of Determination, that work under the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered and mitigated; and adopting a statement of overriding considerations.

- ii. **TENTH AVENUE MARINE TERMINAL RENEWABLE MICROGRID PROJECT.** Proposed resolution approving Agreement EPC-17-049 with San Diego Unified Port District for a \$4,985,272 grant to develop a renewable energy-based microgrid at the Port of San Diego that can be replicated at other seaport terminals and distribution facilities throughout California, the U.S., and internationally. The project will incorporate solar photovoltaic generation, battery energy storage, energy efficiency improvements, and a centralized microgrid controller to allow key elements of the terminal to remain operational when islanded from the electrical grid for a minimum of 12 hours, maintaining power to critical functions of the U.S. Department of Defense Strategic Port.
- b. **GRIDSCAPE SOLUTIONS, INC.** Proposed resolution approving Agreement EPC-17-052 with Gridscape Solutions, Inc. for a \$4,995,498 grant to demonstrate a commercialization-capable, modular, and secure approach to accelerate adoption of microgrids in the state of California. The project will develop and deploy virtual wide-area microgrids within disadvantaged communities that span multiple investor owned utilities service territories and involve microgrids with different sizes for disaster-readiness, resiliency, and grid services.

Commissioner Scott moved Item 23 and Commissioner Douglas seconded. The vote was unanimous (5-0).

- 24. **DISTRIBUTION SYSTEM MODELING TOOLS TO EVALUATE DISTRIBUTED ENERGY RESOURCES (DER), GFO-17-305.** This solicitation sought proposals to fund research to improve dynamic distribution modeling tools that can determine operational impacts and integration strategies for high amounts of renewables, DER, including plug-in electric vehicles, and microgrids using advanced smart grid equipment. Projects will develop open source modeling tools that are capable of modeling all smart grid elements and simulating California's future smart distribution system. These tools will incorporate nonproprietary open source algorithms. (EPIC funding) Contact: Jamie Patterson. (Staff presentation: 5 minutes)
 - a. **ELECTRIC POWER RESEARCH INSTITUTE, INC.** Proposed resolution approving Agreement EPC-17-039 with EPRI for a \$2 million grant to develop a publicly-available, open-source, microgrid valuation and optimization software tool to aide in the design of microgrid and distributed energy resource deployments.
 - b. **DOE-SLAC NATIONAL ACCELERATOR LABORATORY.** Proposed resolution approving Agreement EPC-17-047 with the U.S. Department of Energy's SLAC National Accelerator Laboratory for a \$1 million grant to create a data translation software tool to enable data translation and exchange between grid-planning applications.

- c. DOE-SLAC NATIONAL ACCELERATOR LABORATORY. Proposed resolution approving Agreement EPC-17-046 with the U.S. Department of Energy's SLAC National Accelerator Laboratory for a \$3,068,781 grant to increase the speed of the open-source version of GridLAB-D.
- d. HITACHI AMERICA, LTD. Proposed resolution approving Agreement EPC-17-043 with Hitachi America, Ltd., for a \$2,999,699 grant to develop an intuitive user interface for GridLAB-D that provides a user-friendly environment for researchers, planners, developers, and regulators involved in distribution grid modeling.

Commissioner Douglas moved Item 24 and Commissioner McAllister seconded. The vote was unanimous (5-0).

- 25. 2018 IEPR UPDATE RE: ENERGY EQUITY TOPICS. Staff update and discussion regarding energy equity topics that may be included or addressed in the 2018 IEPR Update, including current or completed programs and policies that have increased energy equity in California, development and implementation of energy equity indicators, and other efforts to ensure low-income and disadvantaged communities have opportunities to participate in and benefit from advancements and investments in energy efficiency, renewable energy, and clean transportation. Contact: Terra Weeks. (Staff presentation: 5 minutes)

Staff presented Information Item 25.

- 26. DISCUSSION OF ENERGY COMMISSION PROGRESS RE: IMPLEMENTATION OF THE CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350). Staff presentation regarding progress on implementation of SB 350 requirements, including administration of the California Renewables Portfolio Standard program, review of local publicly owned electric utility integrated resource plans, revision of Commission data collection regulations to improve demand forecasting, identification of progress in meeting the bill's goals of 50 percent renewables procurement and doubling of energy efficiency, implementation of widespread transportation electrification, and preparation and publication of the study required by Public Resources Code section 25327 regarding barriers for low-income customers to energy efficiency, weatherization, and renewable energy investments. Contact: Michael Sokol. (Staff presentation: 5 minutes)

Staff presented Information Item 26.

- 27. **Minutes.** Possible approval of the April 11, 2018 Business Meeting minutes.

Commissioner Scott moved Item 27 and Commissioner Douglas seconded. The vote was unanimous (5-0).

- 28. **Lead Commissioner or Presiding Member Reports.** The Commissioners reported on their recent activities.
- 29. **Chief Counsel's Report.** None.
- 30. **Executive Director's Report.** None.
- 31. **Public Adviser's Report.**
- 32. **Public Comment.** Tony Brunello, Gridworks

Appearances:

(*by telephone)

*Laura Petrillo-Grow, AHRI

*Peter Esposito, no affiliation

*Shawn Mullins, Owens Corning
*Edward Moreno, Sierra Club
*Collin Tateishi, California Housing Partnership
*Shawn Matejcek, City of Fontana
*Renee Yarmy, Port of San Diego
*George Papen, UC, San Diego
*James Hansell, Navigant Consulting
*Mark Conrad, LBNL
*Leticia Barajas, Los Angeles Trade Technical College
*Yaniv Scherson, Anaheim Energy
*Brian Goldstein, Energy Independence Now
*Vicki White, South Coast Air Quality Management District
*Aaon Tarango, SJUVAPCD
Jacob B. Goldberg, The Port of Los Angeles
Kathleen Smiley Hughes, Silicon Valley Power
Richard D. Cameron, The Port of Long Beach
Timothy S. Flanagan, Monterey Regional Waste Management District
Bill Elrick, California Fuel Cell Partnership
Tyson Eckerle, GoBiz
Eileen Wenger Tutt, California Electric Transportation Coalition
Bob Raymer, California Building Industry Association
Grant Mack, California Public Utilities Commission
Qunfang Zhang, California Air Resources Board
Diana Scaturro, Office of Statewide Health Planning and Development
Megan Cordes, ConSol
Michelle Thomas, Southern California Edison
Rick Umoff, Solar Energy Industries Association
Kevin Messner, Association of Home Appliance Manufacturers
Pierre Delforge, Natural Resources Defense Council
Eileen Tovar, Environment California
Brian Selby, Selby Energy, Inc.
Thomas L. Sheehy, GreenbergTraurig
Helmut Gehle, Sunrun
Francesca Wahl, Tesla
Kelly Cunningham, PG&E
Tim Carmichael, SDG&E
Steve Dubin, Rmax

Bruce Severance, Mitsubishi Electric
Zadie Oleksiw, Vote Solar
Nancy Nelson, OAG
Kelly Knutsen, California Solar + Storage Association
Shawn G. Intagliata, Unico, Inc.
Charles C. Cottrell, North American Insulation Manufacturers Association
Maddie Dunlap, West Coast Advisors
Rob Neenan, California Food Producers
Tom Bower, Foster Farms
Tod O'Connor, CLEAResult
Gregory A. Partch, California State Pipe Trades Council
Lori Schiavo, RSES
Sam Wade, California Air Resources Board
Bonnie Holmes-Gen, American Lung Association

There being no further business, the meeting was adjourned.

Respectfully submitted,

CODY GOLDTHRITE
Secretariat