

**Committee on Energy and Commerce**  
**U.S. House of Representatives**  
Witness Disclosure Requirement - "Truth in Testimony"  
Required by House Rule XI, Clause 2(g)(5)

<b>1. Your Name: Zachary Kuznar</b>		
<b>2. Your Title: Director, Energy Storage Development</b>		
<b>3. The Entity(ies) You are Representing: Duke Energy</b>		
<b>4. Are you testifying on behalf of the Federal, or a State or local government entity?</b>	<b>Yes</b>	<b>No</b> x
<b>5. Please list any Federal grants or contracts, or contracts or payments originating with a foreign government, that you or the entity(ies) you represent have received on or after January 1, 2015. Only grants, contracts, or payments related to the subject matter of the hearing must be listed. N/A</b>		
<b>6. Please attach your curriculum vitae to your completed disclosure form.</b>		

Signature: \_\_\_\_\_



Date: \_\_\_\_\_

7/16/18

# Zachary A. Kuznar, PhD

9018 Winthrop Dr.  
Cincinnati, OH 45249

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## EDUCATION

<u>Doctorate in Engineering and Applied Science</u> <i>Yale University</i> Department of Chemical Engineering Environmental Engineering Program Doctoral Advisor: Professor Menachem Elimelech	August 2005 <i>New Haven, CT</i>
<u>Master of Science &amp; Master of Philosophy, Chemical Engineering</u> <i>Yale University</i>	Sept. 2001-Dec. 2002 <i>New Haven, CT</i>
<u>Bachelor of Science, Chemical Engineering</u> <i>Purdue University</i> Department of Chemical Engineering	August 1995-May 1999 <i>West Lafayette, IN</i>

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## PROFESSIONAL EXPERIENCE

<u>Duke Energy Corporation</u>	June 2008-Present <i>Cincinnati, OH / Charlotte, NC</i>
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### **Director – CHP / Energy Storage / Micro-grid Development (2015-Present)**

In this role I lead the team responsible for developing and executing the strategy to create an investment portfolio for CHP, energy storage and micro-grids for all of Duke Energy's regulated companies. This includes all customer interaction, business case development, and gaining necessary regulatory approval for Duke Energy to own and operate these assets.

**Chief Technology Office / Senior Project Manager (2010 – 2014):** As part of the CTO group, my main role was to handle the technical assessment and application of distributed resources for Duke Energy (energy storage, solar, small scale wind, fuel cells and CHP), along with understanding the upcoming policy for water reuse and reduction and what technologies could help Duke address these issues (cooling water / environmental technologies). It involves being the point of contact for Duke Energy in evaluating external companies' new technologies to determine the impact on Duke, if a field test should be evaluated and the technology deployed, understanding the regulatory environment around distributed generation and water reuse, developing commercial business models and providing global project management on technology development. This role also involves:

- Project management of two large grid scale energy storage systems coupled with solar generation, along with development of control algorithms for their use on the electric grid.
- Representing Duke Energy as an advisor to the Electric Power Research Institute on their programs for solar, energy storage, biomass, renewable generation economics, and water management. Also being the primary Duke advisor to the Water Research Center.

- Representing Duke as a reviewer for the Department of Energy's Advanced Research Projects Agency – Energy (arpa-e).

**Senior Engineer / Generation Engineering (2008-2010)**

General Electric Advanced Materials

August 2005-June 2008  
Richmond Heights, OH

**Project Manager / R&D Technologist:** Total developmental responsibility leading the effort to build and launch a crucible production facility for the photovoltaic (*solar energy*) market in Wuxi, China. Work includes:

Yale University

September 2001-2005  
New Haven, CT

Graduate Student Researcher

Procter and Gamble Co.  
Chemical Engineer

June 1999-September 2001  
Modesto, CA & Cincinnati, OH

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**PROFESSIONAL SOCIETIES AND OTHER ACTIVITIES**

Board of Directors, Energy Storage Association	2016-Present
Completion of Duke Energy's Strategic Leadership Program (UNC)	2015
National Alliance of Advanced Technology Batteries (NAATBatt)	2011-present
Board Member / President	
Global BrightLight Foundation – Technical Advisor	2011 - present
Electric Power Research Institute	2010-2015
Advisor for Programs on Solar, Biomass, Energy Storage and Renewable Energy Economics, Water Management (co-advisor)	
Co-Chair of the 2013 March of Dimes Walk (Charlotte, NC)	2017