Dan Aas

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ENERGY AND ENVIRONMENTAL ECONOMICS, INC. San Francisco, CA
Director

Mr. Aas joined E3 in 2017 after ten years of work and study in energy and decarbonization policy including two graduate degrees, a Master of Public Policy and a Master of Arts in Energy and Resources, from the University of California, Berkeley. At E3, Mr. Aas focuses on climate and clean energy policies, with an emphasis on the future of natural gas utilities in a deeply decarbonized future. He has led projects focused on issues related to gas sector transitions on behalf of public and private clients across the country. Recently, Mr. Aas led E3's technical analysis of decarbonization pathways and regulatory modifications in support of a long-term gas planning proceeding at the Massachusetts Department of Public Utilities. Mr. Aas brings with him extensive knowledge of policy planning, development and implementation as well as regulatory model analysis. Select projects at E3 include:

- Led a California Energy Commission-funded study examining the implications of economy-wide decarbonization for the state's natural gas utilities and customers. The study compares electrification- and renewable natural gas-based pathways to decarbonize buildings. A key finding is that electrification is cost-effective in California from both societal and customer perspectives. The customer perspective was found to be critical for understanding the economics of gas distribution in the context deep decarbonization: as customers exit the gas system, the average cost of service for remaining customers increases, further incentivizing customers to electrify. This feedback effect motivates the need for a managed gas transition strategy that is consistent with both meeting the state's climate objectives and protecting customers.
- Led the development of RESHAPE, an end-use electrification load scenario tool. This tool identifies electrification loads for both the transportation and buildings sectors, capturing features like load diversity, load shift, and technological progress. RESHAPE has been used by a variety of private and public sector clients across the United States and Canada to understand the electric load impacts of electrification at various scales.
- Developed an economy-wide study of Pacific Northwest deep decarbonization pathways for gas distribution utility NW Natural analyzing the role of buildings in achieving regional policy ambitions. The study found that building decarbonization is a viable strategy but could drive significant load growth, thereby imposing large new electric sector impacts on the region. The study identified strategies to reduce those impacts, including cold climate heat pumps and building energy efficiency.

Intern Summer 2016

- Co-authored an E3 white paper that considers the future of electric utilities in the context of increased competition and policy-obligations. Instead of focusing on regulatory tweaks to reconcile competition and policy, we focus on the structure of utilities in terms of their form and function. The thesis of the piece is that policymakers must decide whether utilities should be

heavily involved in policy implementation or whether a more competitive market structure is preferable.
- Co-developed a public tool spreadsheet model—called a Locational Net Benefits Analysis—that quantifies that value of distributed energy resources.

NATURAL RESOURCES DEFENSE COUNCIL San Francisco, CA
Consultant September 2016 – May 2017

- Produced policy analysis in support NRDC's distributed energy resources advocacy. Developed written regulatory comments that were block quoted in several CPUC decisions.

ENERGY INNOVATION, LLC San Francisco, CA
Policy Consultant 2016 – 2017

- Wrote a paper for the America's Power Plan series evaluating the impact of different performance-based regulation (PBR) designs on utilities' revenue and motivation to accomplish societal goals. This report added specificity to discussions of new regulatory models by illuminating the implications of PBR for utility decision-making on a project-by-project basis.

CALIFORNIA PUBLIC UTILITIES COMMISSION
OFFICE OF PRESIDENT PICKER San Francisco, CA
Graduate Student Intern *Summer 2015*

- Developed an analysis of regulatory models that better align electric utility incentives with changing electricity system technological trends, market structures and policy goals. Provided clarity on the various regulatory models labeled PBR and mapped out what forms of PBR may be aligned with California's energy policy goals.
- Reviewed proposed decisions and regulatory filings to advise President Picker on active energy related proceedings. Covered topics including grid modernization, grid integration, prudence reviews, and fuel-cost balancing accounts.

THE ENERGY FOUNDATION San Francisco, CA
Program Associate/ Senior Program Associate/ Staff Consultant 2011 – 2016

- Conduct policy issue research on a part-time basis to inform strategy development for, and implementation of, Energy Foundation's energy efficiency grant portfolio. Tasks have ranged from developing fundraising materials to reviewing grantee proposals.
- As a full-time employee effectively managed, and guided the strategic direction of, the $4 million energy efficiency portfolio grant portfolio during a period of significant senior staff turnover. Developed a strong knowledge of the policy and political barriers to deep energy efficiency commitments. Synthesized and prioritized strategies from a diverse set of over 40 advocacy groups to ensure that energy efficiency policies were successfully defended, implemented and improved in 35+ states.
- Effectively told the story of the energy efficiency program's strategy in writing, in presentations and in funder meetings. On two separate occasions, my work played a key role in unlocking at-risk funding, totaling over $1.2 million, for the industrial energy efficiency initiative.

- Worked to bolster the effectiveness of an energy efficiency advocate network by facilitating technical assistance and consulting expertise for grantees, making connections between groups conducting complementary work, and organizing an annual conference where over 150 experts shared best practices in energy efficiency regulatory policy and politics.
- Produced high quality written and visual materials to effectively communicate the energy efficiency program's progress and challenges to a diverse set of audiences including board members, Energy Foundation colleagues and external advisors.
- Demonstrated a commitment to internal process improvement by leading work to implement new Program Team budget spreadsheets that enable more coordinated grantmaking. Served as an effective manager of three program budgets, ensuring that all internal spending deadlines were met.

TETRA TECH EM, INC. Bothell, WA
Energy Analyst June 2008 – July 2010

- Calculated the greenhouse gas abatement potential of power sector-oriented, state-level climate policy options in four states (FL, IL, MI, OH). Assisted in the management of stakeholder processes to ensure quantitative work was credible to a broad set of interest groups, businesses and decision makers.
- Worked on a variety of environmental consulting projects including greenhouse gas inventory verifications, food chain modeling in remediation projects, environmental impact statements, environmental site assessments, and environmental justice initiatives.

Extracurricular Work Experience

CENTRO MARIO MOLINA (CMM) Berkeley, CA
Policy Analyst January 2015 – June 2015

- As part of a team of student consultants, developed an analysis of renewable portfolio standard (RPS) best practices in the context of Mexico's recent energy reform. Compared the ability of various RPS design strategies to provide the stability necessary to develop large amounts of renewable capacity in country with only a nascent clean energy industry.

BERKELEY ENERGY AND RESOURCES COLLABORATIVE (BERC) Berkeley, CA
Vice President of Membership December 2014 – January 2016

- Elected by peers to BERC's Executive Team. Ensured that the organization meets the needs of over 2,000 members with a diverse set of substantive interests and methodological approaches. Served as a clearinghouse of information for a wide variety of energy related events, learning opportunities and more.

Education

University of California, Berkeley Berkeley, CA
Master of Public Policy, Master of Arts in Energy and Resources May 2017

Whittier College — Whittier, CA
B. A. Economics and Political Science — May 2008
Honors: Outstanding Economics Major, Distinction in Economics and Political Science Majors

University of Oxford — Oxford, UK
Politics, Philosophy and Economics — 2005 – 2006

Citizenship

United States