

COMMISSION EN BANC HEARING¹

2022 Affordability Rulemaking En Banc: Evaluating Innovative Proposals for Cost Containment and Customer Protection

February 28, 2022 – 9:30 a.m. to 5:15 p.m.

March 1, 2022 – 10 a.m. to 3:15 p.m.



The California Public Utilities Commission (CPUC) will hold an Affordability Proceeding Phase 3 *En Banc* hearing on February 28 and March 1, 2022. The *En Banc* hearing will assemble a diverse panel of experts from academia, industry, environmental justice, and consumer advocacy to consider issues related to Rulemaking 18-07-006 and proposals to limit and/or mitigate future electricity and natural gas rate increases. A non-exhaustive list of proposals is included with each panel below.

While a quorum of Commissioners may be present at the *En Banc* hearing, no vote or action will be taken on any agenda item.

Webcast: <https://www.adminmonitor.com/ca/cpuc/>

Public Comment: Toll-Free: 800-857-1917, Public Code: 1673482#

Spanish Translation Public Comment: Toll-Free: 800-857-1917, Public Code: 9431214#

Members of the public may submit informal written comments to CostsEnBanc@cpuc.ca.gov.

Reasonable Accommodations: If specialized accommodations are needed to attend, such as non-English or sign language interpreters, please contact the CPUC's Public Advisor's Office at public.advisor@cpuc.ca.gov or toll free at 866-849-8390 no later than February 21, 2022.

¹ This is a public hearing under the Commission's Rule of Practice and Procedure, Rule 8.1(c)(3).



California Public
Utilities Commission

505 Van Ness Ave.
San Francisco, CA 94102

415-703-2782
800-848-5580 (Toll Free)

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MONDAY, FEBRUARY 28, 2022

9:30 – 10:30a

Welcome and Introductions

- CPUC Commissioner Darcie Houck and President Alice Reynolds
- Assemblymember Eduardo Garcia, Chair, Utilities and Energy Committee
- California Air Resources Board Chair Liane Randolph
- California Energy Commission (CEC) Chair David Hochschild and Commissioner Patty Monahan
- CPUC Commissioner Genevieve Shiroma introduces featured speaker Abigail Solis.
- Abigail Solis, Manager of Sustainable Energy Solutions, Self-Help Enterprises

10:30 – 10:40a

Staff Overview of Affordability Proposal Evaluation Criteria

Review of Energy Division's six proposed criteria for evaluating Affordability Proceeding Phase III blue sky proposals.

Staff Presenter:

- Jack Chang, Regulatory Analyst, Electric Rates, Energy Division

10:40a – 12:10p

Panel One: Environmental and Social Justice Considerations

This panel will examine Environmental & Social Justice considerations for areas of affordability concern and assess the meaningful geographic correlation between areas with historically low incomes and higher emissions. Questions to be considered include: Which specific policy tools and progressive customer protections should the Commission consider in this phase to create opportunities for greater equity and participation as we increase electrification? Would these proposed actions result in cost shifting between ratepayer classes/categories? Would these proposed actions advance environmental justice and the State's equity goals? How can we incorporate carbon reduction and air quality measurements into alternative rate and bill impact analyses? Which risks or barriers exist in implementing meaningful solutions in this area?

Proposals include:

1. Target policy changes such as rate design, baseline usage allocation, marketing, education and outreach and EV infrastructure in areas suffering air quality problems.
2. Replace ratepayer subsidies with regulatory mandates.
3. Prioritize vulnerable communities for baseline and rate adjustments.
4. Percent of income payment plans with remainder of bills publicly subsidized.

Moderator:

Kathleen Yip, Energy Advisor to Commissioner Darcie Houck

Panelists:

- Arjun Makhijani, President, Institute for Energy and Environmental Research, and Energy Expert for the Just Solutions Collective
- Tim O'Connor, Senior Director and Senior Attorney, Energy Transition Strategy, Environmental Defense Fund
- Jana Ganion, Sustainability and Government Affairs Director, Blue Lake Rancheria
- Justin Bogda, Legal Fellow, California Environmental Justice Alliance

12:10 – 1:00p

Lunch Break

1:00 – 2:30p

Panel Two: Non-Ratepayer Sources of Funding

This panel will address categories of IOU spending (e.g., wildfire mitigation plans, electric vehicle charging infrastructure, public purpose programs) that might be recovered via the General Fund or other sources. Questions to be considered include: How could these non-ratepayer funding sources address income equality and mitigate rising customer bills? What are the inherent policy tradeoffs, statutory hurdles and political risks?

Proposals include:

1. Move wildfire mitigation costs to the General Fund.
2. Pay for building electrification with point-of-sale requirements when buildings and homes are bought and sold.
3. State ownership and financing of transmission infrastructure.
4. Adopt wildfire mitigation surcharges for customers in Tier 3 fire threat areas.
5. Approve utility self-insurance for wildfire-related liabilities.
6. Pay for transportation electrification costs through a gasoline charge.

Moderator: Grant Mack, Director, CPUC Government Affairs

Panelists:

- Mark Toney, Director, Executive Director, The Utility Reform Network
- Michael Wara, Director, Climate and Energy Policy Program, Woods Institute for the Environment, Stanford University
- Melissa Brandt, Vice President of Public Policy and Deputy General Counsel, East Bay Community Energy
- Scott Crider, Senior Vice President of Customer Services and External Affairs, San Diego Gas & Electric
- Catherine Yap, Principal, Barkovich & Yap

2:30 – 4:30p

Panel Three: Electric Ratemaking Reform Proposals and Considerations

This panel will examine concrete ratemaking proposals and reforms to contain utility cost and rate growth and discuss the long-term outlook for rates and bills in the transition to electrification. Questions to be addressed include: Which proposals should be the highest priority for the CPUC, and why? How can the affordability metrics and tools (Cost & Rate Trackers, Affordability Ratio Calculator) be leveraged for prioritizing proposals and their implementation schedule?

Proposals include:

1. Income-graduated fixed charge.
2. Revenue requirement budget scenarios.
3. Capacity or kWh charge proposals on DER imports/exports.
4. Reduce use of IOU balancing accounts.
5. Eliminate the fixed energy price option for must-take contracts with qualifying facilities.
6. Allow IOUs more flexibility in selling renewable energy credits.
7. Implement additional controls on increasing transmission costs.
8. GRC phase I anchor bias reduction and test year CPI-based caps.
9. Reduce IOUs' authorized Return on Equity.

Moderators: Paul Phillips and Achintya Madduri, Retail Rates, Energy Division

Panelists:

- Mohit Chhabra, Senior Scientist, Climate & Clean Energy Program, Natural Resources Defense Council
- Jennifer Dowdell, Senior Policy Expert, The Utility Reform Network
- Mark LeBel, Associate, Regulatory Assistance Project
- Meredith Fowlie, Faculty Director, Energy Institute at Haas, UC Berkeley
- Frank Wolak, Director, Program on Energy and Sustainable Development, Stanford University
- Brad Heavner, Policy Director, California Solar & Storage Association
- Michael Campbell, Program Manager, Electric Pricing and Customer Programs, Public Advocates Office
- Robert Thomas, Director of Pricing Strategy and Rates, Southern California Edison
- Robert Kenney, Senior Vice President of Regulatory and External Affairs, Pacific Gas and Electric

4:30 – 5:00p

Public Comment Period

To make a public comment, please dial 1-800-857-1917, passcode 1673482#, then press StarOne on your keypad to connect with our operator who will put you in the queue. If you wish to cancel, press StarTwo.

For Spanish translation, please dial 1-800-857-1917 and enter passcode 9431214#.

5:00 – 5:15p

Closing Remarks from CPUC Commissioner Shiroma and CEC Commissioner J. Andrew McAllister



TUESDAY, MARCH 1, 2022

10:00 – 10:20a

Opening Remarks from Senator Ben Hueso - Chair of Energy, Utilities and Communications Committee, CPUC Commissioner Clifford Rechtschaffen, and CEC Vice Chair Siva Gunda

10:20a – 12:10p

Gas Ratemaking Strategies and Reform Proposals for Ratepayer Protections Amid Electrification Scenarios

This panel will discuss potential core gas customer rate reforms and the inclusion of gas transition and infrastructure cost recovery in electric rate considerations. The panel will also address the scope of the cost containment challenges under alternative transportation and building electrification scenarios. Questions to be considered include: Which policies and cost management strategies should be considered to minimize affordability impacts to low-income customers? Which rate designs, on-bill financing, or other creative solutions should we be considering to mitigate rate and bill impacts?

Proposals include:

1. Authorize utilities to deploy capital and recover cost for building decarbonization upgrades via tariffed on-bill structures that enable participation regardless of income, credit score, or renter status.
2. Rate or infrastructure planning mechanisms to avoid excessive gas infrastructure costs falling disproportionately on residential customers who cannot electrify.
3. Determine if electrification warrants securitization and/or accelerated depreciation of assets.
4. Renewable Balancing Services proposal.
5. Evaluate natural gas rates and affordability in coordination with the Long-Term Gas Planning Rulemaking.
6. Determine how to efficiently prune the gas system while providing safety.

Moderators: Dorothy Duda, Program Manager, Electric Cost, Gas, and Market Structure, Energy Division; Jean Spencer, Supervisor, Natural Gas Policy and Reliability, Energy Division.

Panelists:

- Merrian Borgeson, Senior Scientist, Climate & Clean Energy Program, Natural Resources Defense Council
 - Michael Colvin, Director, California Energy Program, Environmental Defense Fund
 - Bruce Mast, Principal, Ardena Energy
 - Mark Pocta, Program Manager, Energy Cost of Service and Natural Gas Branch, Public Advocates Office
 - Despina Niehaus, Director, Strategic Planning, Southern California Gas
 - David Sawaya, Senior Manager, Decarbonization Strategies, Pacific Gas and Electric
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12:10 – 1:00p

Lunch Break

1:00 – 2:30p

Round Table Discussion on Integrated Strategies for Addressing Electric and Gas Sector Affordability Issues

This round table discussion with stakeholders and industry principals will highlight critical observations, insights and perspectives on the gas and electric industry affordability proposals discussed over the course of the two-day en banc. Questions to be considered include: What are the most compelling and impactful blue sky proposals and why? How should affordability, equity and infrastructure concerns be weighed?

Moderators: Commissioner Darcie Houck

Panelists:

- Merrian Borgeson, Senior Scientist, Climate & Clean Energy Program, Natural Resources Defense Council
 - Gabriela Sandoval, Director, Race and Equity Policy, The Utility Reform Network
 - Brad Heavner, Policy Director, California Solar and Storage Association
 - Rachael Koss, Counsel, Coalition of California Utility Employees
 - Melissa Kasnitz, Legal Director, Center for Accessible Technology
 - Carla Peterman, Executive Vice President, Corporate Affairs, Pacific Gas and Electric
 - Michael Backstrom, Vice President, Regulatory Affairs, Southern California Edison
 - Dan Skopec, Senior Vice President of State Government Affairs and Chief Regulatory Officer, Southern California Gas and San Diego Gas & Electric
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2:30 – 3:00p

Public Comment Period

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3:00 – 3:15p

Closing Remarks from Commissioner Houck

PARTICIPANT BIOS

MICHAEL BACKSTROM is vice president of Regulatory Policy for Southern California Edison (SCE), one of the nation's largest electric utilities. He leads the analysis of proposed energy and environmental policies, development and execution of state and federal regulatory engagement strategies, pricing and rate design development, and case management of key energy policy proceedings. Backstrom also oversees the strategy and regulatory affairs operating unit on an interim basis. Backstrom joined SCE in 2005 as an attorney in the legal department, responsible for regulatory proceedings before the CPUC. He has held several leadership positions, such as managing director of Energy and Environmental Policy, director of Customer Experience and director of the Office of the CEO. In addition, he was a manager of federal policy in our Washington, D.C., office. Before SCE, Backstrom was an associate in the Los Angeles office of Howrey, LLP, where his practice focused on commercial litigation. Backstrom currently serves as a board member of the Alliance for Transportation Electrification and executive committee member of the Los Angeles Economic Development Corporation. He earned a bachelor's degree in English from Pepperdine University and a juris doctor from the University of Southern California.

JUSTIN BOGDA is a Legal Fellow with Communities for a Better Environment, where he works on a variety of energy and equity issues including resource procurement and electricity planning in statewide proceedings, building decarbonization, and oil extraction. Justin recently graduated from Harvard Law School, where he focused on administrative and environmental law while providing legal advocacy for immigrant communities. Justin believes that building community power is essential to finding new and equitable solutions to pressing issues like homelessness and climate change.

MERRIAN BORGESON is a Senior Scientist at the Natural Resources Defense Council who champions stronger climate policies at the state, regional, and national levels. Prior to joining NRDC, she worked as a team leader at Lawrence Berkeley National Laboratory. She holds a bachelor's degree from Stanford University, a master's from the University of California, Berkeley, Energy and Resources Group; and an MBA from Berkeley's Haas School of Business.

As Vice President of Public Policy and Deputy General Counsel, **MELISSA BRANDT** leads East Bay Community Energy's involvement in California and federal legislative matters that impact EBCE. She oversees EBCE's participation in state regulatory proceedings on strategic issues that affect

EBCE. Melissa has fifteen years of experience in the energy industry. Prior to joining EBCE, Melissa managed a regulatory team at PG&E. She previously led greenhouse gas commercial strategy and cap-and-trade procurement efforts and negotiated long-term electric power purchase agreements, as well as first-of-their-kind carbon offset agreements. She began her career in the federal government as a Presidential Management Fellow at the Bureau of Land Management and the State Department, and as a budget analyst at the Office of Management and Budget. Melissa holds a B.A. in Environmental Sciences from U.C. Berkeley, a Juris Doctor from Columbia University, and a Master of Public Administration from Harvard's Kennedy School of Government. She is a member of the State Bar of California.

Since October 2012, **MICHAEL CAMPBELL** has been the Program Manager of the Electricity Pricing and Customer Programs branch at the Public Advocates Office at the CPUC. Mike's branch is responsible for advocating on the behalf of California's small consumers at the CPUC's public proceedings on matters related to electric rate design and customer programs such as demand response, distributed generation, low income, and energy efficiency. From 2008 through 2012, Mike was the Director of San Francisco's Community Choice Aggregation (CCA) provider, developing a program to offer San Franciscans the choice of a 100% renewable energy product. From 2005 to 2008, Mike worked at Pacific Gas & Electric, managing issues related to demand response, low-income programs, and energy efficiency. From 2000 through 2005, Mike worked in a variety of roles at the CPUC, including energy efficiency, resource adequacy, transmission siting, generation procurement, and general rate cases. He also spent two years as Energy Advisor to Commissioner Lynch, providing policy analysis for a range of regulatory and customer advocacy issues. A graduate of UC Davis in Economics, Mike earned his Master of Public Administration at Syracuse University with a focus on energy policy.

JACK CHANG is a regulatory analyst with the CPUC's Retail Rates and Renewable Gas teams. He previously worked with the CPUC's research and development team helping to oversee natural gas and EPIC R&D programs. Jack worked for two decades as a journalist in California, Latin America, and China for organizations such as The Associated Press, The Sacramento Bee, and the McClatchy Washington bureau. A native of Southern California, he earned his bachelor's degree in English from UC Berkeley, a master's degree in journalism from Northwestern University and master's degrees in energy and resources and public policy from UC Berkeley.

MOHIT CHHABRA is a senior scientist at the Natural Resources Defense Council and focuses on affecting policy to accelerate the transition to a sustainable and clean energy future. He provides analysis and strategic guidance to policymakers and other stakeholders at the state, regional, and national levels. Mohit is currently working on developing cost-efficient pathways to reduce greenhouse gas emissions from California's rapidly transforming electric grid. Mohit has an extensive background in energy conservation analysis. He holds a master's in civil environmental and architectural engineering from the University of Colorado, Boulder and a bachelor's in mechanical engineering from the University of Pune in India.

MICHAEL COLVIN is the Director of Legislative and Regulatory Affairs, California Energy Program at Environmental Defense Fund. Based out of EDF's San Francisco office, Michael focuses on building decarbonization, gas utility business models, wholesale electricity markets and transportation electrification matters. Across each of these issues, Michael's focuses on minimizing investment risk and aligning utility incentives with affordable, clean and safe energy services. Prior to joining EDF, Michael spent 10 years at the California Public Utilities Commission working on various energy and utility safety matters. Michael was energy advisor to former Commissioners Mark J. Ferron and Catherine J.K. Sandoval. Michael holds a Masters in Public Policy and a Bachelors of Science in Environmental Economics, both from the University of California, Berkeley. More information can be found at <http://www.edf.org/>

SCOTT B. CRIDER is the senior vice president of customer services and external affairs for San Diego Gas & Electric (SDG&E), one of Sempra's California regulated utilities. In this role, Crider oversees public affairs, community relations, communications as well as all customer-related activities for SDG&E, including customer services, digital channel management and strategy, customer programs, field and meter operations, revenue cycle activities, and electric rates.

JENNIFER DOWDELL is a Senior Policy Expert at The Utility Reform Network (TURN) where she focuses on financial and regulatory cost recovery issues. Since 1984, Jennifer has worked in utilities, energy, independent power, and related financial services, including various leadership roles in regulation and finance. Her formal education includes a BS in Mechanical Engineering from Purdue University, an MBA in Economics and Finance from the University of Chicago, and a CFA Charter. She is a licensed California CPA.

DOROTHY DUDA is Manager Energy Costs and Retail Choice in Energy Division, and she managed Natural Gas Policy, Reliability,

Costs and Rates for the last five years. Her team of analysts and engineers provides advisory support to CPUC decisionmakers on electric and gas utility rate matters including general rate cases, fuel and purchased power cases, pipeline safety investments, wildfire mitigation, and nuclear cost matters. Dorothy served 16 years as administrative law judge at the CPUC handling major telecommunications and energy cases, including four years as Assistant Chief Judge. Dorothy received her bachelor's degree in Government & Public Policy from Pomona College and an MBA from the Haas School of Business at UC Berkeley.

MEREDITH FOWLIE is a Professor in the Department of Agricultural and Resource Economics and holds the Class of 1935 Endowed Chair in Energy at UC Berkeley. She is a faculty director at the Energy Institute at Haas and co-directs the Environmental and Energy Economics Program at the National Bureau of Economic Research. Fowlie has worked extensively on the economics of energy markets and the environment. Her research investigates market-based environmental regulations, the economics of air pollution, electricity market regulation, the economics of energy efficiency, and incomplete GHG regulations. She currently serves as a Governor-appointed member of California's Independent Emissions Market Advisory Committee. She is a member of the Economic Advisory Council for Environmental Defense Fund and serves on the advisory council to the Brookings Institution Center on Regulation and Markets. Her research has appeared in the American Economic Review, the Journal of Political Economy, the Quarterly Journal of Economics, and the Review of Economic Studies, among other leading journals.

In her role for the Blue Lake Rancheria tribal government, **JANA GANION** helps design strategies for decarbonized resilience, including strategic planning in climate mitigation and adaptation, emergency preparedness, and economic enterprise development. Her project deployments include low-carbon microgrids and other distributed energy resources, electrified buildings and transportation, smart water grids, telecommunications, and other lifeline sectors. She is current (2022) co-chair of the U.S. Department of Energy's Indian Country Energy and Infrastructure Working Group and serves on the U.S. Bureau of Ocean Energy Management California Intergovernmental Renewable Energy Task Force, California's Integrated Climate Adaptation and Resilience (ICARP) Technical Advisory Committee, and California SB 350 Disadvantaged Communities Advisory Group for the California Public Utilities Commission and California Energy Commission.

EDUARDO GARCIA proudly represents California's 56th Assembly District and is the current chair of of the Assembly Committee on Utilities and Energy. Garcia has made a point to champion measures that would increase access to healthcare, bring

environmental and economic relief to the areas of the Coachella and Imperial Valleys, such as the Salton Sea and New River, but also provide workforce training and financial assistance to small businesses in the district. Included in this string of success was SB 32 and AB 197, the historic climate change package that established landmark state emission reduction mandate, boosted oversight and transparency of the Air Resources Board while constructing the framework to ensure future climate policies prioritize investments into disadvantaged communities that are most affected by pollution. A graduate of local public schools, Garcia attended Coachella Valley High School and the University of California, Riverside. He also completed the “Senior Executives in State and Local Government” Public Administration program from the John F. Kennedy School of Government at Harvard University and earned a Master’s Degree from the University of Southern California School of Policy, Planning and Development. Garcia was first elected to the Coachella City Council in November 2004. In 2006, at the age of 29, he became Coachella’s first elected Mayor. He is a proud father, husband and life-long resident of the Coachella Valley.

Commissioner **SIVA GUNDA** is serving his first term on the California Energy Commission. Governor Gavin Newsom appointed Gunda in February 2021 to serve as the Energy Commission’s public member. Gunda was later appointed to Vice Chair in September 2021. He is the lead commissioner on energy assessments. Gunda served as manager of the Demand Analysis Office and deputy director for the Energy Commission’s Energy Assessments Division. The division forecasts and assesses energy demands and supplies. Before joining the Energy Commission, he served in a variety of capacities at the Energy Efficiency Institute at the University of California, Davis, including as the director of research, where he directed the institute’s operations and research portfolio. He holds a master of science in mechanical and aeronautical engineering from Utah State University. Gunda is pursuing his Ph.D. in mechanical engineering from UC Davis. He is a serious cricket fan and former captain of his college team. He lives with his family in Davis.

BRAD HEAVNER, policy director of the California Solar and Storage Association, has over 20 years of clean energy advocacy experience with statewide and national organizations. He is the author of dozens of research reports written for statewide policy campaigns across the country. He was the architect of the nation’s strictest rate policy on existing coal-fired power plants, the Healthy Air Act, and has led initiatives for low-emission vehicle standards, greenhouse gas reduction frameworks, renewable energy mandates, and many other clean energy policies.

DAVID HOCHSCHILD was appointed chair of the California Energy Commission by Governor Gavin Newsom in February 2019. He fills the environmental position on the five-member Commission

where four of the five members are required by law to have professional training in specific areas - engineering or physical science, environmental protection, economics, and law. Chair Hochschild’s career has spanned public service, environmental advocacy, and the private sector. He first got involved in the solar energy field in 2001 in San Francisco as a special assistant to Mayor Willie Brown where Chair Hochschild launched a citywide \$100 million initiative to put solar panels on public buildings. He also cofounded the Vote Solar Initiative, a 60,000-member advocacy organization promoting solar policies at the local, state, and federal levels. He was executive director of a national consortium of leading solar manufacturers and worked for five years at Solaria, a solar company in Silicon Valley. From 2007 to 2008, he served as a commissioner at the San Francisco Public Utilities Commission. For his work to advance clean energy, Chair Hochschild was awarded the Sierra Club’s Trailblazer Award, the American Lung Association’s Clean Air Hero Award, and the U.S. Department of Energy’s Million Solar Roof True Champion Award. Chair Hochschild holds a bachelor of arts from Swarthmore College and a master of public policy from the John F. Kennedy School of Government at Harvard University. He also was a Coro Fellow in Public Affairs.

Commissioner **DARCIE L. HOUCK** was appointed to the CPUC by Governor Gavin Newsom on Feb. 9, 2021. She formerly served as Chief Counsel for the California Energy Commission since 2019. Commissioner Houck was an Administrative Law Judge at the CPUC from 2016 to 2019, a Partner at Fredericks Peebles & Morgan from 2005 to 2016, and Staff Counsel and Policy Advisor at the California Energy Commission from 2000 to 2005. Commissioner Houck is an expert in nuclear decommissioning, environmental equity, and safety policy. She has an extensive background representing Native American tribes throughout the country on matters involving energy, natural resources, land claims, and water rights, among others. Commissioner Houck is a member of the California Indian Law Association, California Lawyers Association, Schwartz-Levi Inn of Court, Women Lead and the Association of Women in Water, Energy, and Environment. She earned a law degree from the University of California, where she also earned a Master of Science in community development. She is the assigned commissioner for the CPUC’s Affordability proceeding, R.18-07-006.

BEN HUESO has served as California State Senator for the 40th District since 2013 and chairs both the Senate Committee on Energy, Utilities and Communications, and the Senate Select Committee on California-Mexico Cooperation. Additionally, he serves as member of the Senate Committees on Banking and Financial Institutions, Insurance, Natural Resources and Water, and Governmental Organization. He is a member of the California Latino Legislative Caucus and served as chair from 2017 to 2018. During his tenure in the legislature, Sen. Hueso

has worked extensively on initiatives regarding water quality, consumer protection, public safety and job creation. Prior to being elected to the State Senate, Sen. Hueso served in the California State Assembly from 2010 to 2013. He held his first elected position as San Diego City Councilmember for the 8th District from 2006 to 2010. During his tenure, he was elected Council President from 2008 to 2010 due to his strong leadership and consensus-building skills. He also served as Commissioner for the California Coastal Commission, as well as a board member for the San Diego Association of Governments and the League of California Cities. Before elected office, he worked for the San Diego City Redevelopment Agency and was a small business owner. Sen. Hueso holds a Bachelor of Arts degree from UCLA, as well as studied at the University of Odessa in Ukraine and completed post-graduate work at San Diego State University. He lives in Logan Heights with his four sons. He is a music aficionado and, in his spare time, is an avid singer and pianist.

MELISSA W. KASNITZ is the Legal Director at the Center for Accessible Technology. She has been representing the disability community before the CPUC since 2004. She joined the Center for Accessible Technology in 2011; prior to her work at CforAT, she served as the Managing Attorney for Disability Rights Advocates where she first began her advocacy at the CPUC. At the CPUC, Ms. Kasnitz is a consistent presence as an advocate for her constituency, addressing the needs of consumers with disabilities and medical needs, as well as other vulnerable customer groups, across the regulated industries and striving to ensure the best outcomes on their behalf. She has received regular acknowledgement as a dedicated and persistent advocate, who will zealously represent her community's interests and who will also negotiate in order to obtain reasonable resolutions for all parties in various proceedings. Ms. Kasnitz received her B.A. from Yale University in 1989 and her J.D. from Berkeley Law (Boalt Hall) in 1992. She has been representing the disability community since 1997, engaging in class action litigation in state and federal court prior to and in addition to her work before the CPUC. She is admitted to practice in all courts in California, the U.S. District Courts for the Northern, Eastern and Central Districts of California, the Ninth Circuit and the U.S. Supreme Court.

ROBERT S. KENNEY is Senior Vice President of Regulatory and External Affairs. In this role, he is responsible for executive management and strategic guidance of PG&E's local governmental affairs and community relations and oversees the PG&E Foundation and PG&E's charitable giving. Robert is also responsible for executive management and strategic guidance of all aspects of PG&E's interactions with the California Public Utilities Commission (CPUC) and the Federal Energy

Regulatory Commission (FERC), including all regulatory filings and proceedings, ensuring compliance with regulatory mandates, and facilitating positive regulatory outcomes. Robert leads teams of professionals responsible for developing and implementing regulatory and legislative strategy, and strategic engagement with external stakeholders, supporting the implementation of PG&E's business objectives. Robert joined PG&E in 2015 as Vice President of Regulatory Relations. Prior to joining PG&E, Robert was Chairman of the Missouri Public Service Commission (PSC), where he led a 190-person agency, presiding over numerous complex proceedings deciding rate increases, mergers and acquisitions, transmission siting, resource adequacy, and implementation of Missouri's Renewable Energy Standard and Energy Efficiency Investment Act. During his tenure, he emerged as a nationally recognized leader in public utility law and regulation and public policy development and implementation, serving on the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC) and as President of the Organization of MISO States (OMS). While at the Missouri PSC, Robert led efforts to institute best practices in consumer education and outreach and to enhance legal education related to public utility law and regulation. Prior to his appointment to the Missouri PSC, Robert served as Chief of Staff to the Missouri Attorney General. Previously, Robert was a shareholder at the Polsinelli law firm, where he practiced in the commercial and business litigation practice group. Robert remains committed to public service and civic engagement, serving on the board of the Museum of the African Diaspora (MoAD) in San Francisco. He also sits on the board of the Silicon Valley Leadership Group and is a member of the American Association for Blacks in Energy. Robert holds a bachelor's degree in political science from Hampton University and a law degree from Saint Louis University School of Law.

RACHAEL KOSS is an attorney in the South San Francisco law firm of Adams Broadwell Joseph & Cardozo. She practices in the areas of energy and utility law, along with environmental law. She represents the Coalition of California Utility Employees, a coalition of IBEW unions representing employees of almost all private and publicly owned electric utilities in California. On behalf of CUE and other labor clients, she has actively participated before the California Public Utilities Commission on matters related to the electric and natural gas industry including electric and gas safety and reliability, worker safety and workforce standards, rate cases, transportation electrification, energy resource planning and procurement, building decarbonization, wildfire, climate change, and resiliency and distributed energy resource integration. She also participates in crafting legislation affecting the utility industry and other energy issues. Before joining ABJC in 2008, she was a law clerk for the Center on Race, Poverty and the Environment.

MARK LEBEL is an Associate at the Regulatory Assistance Project, a non-profit that works with policymakers and stakeholders across the world to tackle complex regulatory challenges. Mr. LeBel's work focuses on rate design and compensation for distributed energy resources, but also includes broader regulatory reforms for gas and electric utilities. He is the lead author of the recently released report "Smart Rate Design for Distributed Energy Resources" for the Michigan Public Service Commission, a co-author of the policy brief, "Demand Charges: What Are They Good For?"; and he is the editor of a book on electric utility cost allocation. Before joining RAP, Mr. LeBel was a staff attorney at Acadia Center, working on electric utility reform and broader clean energy issues across the Northeast. During this time, he participated extensively in a wide range of utility policy dockets, notably including the Value of Distributed Energy Resources proceeding in New York and grid modernization proceedings in several states. Mr. LeBel holds a Juris Doctor with honors from New York University School of Law and a bachelor's degree with honors in applied mathematics with a focus in economics from Harvard College.

GRANT MACK currently serves as the Director of Governmental Affairs at the CPUC. In this position, Grant leads a high performing team of analysts in the Office of Governmental Affairs (OGA) who are charged with facilitating the CPUC's interaction with the Legislature, providing expert policy advice to Commissioner offices, management and staff, informing and lending technical assistance to legislative staff, and engaging in the legislative and budget processes to ensure that the organization's perspective is represented in active legislative and budget discussions. Prior to serving in his current role, Grant served as the Senior Legislative Consultant for electricity and gas policy matters in OGA. Grant also served as an Energy Policy Advisor and then Chief Policy Advisor to Chair Robert B. Weisenmiller of the California Energy Commission (CEC) where he advised the Chair on a portfolio of energy policy matters, including electric and gas demand-side management strategies, energy research and development program coordination with the U.S. Department of Energy and the Advanced Research Projects Agency – Energy, the implementation of the California Clean Energy Jobs Act (Proposition 39, 2012) K-12 program and clean energy policy collaboration with China to further then Governor Edmund G. Brown Jr.'s commitment to address global climate change. Prior to officially joining the CEC, Grant served as an Executive Fellow to Chair Weisenmiller, worked at the Center for Sustainable Energy as a Policy and Regulatory Analyst and served as the President/CEO of the Associated Students at San Diego State University, a \$22 million student-directed non-profit corporation. Grant received a Masters in Public Policy and Administration from California State University, Sacramento and a Bachelor of Arts in Political Science and History from San Diego State University.

ACHINTYA MADDURI is an analyst on the CPUC'S Retail Rates team working on the load management and dynamic pricing rulemaking, among other key rate design projects. Achintya received a PhD in Electrical Engineering at the University of California, Berkeley where his dissertation research explored the creation of a smart and scalable solar microgrid to efficiently electrify rural unelectrified regions. Prior to joining the CPUC, he worked as a Global Security System Analyst at Lawrence Livermore National Laboratory where he conducted research focused on making national critical infrastructure resilient against cyber and climate threats. During the 2018-2019 California Legislative Session, he was placed as a committee consultant in the California Assembly Natural Resources Committee through the CCST Science Policy Fellows Program. He also worked for three years as a senior engineer at Amber Kinetics Inc., a flywheel-based energy storage company in Union City. Achintya received his MS in Applied Ocean Science from the Scripps Institute of Oceanography at UC San Diego, and his BS in Mechanical Engineering from Rice University.

ARJUN MAKHIJANI is President of the Institute for Energy and Environmental Research in Takoma Park, Maryland, and energy expert for the Just Solutions Collective. He earned his Ph.D. from the Department of Electrical Engineering and Computer Sciences at the University of California, Berkeley in 1972. He has worked on the technical, economic, environmental, and policy aspects of energy for more than 50 years, including as principal author of the first assessment of the energy efficiency potential of the US economy (1972) and more recently, *Prosperous, Renewable Maryland* (2016) which includes hour-by-hour modeling of the Maryland electricity sector and an analysis of energy justice. His main current energy work relates to the integration of energy equity with the energy transition to a decarbonized energy sector.

BRUCE MAST, principal at Ardenna Energy, LLC, is a nationally recognized thought leader focused on leveraging market forces to accelerate decarbonization investments behind the customer meter. His work has spanned program and policy development around green building labeling, the market value of time of sale disclosures, HVAC contractor business models, and pay-for-performance programs. He is a co-author of the Building Decarbonization Coalition white paper *Towards an Accessible Financing Solution*. Mr. Mast presently leads the TECH Clean California initiative's tariffed on-bill investment pilot.

Commissioner **ANDREW MCALLISTER** is serving his second term on the California Energy Commission. At the Energy Commission, he leads the policy area of energy efficiency, including the Building Energy Efficiency Standards, appliance efficiency, and load management and flexibility. More broadly, he is focused on enabling modern, data-rich analytical tools to support strong

clean energy policy development and program implementation. Commissioner McAllister has worked on energy deployment and policy since the early 1990s. He administered two of California's signature renewable energy programs, developed and operated energy efficiency programs for utilities, and conducted a broad range of policy-related research for California and the federal government. He is a board member and immediate past board chair of the National Association of State Energy Officials, and a board member of the Alliance to Save Energy. Before joining the Energy Commission, he was managing director at the California Center for Sustainable Energy. He worked with the National Rural Electric Cooperative Association International, Ltd. in Central and South America, Southeast Asia, and Africa on renewable generation, load management, utility planning, and remote power projects. He was a project manager at an energy-consulting firm and an energy efficiency analyst at Lawrence Berkeley National Laboratory. Commissioner McAllister holds a master of science and a Ph.D. from the Energy and Resources Group at the University of California, Berkeley and a bachelor of arts from Dartmouth College. He served as a Peace Corps volunteer.

In April 2019, Governor Gavin Newsom appointed **PATTY MONAHAN** to be one of the five commissioners on the California Energy Commission. She serves in the Energy Commission's Science/Engineering position and is the lead commissioner on transportation. She has dedicated her career toward advancing clean energy technologies and cutting harmful pollution, with a focus on equity. Before joining the Energy Commission, she served as the transportation program director at the Energy Foundation, where she guided campaigns across the United States that advanced electric transportation and more efficient vehicles. She worked for the Union of Concerned Scientists in several roles, including director of the California office and deputy director of clean vehicles. She also worked at the U.S. Environmental Protection Agency, Lawrence Berkeley National Laboratory, and several energy-related consulting firms. Commissioner Monahan received a bachelor of science degree from UC Berkeley and holds a master's degree in energy analysis and policy from the University of Wisconsin, Madison.

DESPINA NIEHAUS is the Director of Strategic Planning for SoCalGas where she leads the analytical team advancing the company's business transformation and decarbonization strategy. Prior to joining SoCalGas, Despina held roles at SDG&E in Strategic Planning and Regulatory Affairs. Despina holds a BA in Government and Politics from the University of Maryland, and a JD from California Western School of Law. She is a member of the State Bar of California.

TIM O'CONNOR is a Senior Director and Senior Attorney in the Environmental Defense Fund's Energy Program where he currently leads the organization's strategy on energy decarbonization strategy in California. Focused broadly on developing solutions to reduce greenhouse gas emissions from transportation and buildings, Mr. O'Connor leads teams of experts to support the movement away from fossil fuels and towards optimal utilization of a decarbonized electricity system. Since joining EDF in 2007, Mr. O'Connor has been involved at local and state agencies on the interaction of natural gas and renewable energy integration, deployment of energy storage and electric vehicles, oil and gas production and delivery, cap-and-trade and transportation fuels. During this time, Mr. O'Connor has also managed EDF's participation in both state and federal courts on issues related to climate change, fuels and energy. Prior to joining EDF, Mr. O'Connor was a senior compliance inspector at heavy industrial facilities, including power plants and petroleum refineries in the San Francisco bay area. He holds a Master's Degree in Chemistry, Toxicology and Risk Assessment from Duke University and a J.D. from Golden Gate University with specializations in Environmental and Public Interest Law.

CARLA J. PETERMAN is Executive Vice President, Corporate Affairs and Chief Sustainability Officer for PG&E Corporation, the parent company of Pacific Gas and Electric Company. Peterman has spent her career focused on California's energy policy and regulatory landscape. At PG&E, she oversees the company's regulatory, legislative, sustainability, and charitable strategies, all focused on delivering for the customers and communities that PG&E serves in Northern and Central California. Prior to joining PG&E in 2021, Peterman served as Senior Vice President of Strategy and Regulatory Affairs at Southern California Edison. Before that she served a six-year term as a Commissioner of the California Public Utilities Commission (CPUC). A steadfast proponent of clean energy, at the CPUC Peterman led the adoption of the first utility energy storage mandate in the country, the approval of nearly \$1 billion of utility investments in electric vehicle charging infrastructure, the adoption of utility energy efficiency goals and business plans, and the implementation of California's Renewable Portfolio Standard. Before her CPUC appointment, Peterman served on the California Energy Commission, where she was the lead commissioner for renewables, transportation, and natural gas. She also is a former board member of The Utility Reform Network, an organization that represents consumers before the CPUC and California Legislature. In 2019, Governor Newsom appointed her to chair the Commission on Catastrophic Wildfire Cost and Recovery. She currently serves on the external advisory board for Sandia National Laboratories' Energy and Homeland Security Portfolio, and as a member of the Federal Reserve of San Francisco Economic Advisory Council. She has also served on various

other boards, including the National Association of Regulatory Utility Commissioners (NARUC), and NARUC's Energy Resources and Environment Committee (Vice-Chair). Peterman holds a BA from Howard University, a PhD in energy and resources from the University of California, Berkeley, and MS and MBA degrees from Oxford University, where she was a Rhodes Scholar.

PAUL PHILLIPS has significant advocacy and advisory experience in California energy and communications policy matters. He oversees the Retail Rates section in the CPUC Energy Division, evaluating statewide pricing strategies for an evolving grid, including the design and implementation of time of use, dynamic, and real time pricing to promote electrification and affordability. Earlier in his career, Paul focused on AB 32 implementation, wholesale communications market development, utility cost modeling, energy procurement, mergers & acquisitions, and academic consulting on electric market restructuring and the energy crisis. He later served as an energy advisor on renewable procurement, net energy metering, natural gas markets, and gas and electric rates. Paul holds an MPA in Business & Government Policy from the Harvard Kennedy School and a BA in Economics and English Literature from UCLA.

MARK POCTA is currently the Program Manager of the Energy Cost of Service and Natural Gas Branch in the Public Advocates Office at the CPUC. His primary focus is ratepayer advocacy in energy matters pertaining to energy general rate cases and natural gas policy. He has been a manager for 20 years with a staff of approximately 30 responsible for the review and analysis of all energy general rate cases filed at the Commission, and other various energy proceedings including: Cost of Capital, Catastrophic Event Memorandum Accounts; utility mergers, sales and acquisitions; Wildfire Mitigation Costs; Securitization of Wildfire Costs and Wildfire Claims. The branch also participates in natural gas procurement, policy, investigations and rulemakings, and cost allocation proceedings.

LIANE RANDOLPH has spent most of her career in public service, specializing in environmental law and policy, effective administration, and a commitment to transparency and public process. She was appointed Chair of the California Air Resources Board by Governor Gavin Newsom in December 2020. Starting in 2015, Chair Randolph served six years as a Commissioner at the CPUC and managed numerous decisions on energy efficiency, integrated energy resource planning, and regulation of transportation network companies, as well as spearheading significant Commission policy reforms. Prior to the CPUC, Randolph served from 2011 to 2014 as Deputy Secretary and General Counsel at the California Natural Resources Agency, where she worked on a wide variety of legal and policy issues, including

work on the Klamath Dam Removal agreement, CEQA guidelines, and the Agency's first Tribal Consultation Policy. Chair Randolph's first role with the State was as Chair of the California Fair Political Practices Commission from 2003 to 2007. Her work at the state level builds on experience with local government that she gained while practicing municipal law as a contract City Attorney for the Cities of San Leandro and Suisun City. Randolph earned a Juris Doctor degree from the University of California, Los Angeles School of Law and lives in Oakland with her husband and family. In her spare time she enjoys hiking, running, and reading.

CLIFF RECHTSCHAFFEN was appointed to the California Public Utilities Commission by Governor Jerry Brown in January 2017. At the CPUC his key areas of interest include decarbonization, environmental justice, enforcement, and improving the accessibility of Commission proceedings. Commissioner Rechtschaffen is lead Commissioner on the integrated resource management, building electrification, transportation electrification, Renewables Portfolio Standard, biomethane and renewable gas, supplier diversity, and several risk assessment and safety proceedings. Prior to joining the CPUC Commissioner Rechtschaffen served as a senior advisor to Governor Brown from 2011 to 2017, where he worked on climate, energy, and environmental issues, and special assistant attorney general in the California Attorney General's Office from 2007-2010. From 1993-2007, he taught environmental law & directed the environmental law program at Golden Gate University School of Law.

ALICE BUSCHING REYNOLDS was appointed to the CPUC as President by Governor Gavin Newsom on Nov. 22, 2021, effective Dec. 31, 2021. Prior to her appointment, President Reynolds served for three years as Governor Gavin Newsom's senior advisor for energy. From 2011 to January 2019, she served in the administration of Governor Edmund G. Brown Jr., most recently as the Governor's senior advisor for climate, the environment and energy, and previously as chief counsel and deputy secretary for law enforcement at the California Environmental Protection Agency. During her time at CalEPA, she coordinated statewide multi-agency environmental enforcement actions and led the creation of the agency's environmental justice task force and refinery safety task force. President Reynolds began her public service career in 2002, serving approximately 10 years as a deputy attorney general in the California Attorney General's Office, where she litigated cases involving protection of public trust lands, coastal resources and public access, and other environmental issues. Prior to entering public service, President Reynolds was a lawyer in private practice in San Francisco. President Reynolds holds a bachelor's degree from Stanford University and a juris doctor degree from Santa Clara University School of Law where she graduated magna cum laude.

GABRIELA SANDOVAL serves as Director of Race and Equity Policy for TURN – The Utility Reform Network – where she works with legal staff to apply a race equity lens to TURN’s work at the CPUC. She also works with community-based organizations throughout the state to build coalitions to improve broadband equity and access, increase energy equity and security, and protect consumer privacy. Before joining TURN, Gabriela was Research Director at the Insight Center for Community Economic Development, a national “think-and-do tank” in Oakland, where the focus of her work was the Closing the Racial Wealth Gap Initiative. Previously, Gabriela was a faculty member of the Department of Sociology at UC Santa Cruz. She also served as the academic coordinator for the first professional midwifery school in Mexico. She holds a Ph.D. in Sociology and a Masters in Regional Planning from Cornell University.

DAVID SAWAYA is the Senior Manager for Decarbonization Strategies at Pacific Gas and Electric Company (PG&E). This includes responsibility related to developing and implementing strategies for natural gas and electrification – buildings and transportation – to adapt PG&E’s business to a decarbonized future. Prior to this role, David worked on PG&E’s customer transportation electrification offerings and infrastructure activities as well as Federal and State policy and legislative matters. Before coming to PG&E, David worked on energy and technology policy and strategy at the World Bank, Ernst and Young, and the Organization for Economic Cooperation and Development (OECD).

GENEVIEVE SHIROMA was appointed to the CPUC by Governor Newsom on January 22, 2019. Prior to joining the CPUC, Commissioner Shiroma served as chair of the Agricultural Labor Relations Board, as a board member for the Sacramento Municipal Utility District, and as Chief of the Air Quality Branch at the California Air Resources Board. Commissioner Shiroma is presently the lead Commissioner for approximately 65 formal proceedings including the rulemakings over Microgrids and Resiliency, Transportation Network Companies, the LifeLine discount phone and broadband program, the California Alternate Rates for Energy and Energy Savings Assistance Program, the customer energy investment financing rulemaking, the Energy Efficiency rulemaking, and major general rate cases including for Southern California Edison, California American Water, among others. Commissioner Shiroma serves as the Commission’s representative on the Low Income Oversight Board, and is Co-Chair of multiple Commission committees and holds leadership positions at the National Association of Regulatory Utility Commissioners.

DAN SKOPEC is senior vice president of state government affairs and chief regulatory officer for San Diego Gas & Electric (SDG&E) and Southern California Gas Company (SoCalGas), Semptra’s

regulated California utilities. He is responsible for the company’s engagement with regulators and policymakers at the state, legislative and executive branch levels. Prior to joining SDG&E and SoCalGas in 2008, he served as undersecretary at the California Environmental Protection Agency, deputy cabinet secretary under California Gov. Arnold Schwarzenegger, and as a legislative aide in the U.S. House of Representatives. Skopec holds a master’s degree in international economics from The George Washington University and a bachelor’s degree in political science and European history from the University of California, San Diego. Skopec serves on the board of directors of the California Foundation on the Environment and the Economy and the California State Parks Foundation.

ABIGAIL SOLIS is the manager of the Sustainable Energy Solutions Department at Self-Help Enterprises. She oversees several community-based energy and clean transportation initiatives that provide low-income, historically overlooked communities with access to affordable energy options. She leads the Community Energy Navigator Team, a network of community-based leaders providing robust community engagement, enrollment, and technical assistance for the SJV DAC (Disadvantaged Communities) Pilot Projects, authorized by the CPUC. She helped to launch Miocar, the San Joaquin Valley’s first electric car-share program, which provides residents with affordable access to electric vehicles and charging stations. Born and raised in a DAC, she has a unique understanding of the various issues faced by low-income residents. She works to develop equitable programs and policies and to eliminate the barriers that prevent resources from reaching vulnerable communities. Abigail has experience planning and implementing energy, transportation, drinking water, and other infrastructure improvement projects. She is committed to elevating the needs of low-income communities at the statewide level while developing community-led solutions at the local level. Abigail received the 2021 Clean Energy Champion Hall of Fame Award from the California Energy Commission.

JEAN SPENCER is the supervisor of the Gas Policy and Reliability team in the Energy Division of the CPUC. For the past seven years she has been focused on the workings of the gas system, from infrastructure to rates to the interplay between gas and electricity. Prior to working at the CPUC, she spent 12 years as an editor at UC Berkeley’s Center for Latin American Studies and five years as a bilingual fifth grade teacher. She has a Master of Public Policy degree from UC Berkeley’s Goldman School of Public Policy.

MARK TONEY has served as Executive Director of TURN–The Utility Reform Network since 2008, aligning its legal, organizing, legislative and communication staff to win clean and safe energy, and high quality broadband and phone service that is available and affordable for all California residents, with a special focus

on low-income households, communities of color, immigrants, and rural communities. Mark is a gubernatorial appointee to the California State Bar Board of Trustees, and serves on the boards of National Whistleblower Center and California Shakespeare Theatre. Mark served as executive director of Center for Third World Organizing for four years, and for Direct Action for Rights & Equality for eight years. He holds a B.A. from Brown University and a Sociology Ph.D. from UC Berkeley, and his leadership has been recognized by the Kellogg National Leadership Fellowship, National Science Foundation Fellowship, Mother Jones Heroes for Hard Times, and Association for Applied and Clinical Sociology President's Award.

MICHAEL WARA is a lawyer and scholar focused on climate and energy policy. Wara is Director of the Climate and Energy Policy Program and a senior research scholar at the Stanford Woods Institute for the Environment, where he provides fact-based, bipartisan, technical, and legal assistance to policymakers engaged in the development of novel climate and energy law and regulation. Prior to joining Woods, Wara was an associate professor at Stanford Law School and an associate in Holland & Knight's government practice. He received his J.D. from Stanford Law School and his Ph.D. in Ocean Sciences from the University of California at Santa Cruz.

FRANK A. WOLAK is the Holbrook Working Professor of Commodity Price Studies in the Department of Economics and the Director of the Program on Energy and Sustainable Development at Stanford University. His research and teaching focuses on design, performance, and monitoring of energy and environmental markets in the United States and globally. From April 1998 to April 2011, he was Chair of the Market Surveillance Committee (MSC) of the California Independent System Operator, an independent market monitoring committee for California electricity supply industry. Wolak was also a member of the Emissions Market Advisory Committee (EMAC) for California's Market for Greenhouse Gas Emissions allowances from January 2012 to December 2014. This committee advised the California Air Resources Board on the design and monitoring of the state's cap-and-trade market for Greenhouse Gas Emissions allowances.

CATHERINE YAP has been consulting on matters pertaining to energy and regulated utilities for over three decades. She has evaluated utility operations, cost-of service requirements, allocation, rate design, and customer bill effects for natural gas, electric, and water utilities. For much of this time, Ms. Yap has represented ratepayer interests in rate and revenue requirement proceedings for electric and natural gas utilities before the CPUC for a variety of customer groups including large industrial customers, municipally-owned electric consumers of natural gas, and residential customers. Prior to this, Ms. Yap was employed for nine years by the CPUC where she worked as a manager responsible for cost of service, rate design, and economic studies for energy utilities in the first predecessor to the Public Advocates Office. She also worked as a supervisor responsible for evaluating the reasonableness of natural gas operations and prior to that as a regulatory analyst in the Policy Division. Ms. Yap has a B.A. in chemical physics from the University of California at Santa Cruz and a M.S. in Energy and Resources from the University of California at Berkeley.

KATHLEEN YIP is an Energy Advisor to Commissioner Houck. Prior to joining Commissioner Houck's office, she worked on energy equity issues in the CPUC's Energy Division. Before coming to the CPUC, she worked at a non-profit group linking clean transportation options with affordable housing. Other previous work includes zero emission vehicle and bus planning as a consultant, implementing clean mobility programs in low-income communities as a grad student, and advancing policies that speed commercialization of clean vehicles and fuels as a grant maker. Kathleen has a B.A. in Science and Technology Studies and an M.S. in Transportation Technology and Policy from University of California, Davis.