

# AMALIA HICKS, PH.D.

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Driven and resourceful senior energy services consultant, with extensive background in study planning, data collection, statistical analysis, and results interpretation. Accomplished project manager with exceptional leadership and communication skills; particularly adept at interfacing with clients and other project stakeholders. Demonstrated track record of mentorship and guiding analytical teams to successful project completion. Possesses a wealth of experience in technical writing, innovative data visualization, and results presentation. Currently specializes in evaluating demand side efficiency measures and technologies, IOU-funded energy efficiency programs, and billing data analysis.

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## PROFESSIONAL SKILLS

### **Project Management and Leadership**

- Define and initiate projects, manage budget, schedule, and quality of deliverables
- Responsible and accountable for the coordinated management of simultaneous projects for 15 years
- Consistently guide international teams to project finish using leadership and communication skills

### **Analytical / Technical Skills**

- Process, analyze and manage large datasets using command-line driven statistical modeling packages
- Perform regression analyses, curve fitting, data visualization, and results interpretation
- Develop and implement statistical analysis pipelines in Python, R, IDL, C, FORTRAN

### **Communications, Mentoring, and Public Speaking**

- Mentor staff and students in data analysis and technical writing
- Regularly explain technical concepts to laypeople and diverse sets of project stakeholders
- Communicated scientific results via oral and/or graphic poster presentations at 24 professional conferences (including an invited talk at NASA)

### **Grant Writing / Technical Writing**

- Exceptionally successful grant writer: 30 accepted state / federal / IOU-reviewed proposals
- Experienced technical writer with degrees in Physics and English Literature
- 15 years of authorship in scientific journals, 24 refereed publications

## RECENT PROJECTS

**“The Energy Conservation Potential of Displacement Ventilation Technology in Minnesota Climate Conditions”**, conducted for the Minnesota Department of Commerce, 2016

**“Wisconsin Building Code Analysis: Identifying Low-Cost High-Impact Measures”**, conducted for Wisconsin Focus on Energy, 2015

**“Commercial Building Operational Assessment: Market Research”**, conducted for the U.S. Department of Energy, 2014

**“Evaluation of Advanced HVAC Technologies”**, conducted for Wisconsin Focus on Energy, 2013

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## EDUCATION

**Ph.D. Astrophysics (2005)** University of Colorado, Boulder, CO  
**M.S. Physics (2001)** Massachusetts Institute of Technology (MIT), Cambridge, MA  
**B.S. Physics (1997)** University of Wisconsin, Milwaukee, WI  
**B.A. English Literature / Pre-med (1994)** Macalester College, St. Paul, MN

## COMPUTING SKILLS

**Operating systems:** UNIX/Linux (16 years), Windows (16+ years), Mac OSX (12 years)  
**Languages:** Python, R, IDL, C, FORTRAN, shell scripting, HTML, some Perl, learning SAS  
**Software:** EnergyPlus, eQUEST, DesignBuilder, Word, Excel, PowerPoint, LaTeX, InDesign, Illustrator

## PROFESSIONAL EXPERIENCE

**Senior Associate** *The Cadmus Group* **2016-present**  
 • Manage data collection and analysis teams; Serve as client point of contact; Secure funding from federal, state, and IOU-supported sources; Evaluate and constrain savings from demand side energy efficiency strategies; Work closely with multiple project stakeholders; Guide analysis of billing data; Assist with design and interpretation of market surveys.

**Research Director / Energy Consultant** *Sustainable Engineering Group* **2012-2016**  
 • Initiated and developed energy efficiency research program for consulting company; Secured funding from federal, state, and IOU-supported sources; Managed data collection and analysis; Served as client point of contact; Interviewed stakeholders; Evaluated savings from demand side energy efficiency strategies; Collected and analyzed billing data; Designed, distributed, and interpreted market surveys.

**Senior Research Scientist** *Eureka Scientific* **2011-2012**  
 • Designed and conducted independent scientific research, statistical analysis, physical modeling; Managed project cost, schedule, and performance; Lead teams to project finish; Develop skills below.

**Research Scientist** *Michigan State University* **2008-2012**  
 • Evaluated NASA grant proposals for scientific impact, credibility, and feasibility (as review panelist); Prepared and administered budgets; Mentored grad and undergrad students; Constructed closing reports for funding agencies; Developed and maintained skills listed below.

**Research Associate** *University of Virginia* **2005-2008**  
 • Initiated, planned and executed multiple research projects; Taught undergraduate cosmology course; Obtained federal grant funding (NASA); Reviewed peer-written articles for professional journals;

**Research Assistant** *University of Colorado* **2001-2005**  
 • Managed simultaneous projects to completion; Developed grant writing and public speaking skills; Designed and delivered hour-long presentations; Performed graduate and faculty candidate screening; Mentored undergraduates.