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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

San Francisco, CA

Senior Consultant

Mr. Aas joined E3 as a consultant in 2017 upon completing a Master of Public Policy and a Master of Arts in Energy and Resources from the University of California, Berkeley. At E3, Mr. Aas conducts climate policy and energy market analysis on behalf of local and state government, project developer and utility clients. Mr. Aas brings with him extensive knowledge of policy planning, development and implementation as well as regulatory model analysis. Select projects at E3 include:

- Implemented a deep decarbonization PATHWAYS model for the Southern California Association of Governments. This project downscales the state-wide California PATHWAYS novel to provide meaningful insights for local government action. Mr. Aas leveraged his experience working with local governments to identify scenarios that can inform future climate action planning in the region.
- Developed a pro-forma financial model that allows for comparison of lifecycle capital costs for a variety of energy storage technologies. The model allows users to test whether a longer-lived storage asset (e.g. pumped hydro) is less expensive over multi-decade time periods than shorter-lived investments. The model incorporates multiple capital reinvestments, battery degradation and associated augmentation costs, as well as the ability to return results for different battery capacities and durations.
- Led a cost CNG cost allocation study for a large natural gas distribution company in California.
 Worked with the client to ensure that data provided were high quality and that the results accurately capture the cost of providing natural gas compression services.

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 policy-makers must decide whether utilities should be heavily involved in policy implementation or whether a more competitive market structure is preferable.
- o Co-developed a public tool spreadsheet model—called a Locational Net Benefits Analysis—that quantifies that value of distributed energy resources.
- Conducted regulatory policy research to inform a \$200 million investment in distributed energy resources. Developed a concise summary that describes the history and likely future paths of California Public Utility Commission incentives and programs that the investment hinged upon.

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

 Writing a paper for the America's Power Plan series that evaluates the impact of different performance-based regulation (PBR) designs on utilities' revenue and motivation to accomplish societal goals. This report will add 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 atrisk 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

 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 our 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.

Berkeley Innovative Solutions

Berkeley, CA

Team Lead

September 2014 - December 2014

Led an interdisciplinary team of UC Berkeley students working in a management consulting capacity for the San Francisco Clean Cities Coalition. Ensured that team members met individual deadlines and that the mixed skillsets of the team were effectively leveraged.

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

<u>Citizenship</u>

United States