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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

San Francisco, CA

Senior Managing Consultant

Ms. Knapstein joined E3 in 2019, where she helps utilities, system operators, and state agencies meet climate goals. She joined E3 from Pacific Gas & Electric, where she led efforts to prepare for climate-related impacts and conducted analysis of climate and energy regulation and legislation. Previously, Ms. Knapstein worked for the U.S. Department of Energy on funding and commercializing energy efficient building technologies. Ms. Knapstein holds an M.S. in Energy and Resources and a Master of Public Policy degree from the University of California, Berkeley and a B.A. in Business Administration, with a minor in Physics, from the University of Florida.

Select E3 projects include:

SMUD 2030 Zero Carbon Plan, 2020-2021. Led a team that worked with SMUD to study electric sector pathways to carbon neutrality by 2030, as required by SMUD's Climate Emergency Resolution. The results of the study were synthesized in a public-facing report and presented to SMUD's Board in March 2021. The study detailed key aspects of the 2030 target including: how carbon neutrality should be defined, which accounting methodology should be used to set the targets, whether existing or proven cleantech can accomplish the 2030 goal within reasonable costs and resource build rates, how emerging technologies like DERs, long-duration storage, and hydrogen can and aide in reaching the goal or reducing costs, and most importantly, how to achieve SMUD's goals while maintaining strict reliability.

California Energy Commission (CEC) lead Joint Agency SB100 Analysis, 2019-2020. Led a team that modeled the least-cost portfolio of resources required to meet different definitions of California's SB100. The team scaled-up an existing E3 model to reflect a statewide representation and three different interpretations of California's policy future. Additionally, over thirty sensitivities were performed to study various aspects of the potential portfolio including varying costs and resource eligibility

Silicon Valley Clean Energy Building Electrification and DER Adoption Study (2019-2020). Performed an analysis on baseline adoption and projected adoption of building electrification and DER technologies under several incentive and rate scenarios for several building types and vintages, combining to form over 1,400 unique cases for the Silicon Valley Clean Energy service area and customer base.

PACIFIC GAS & ELECTRIC COMPANY

San Francisco, CA

Expert Analyst, Climate Resilience and Climate Policy

June 2018 – September 2019

Senior Analyst, Climate Resilience and Climate Policy

June 2017 – June 2018

- Managed integration of climate risk into company-wide investment strategy
- Analyzed risks and recommended mitigations related to climate change
- Conducted technical, economic, policy assessments of climate and energy regulation and legislation

- Contributed to cross-cutting proceedings including integrated resources plan (IRP), rate design, building decarbonization, low carbon fuel standard (LCFS), and renewable fuel standard
- Represented PG&E at CPUC, CEC, CARB, EPA, and elsewhere

NATURAL RESOURCES DEFENSE COUNCIL (NRDC)

Energy Policy Fellow

San Francisco, CA
September 2016 – May 2017

- Produced building decarbonization policy analysis used to support drafting of “SB 1477: Low-emissions Buildings and Sources of Heat Energy,” signed into law in September 2018

THE CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

Graduate Student Researcher

San Francisco, CA
January 2016 – June 2016

- Analyzed GHG tracking, climate credit funding, and compliance under AB 32
- Analyzed self-generation incentive program (SGIP) for GHG emission reductions and fraudulent incentive claims

EDISON ELECTRIC INSTITUTE (EEI)

Research Assistant

Washington, DC
May 2015 – August 2015

- Wrote briefs on flexible generation and advanced metering infrastructure (AMI) deployments

CENTRO MARIO MOLINA

Energy and Climate Policy Consultant

Berkeley, CA
December 2014 – May 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.

U.S. DEPARTMENT OF ENERGY (DOE-EERE)

Energy Analyst

Washington, DC
June 2012 – September 2014

- Managed contractor/lab team, platform rollout, stakeholder engagement, marketing, and education for the largest public database of building energy data with >1M unique records (Buildings Performance Database). Managed design of complimentary data specification and schema for energy application interoperability.
- Managed peer review, selection, funding and commercialization of emerging tech grants
- Managed 6 annual innovation teams with \$40K budget (Better Buildings), concluding in White House presentations to investors
- Managed 5 emerging tech grants annually with a budget of \$400K, one achieving 30% energy savings for air conditioning units

U.S. HOUSE OF REPRESENTATIVES

Energy and Environment Intern

Washington, DC
February 2012 – June 2012

- Authored white papers for senior staff (“Grid Modernization in New Mexico,” “Opportunities in Solar Energy Zones”) used to petition the Bureau of Land Management for preferential energy development specifications and permitting

SCOPEINSIGHT/NEWFORESIGHT

Consultant

Utrecht, The Netherlands

October 2011 – March 2012

- Supply chain emission reductions and sustainability consulting for clients including Nestle, Hershey’s, Mars, flower and fish distributors
- Developed international market-research database and commercialization plan for platform to align sustainable farms with interested funders, banks, and NGOs; secured \$2M from the Government of the Netherlands for prototype

GAINESVILLE REGIONAL UTILITIES (GRU)

Finance Intern

Gainesville, FL

December 2009 – May 2010

- Assisted in roll-out of feed-in-tariff program and managed and tracked assets

Education

University of California, Berkeley

M.S., Energy and Resources

Master of Public Policy

Berkeley, CA

2017

2016

University of Florida

B.A., Business Administration, Minor in Physics

Gainesville, FL

2011

Academic Appointments

U.C. BERKELEY – RENEWABLE AND APPROPRIATE ENERGY LABORATORY

Graduate Student Researcher

Berkeley, CA

January 2016 – May 2017

- California Energy Commission grantee: Climate Adaptation, Risk Planning for Investor Owned Utilities
- Polled IOU, ISO, CCA stakeholders on climate change risk and adaptation practices for grid infrastructure

U.C. BERKELEY – ENERGY AND CIVILIZATION

Graduate Student Researcher and Instructor

Berkeley, CA

June 2016 – December 2016

- Designed course, recruited speakers, and created course content; taught 50 students

UNIVERSITY OF NEW SOUTH WALES – CLIMATE CHANGE RESEARCH CENTRE

Visiting Research Scholar and Lecturer

Sydney, Australia

June 2016 – August 2016

- Researched renewable energy technology learning curves and knowledge spillovers

- School of PV and Renewable Energy Engineering (SPREE) lecturer

UC BERKELEY - ENERGY AND SOCIETY

Graduate Student Instructor

Berkeley, CA

August 2015 – December 2015

- Taught discussion sections to 100 students covering interdisciplinary energy topics

UNIVERSITY OF FLORIDA - SOIL AND WATER SCIENCE LABORATORY

Bioenergy Research Assistant

Gainesville, FL

July 2010 – January 2011

- Conducted food-waste chemical-oxygen demand audit for anaerobic digesters

Citizenship

United States