

## Professional Summary

Chelsea is a Consultant at Energy Futures Group specializing in integrated resource planning and load forecasting. Prior to joining EFG, Chelsea held a research position at Clarkson University while completing her Master's in Data Analytics and Environmental Policy & Governance. Chelsea's research focused on multi-stakeholder microgrids for resiliency. She also participated in the Reforming the Energy Vision (REV) proceedings for the Potsdam (NY) microgrid REV project. Chelsea's current work is focused on all aspects of Integrated Resource Planning including capacity expansion and production cost modeling and load forecasting. Chelsea runs the EnCompass model in support of long-term planning exercises such as IRP analyses and has critiqued IRP modeling performed using Aurora, PLEXOS, PowerSimm, and System Optimizer. Chelsea has also conducted capacity expansion, production cost, and reliability modeling using the EnCompass, Aurora, PLEXOS, and SERVM models. Chelsea has experience working with numerous software programs including Python, R, and Stata.

## Education

M.S., Data Analytics, Clarkson University, 2020

M.S., Environmental Policy and Governance, Clarkson University, 2019

MBA, Concentration in Environmental Management, Clarkson University, 2012

B.S., Accounting and Economics, Elmira College, 2011

## Experience

2021-present: Consultant, Energy Futures Group, Hinesburg, VT

2020-2021: Senior Analyst, Energy Futures Group, Hinesburg, VT

2019-2020: Analyst, Energy Futures Group, Hinesburg, VT

2018-2019: Intern, Sommer Energy, Canton, NY

2016-2019: Research Assistant, Clarkson University, Potsdam, NY

## Selected Projects

- **West Virginia Citizen Action Group, Solar United Neighbors, and Energy Efficient West Virginia.** Reviewed the commitment and operation of the Amos, Mitchell, and Mountaineer generating units during the 2023-2024 review period. (2024) Reviewed the commitment and operation of the Harrison and Fort Martin generating units during the 2022-2023 review period. (2023)

- **The South Carolina Coastal Conservation League and Southern Alliance for Clean Energy.** Performed EnCompass and SERVM modeling to evaluate a clean energy replacement portfolio for proposed coal plant retirements in the Santee Cooper 2023 IRP. (2023) Performed SERVM modeling to evaluate a clean energy replacement portfolio for proposed coal plant retirements in the Dominion Energy South Carolina 2023 IRP. (2023)
- **The Ecology Center, the Environmental Law & Policy Center, the Union of Concerned Scientists, and Vote Solar.** Performed capacity expansion and production cost modeling within EnCompass to put forward an alternate plan to DTE's preferred plan in its 2022 IRP. (2022 to 2023)
- **GridLab.** Performed capacity expansion and production cost modeling within EnCompass to identify resource mixes to achieve 100% emissions-free electricity by 2035 for the Public Service Company of New Mexico's electric system. (2022 to 2023)
- **Sierra Club.** Performed capacity expansion and production cost modeling within EnCompass to evaluate retirement and replacement of MidAmerican's coal plants. (2022 to 2023)
- **Kentuckians for the Commonwealth, Kentucky Solar Energy Society, and Mountain Association.** Reviewed and provided comments on East Kentucky Power Cooperative's 2022 Integrated Resource Plan. (2022)
- **Kentuckians for the Commonwealth, Kentucky Solar Energy Society, Metropolitan Housing Coalition, and Mountain Association.** Reviewed and provided comments on Louisville Gas & Electric and Kentucky Utilities' 2021 Integrated Resource Plan. (2022)
- **The Department of Attorney General and Sierra Club.** Reviewed and submitted testimony on the Aurora modeling Indiana Michigan Power Company performed for its 2021 Integrated Resource Plan. (2022)
- **The Environmental Law and Policy Center, The Ecology Center, Union of Concerned Scientists, and Vote Solar.** Performed Aurora modeling to evaluate higher levels of distributed solar for the Consumers Energy Company's 2021 Integrated Resource Plan. (2020 to 2021)
- **Colorado Office of the Utility Consumer Advocate.** Performed EnCompass modeling related to the Public Service Company of Colorado's 2021 Electric Resource Plan. (2021)
- **Minnesota Center for Environmental Advocacy.** Evaluated Otter Tail Power's 2021 Integrated Resource Plan and EnCompass modeling in support of that evaluation. (2022 to 2024) Evaluated Minnesota Power's 2021 Integrated Resource Plan and performed EnCompass modeling in support of that evaluation. (2021 to 2022) Evaluated Xcel Energy's 2020 Integrated Resource Plan and performed EnCompass modeling in support of that evaluation. (2019 to 2021)
- **Earthjustice.** Evaluation of PREPA's request for proposals for temporary emergency generation. (May 2020) Evaluation of the Puerto Rico Electric Power Authority's 2019 Integrated Resource Plan. (2019 to 2020)
- **The Council for the New Energy Economics.** Participated in Evergy's integrated resource plan stakeholder workshops and performed EnCompass modeling to evaluate coal plant retirements (2020 to 2021).
- **EfficiencyOne.** Supported EfficiencyOne's participation in Nova Scotia Power's integrated resource planning process. (2019 to 2020)

- **Southern Alliance for Clean Energy.** Evaluation of Dominion Energy South Carolina’s 2020 Integrated Resource Plan. (2020)
- **Washington Electric Cooperative.** Conducted the analysis for the 2020 Integrated Resource Plan. (2019 to 2020)
- **Coalition for Clean Affordable Energy.** Evaluated the Public Service Company of New Mexico’s abandonment and replacement of the San Juan generating station and performed EnCompass modeling to develop an alternative replacement portfolio. (2019 to 2020)
- **Citizens Action Coalition of Indiana.** Comments regarding Duke Energy Indiana’s integrated resource plans to meet future energy and capacity needs (May 2022). Comments regarding Northern Indiana Public Service Company’s integrated resource plans to meet future energy and capacity needs. (March 2022) Comments regarding Southern Indiana Gas and Electric’s integrated resource plans to meet future energy and capacity needs (November 2020). Comments regarding Indianapolis Power and Light’s integrated resource plans to meet future energy and capacity needs (April 2020). Comments regarding Indiana Michigan Power Company’s integrated resource plans to meet future energy and capacity needs (December 2019).
- **Institute for Energy Economics and Financial Analysis (IEEFA).** Evaluation of National Grid’s long-term natural gas capacity report. (March 2020) Evaluation of the Puerto Rico Energy Commission’s proposed wheeling regulation. (March 2019) Co-author for the report Retail Choice Will Not Bring Down Puerto Rico’s High Electricity Rates. (August 2018) Evaluation of the Puerto Rico Energy Commission’s proposed microgrid rules. (February 2018)

## Publications

Hotaling, C., Bird, S., & Heintzelman, M. D. (2021). Willingness to pay for microgrids to enhance community resilience. *Energy Policy*, 154, 112248.

Atems, B., & Hotaling, C. (2018). The effect of renewable and nonrenewable electricity generation on economic growth. *Energy Policy*, 112, 111-118.

Bird, S., & Hotaling, C. (2017). Multi-stakeholder microgrids for resilience and sustainability. *Environmental Hazards*, 16(2), 116-132.

Bird, S., Enayati, A., Hotaling, C., and Ortmeier, T. (2017). Resilient Community Microgrids: Governance and Operational Challenges. In *Energy Internet: An Open Energy Platform to Transform Legacy Power Systems into Open Innovation and Global Economic Engine*, edited by Alex Q. Huang and Wencong Su. Elsevier.

## Expert Testimony

Before the Public Service Commission of West Virginia, Case No. 24-0413-E-ENEC. *Petition to Initiate the Annual Review and to Update the ENEC Rates Currently in Effect*. On behalf of West Virginia Citizen Action Group, Solar United Neighbors, and Energy Efficient West Virginia.

Before the Georgia Public Service Commission, Docket No. 55378. *Georgia Power Company's 2023 Integrated Resource Plan Update*. On behalf of Georgia Interfaith Power & Light.

Before the Public Service Commission of West Virginia, Case No. 23-0735-E-ENEC. *Petition and General Investigation to Determine Reasonable Rates and Charges on and after January 1, 2024*. On behalf of West Virginia Citizen Action Group, Solar United Neighbors, and Energy Efficient West Virginia.

Before the South Carolina Public Service Commission, Docket No. 2023-154-E. On behalf of the South Carolina Coastal Conservation League and Southern Alliance for Clean Energy.

Before the South Carolina Public Service Commission, Docket No. 2023-9-E. On behalf of the South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, and Sierra Club.

Before the Michigan Public Service Commission, Case No. U-21193. *In the Matter of the Application of DTE Electric Company for Approval of its Integrated Resource Plan Pursuant to MCL 460.6t, and for other relief*, on behalf of the Ecology Center, the Environmental Law & Policy Center, the Union of Concerned Scientists, and Vote Solar.

Before the Kentucky Public Service Commission, Case Number 2022-00387. *In the Matter of Electronic Tariff Filing of Kentucky Power Company for Approval of a Special Contract with Ebon International, LLC*, on behalf of Mountain Association, Kentuckians for the Commonwealth, Appalachian Citizens' Law Center, Sierra Club, and Kentucky Resources Council.

Before the Kentucky Public Service Commission, Case Number 2022-00371. *In the Matter of Electronic Tariff Filing of Kentucky Utilities Company for Approval of an Economic Development Rider Special Contract with Bitiki-KY, LLC*, on behalf of Kentuckians for the Commonwealth, Kentucky Solar Energy Society, Mountain Association, and Kentucky Resources Council.

Before the Iowa Utilities Board, Docket No. RPU-2022-0001. *Application for a Determination of Ratemaking Principle*, on behalf of Environmental Intervenors.

Before the Michigan Public Service Commission, Case No. U-21189. *In the Matter of the Application of Indiana Michigan Power Company for Approval of its Integrated Resource Plan Pursuant to MCL 460.6t, Avoided Costs and for Other Relief*, on behalf of Attorney General Dana Nessel and Sierra Club.

### Energy Futures Group, Inc

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Before the Michigan Public Service Commission, Case No. U-21090. *In the Matter of the Application of Consumers Energy Company for Approval of its Integrated Resource Plan Pursuant to MCL 460.6t and for Other Relief*, on behalf of the Environmental Law and Policy Center, the Ecology Center, Union of Concerned Scientists, and Vote Solar.

Before the Public Utilities Commission of Colorado, Proceeding No. 21A-0141E. *In the Matter of the Application of Public Service Company of Colorado for Approval of its 2021 Electric Resource Plan and Clean Energy Plan*, on behalf of the Colorado Office of the Utility Consumer Advocate.