

**Exhibit No. EB-2**  
**Docket No. UE-200900,**  
**UG200901, UE-**  
**200894**  
**AVISTA GENERAL RATE CASE**  
**Witness: Ed Burgess**

**BEFORE THE**  
**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,

Complainant,

v.

AVISTA CORPORATION d/b/a  
AVISTA UTILITIES,

Respondent.

DOCKETS UE-200900, UG-200901,  
UE-200894 (*Consolidated*)

**EXHIBIT EB-2 TO THE**  
**PREFILED RESPONSE TESTIMONY OF**  
**ED BURGESS**  
**ON BEHALF OF THE SIERRA CLUB**

**April 21, 2021**

# Edward Burgess

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941-266-0017

## Overview

Ed Burgess is Senior Director of Strategen Consulting's Government and Utility Consulting Practice. His core expertise is in policy and regulation of the electric power sector at the state level, with a specialized focus on economic analysis, technical regulatory support, resource planning and procurement, utility rates, and policy & program design. Ed has served clients in the renewable energy, energy storage, electric vehicle, and energy efficiency industries, including several private companies, energy project developers, trade associations, utilities, government agencies, and foundations. His technical analysis has helped to shape state regulations and policies related to energy portfolio standards, distributed energy resources, rate design, resource planning and transmission/distribution system planning. Prior to joining Strategen, Ed played a lead role in two major initiatives at Arizona State University: The Utility of the Future Center and the Energy Policy Innovation Council where he conducted research and policy analysis for the Governor's Office of Energy Policy, the Department of Environmental Quality, and other major stakeholders in Arizona. Ed also worked as an independent consultant for Schlegel & Associates, providing technical analysis on demand-side management policies, and for Kris Mayes Law Firm providing regulatory support to the solar industry in the Southwest U.S.

### Senior Director

*AUG 2019 – Present*

### Director

*JAN 2018 – AUG 2019*

### Senior Manager

*JUL 2016 – DEC 2017*

### Manager

*JUL 2015 – JUN 2016*

Strategen Consulting – Berkeley, CA

### Independent Consultant

*NOV 2012 – JUL 2015*

Schlegel & Associates – Phoenix, AZ

*JUN 2012 – JUL 2015*

Kris Mayes Law Firm – Phoenix, AZ

### Project Manager & Researcher

*JUN 2012 – JUL 2015*

Arizona State University – Tempe, AZ

### Instructor

*JUN 2011 – MAY 2012*

Arizona State University School of Sustainability  
– Tempe, AZ

### Research Fellow

*JUL 2007 – JUL 2009*

Environmental Defense Fund – New York, NY

## EDUCATION

PSM, Solar Energy Engineering and  
Commercialization

Arizona State University, 2012

MS, Sustainability

Arizona State University, 2011

BA, Chemistry

Princeton University, 2007

## EXPERIENCE – 11 YEARS

Energy Resource Planning & Procurement

Utility Rates and Regulation

Cost Benefit Analysis

Avoided Cost and Cost Effectiveness

Energy Policy & Markets

Energy Product Development & Market Strategy

Stakeholder Engagement

Management Consulting

# Selection of Relevant Projects at Strategen Consulting

## *Southwest Energy Efficiency Project*

- Provided critical analysis and alternatives to the 2020 integrated resource plans (IRPs) of the state's major utilities, Arizona Public Service (APS) and Tucson Electric Power (TEP).
- Provided analysis on Salt River Project's resource plan as part of its 2035 Sustainability Goals planning process.
- Evaluated different levels of renewable energy and energy efficiency and identify any changes to the resources needed to meet these requirements and ensure reliability.
- Worked with Strategen technical team on utilizing a sophisticated capacity expansion model to optimize the clean energy portfolio used in the analysis of the IRPs.

## *California Energy Storage Alliance*

- Managed a special initiative of this leading industry trade group to conduct technical analysis and stakeholder outreach on the value of hybridizing existing gas peaker plants with energy storage

## *Vehicle Grid Integration Council*

- Served as Acting Executive Director and helped to staff the launch this new 501c6 trade organization focused on leveraging electric vehicles to provide managed charging and other services as grid resource
- Members include many leading auto OEMs and EV service providers.
- Accomplished key policy changes in California to help secure a suite of Vehicle Grid Integration strategies as a core component of broader transportation electrification efforts.

## *Arizona, Residential Utility Consumer Office (RUCO)*

- Supported drafting of expert witness testimony on multiple rate cases regarding utility rate design, distributed solar PV, and energy efficiency.
- Performed analytical assessments to advance consumer-oriented policy including rate design, resource procurement/planning, and distributed generation consumer protection.
- Lead author on the white paper published by RUCO introducing the concept of a Clean Peak Standard.

## *Portland General Electric*

- Provided education and strategic guidance to a major investor-owned utility on the potential role of energy storage in their planning process in response to state legislation (HB 2193).
- Participated in public workshop before the Oregon Public Utilities Commission on behalf of PGE.
- Supported development of a competitive solicitation process for potential storage technology solution providers.

## *Xcel Energy*

- Conducted analysis supporting the design of a new residential time-of-use rate for Northern States Power (Xcel Energy) in Minnesota.

## *Western Resource Advocates*

- Conducted a thorough technical analysis and report on the NV Energy IRP. As part of this, Strategen investigated resource mixes that included higher levels of demand side management, renewable energy, battery storage, and decreased reliance on existing and/or planned fossil fuel plants.
- Analysis conducted through this engagement ultimately contributed to Nevada's passing of a 50% renewable energy by 2030 and 100% carbon free by 2050 bill.

## *Sierra Club*

- Provided technical support for Sierra Club in analyzing issues of interest during Pacificorp's IRP stakeholder input process.
- Prepared analysis, technical comments, discovery requests in advance of drafting formal comments to be submitted before the Oregon Public Utility Commission.

## *Massachusetts Attorney General's Office*

- Appeared as an expert witness and supported drafting of testimony on the implementation of the MA SMART program (D.P.U. 17-140), which is expected to deploy 1600 MW of solar PV (and PV + storage) resources over the next several years.

- Served as an expert consultant on multiple rate cases regarding utility rate design and implications for ratepayers and distributed energy resource deployment.

#### *New Hampshire Office of the Consumer Advocate*

- Worked with the state's consumer advocate to develop expert testimony on a case reforming the state's market for distributed energy resources.
- Developed a new methodology for designing retail electricity rates that is intended to support greater deployment of energy storage.

#### *District of Columbia, Office of the People's Counsel*

- Provided technical support and analysis on a utility proposed electric vehicle charging program
- Supported drafting comments on the Counsel's position in favor of a more customer-friendly approach to electric vehicle program implementation

#### *North Carolina, Office of the Attorney General*

- Provided technical support and analysis to the state's consumer advocate on utility integrated resource plans and their implications for customers and public policy goals.

#### *Maryland, Office of People's Counsel*

- Provided technical support to the state's consumer advocate topics associated with the large PC44 grid modernization effort.
- Topics included electric vehicles, energy storage, distribution grid planning, and interconnection.

#### *City and County of San Francisco*

- Aided in evaluation of solar PV with battery storage as a solution for resilience of critical infrastructure.
- Provided technical economic assessment of opportunities for wholesale market participation as an added value for facilities installed.

#### *University of California, San Diego*

- Conducted economic analysis to help guide a multi-year research project on the use of advanced solar forecasting technology to improve integrated solar and energy storage.

#### *University of Minnesota*

- Facilitated multiple stakeholder workshops to understand and advance the appropriate role of energy storage as part of Minnesota's energy resource portfolio.
- Conducted study on the use of storage as an alternative to natural gas peaker.
- Presented workshop and study findings before the Minnesota Public Utilities Commission.

#### *Arizona State University (ASU)/Arizona Department of Environmental Quality (ADEQ)*

- Project manager for partnership between ASU/ADEQ to study compliance options for the state of Arizona to meet requirements of the EPA's Clean Power Plan (CPP).
- Completed a comprehensive study on the impact of CPP scenarios on the operation of the southwest power grid and cost to Arizona and Navajo Nation electricity customers.

## Recent Publications

Edward Burgess, Ellen Zuckerman, and Jeff Schlegel, "Is the Duck Curve Eroding the Value of Energy Efficiency" Proceedings of the American Council for an Energy Efficiency Economy (ACEEE) 2018 Summer Study on Energy Efficiency in Buildings, (pending).

Lon Huber, Ed Burgess, "Evolving the RPS: A Clean Peak Standard for a Smarter Renewable Future," (November 2016), Arizona Residential Utility Consumer Office, Arizona Corporation Commission, Docket No. E-00000Q-16-0289, <https://www.strategen.com/s/Evolving-the-RPS-Whitepaper.pdf>

Mark Higgins, Ed Burgess, and Bill Ehrlich, "Energy Storage Likely to Increase in Utility Resource Planning" Natural Gas and Electricity, Volume 32, Number 10 (May 2016).

Ellen Zuckerman, Edward Burgess, and Jeff Schlegel, "Are Recent Forays into Restructuring a Threat to Energy Efficiency?" Proceedings of the American Council for an Energy Efficiency Economy (ACEEE) 2014 Summer Study on Energy Efficiency in Buildings, (August 2014) <http://aceee.org/files/proceedings/2014/data/papers/6-1135.pdf#page=1>.

Sonia Aggarwal and Edward Burgess, "Performance Based Models to Address Regulatory Challenges" The Electricity Journal (July 2014) <http://www.sciencedirect.com/science/article/pii/S1040619014001389>.

"Transmission and Renewable Energy Planning in California," prepared for the Western Governors Association, (November 2012) <http://www.westgov.org/wieb/wrez/11-28-2012WREZca.pdf>.

Edward Burgess and Petra Todorovich, "High-Speed Rail and Reducing Oil Dependence" in Transport Beyond Oil, Island Press (March 2013).

"On the nature of the dirty ice at the bottom of the GISP2 ice core," Earth & Planetary Science Letters (October 2010). <http://www.sciencedirect.com/science/article/pii/S0012821X10006084>

## Selected Speaking Engagements

- California Energy Storage Alliance, Market Development Forum (February 2019)
- Rutgers University, Rutgers Energy Institute 2018 Annual Symposium (May 2018)
- Energy Storage North America (August 2017)
- MN Energy Storage Workshop (Sept 2016 & Jan 2017);
- Arizona Corporation Commission Peak Demand Workshop, (August 2016);
- Arizona Department of Environmental Quality, Clean Power Plan Technical Working Group, (May 2016);
- Energy Storage North America (2015);
- ASU Clean Power Workshop (February 2015);
- Western Interstate Energy Board Meeting (March 2014).