



**COMMUNITY FOUNDATION**  
**FOR THE ALLEGHENIES**

April 15, 2013

Rosemary Chiavetta  
Secretary for the PUC  
Pennsylvania Public Utility Commission  
North Office Building  
P.O. Box 3265  
Harrisburg, PA 17105-3265

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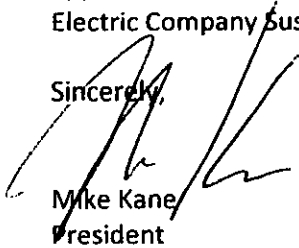
Re: Docket Number: M-00031715F0004

Dear Ms. Chiavetta:

On behalf of Kevin Murphy, President of Berks County Community Foundation, and myself, Michael Kane, President of the Community Foundation for the Alleghenies, I am submitting the name of Joseph J. Jacobsen to serve on the Advisory Board of the Metropolitan Edison Company/Pennsylvania Electric Company Sustainable Energy Fund. Mr. Jacobson currently holds the position of Executive Dean of Academics at the Pittsburgh Gateway's Energy Innovation Center. He is taking the place of Derek James, who has resigned from the Advisory Board. Mr. Jacobsen will be an at-large representative to the Advisory Board.

At the April 2, 2013 Metropolitan Edison Company/Pennsylvania Electric Company Sustainable Energy Fund Advisory Board meeting, Mr. Jacobsen was nominated and unanimously approved to succeed Derek James. The Advisory Board respectfully requests the Pennsylvania Public Utility Commission approve the appointment of Joseph J. Jacobsen to the Metropolitan Edison Company/Pennsylvania Electric Company Sustainable Energy Advisory Board.

Sincerely,



Mike Kane  
President

cc: Scott Gebhardt, PUC  
Heidi Williamson, Berks County Community Foundation

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## JOSEPH J. JACOBSEN

Phone – 414-418-6642  
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[buspqs@yahoo.com](mailto:buspqs@yahoo.com)

### Work Experience

#### 2013 – Current Pittsburgh Gateway's Energy Innovation Center

##### *Executive Dean of Academics*

Develop and lead all academic progress: courses, certifications, programs and related partnerships with special emphasis on program development, sustainable jobs and academic pathways. Conduct research in new and emerging occupations through benchmarking, the DACUM process and advisory committees. Direct knowledge management surrounding sustainable social and economic progress in workforce development, training, education and research. Initial hiring of faculty, funding and system design for the new Energy Innovation Center.

#### 2009 – 2013 Milwaukee Area Technical College

##### *Associate Dean – Environmental Studies/Director of the Energy Conservation & Advanced Manufacturing Center (2010-11)*

Develop and lead all academic sustainability initiatives at MATC, responsible for tracking and benchmarking all related environmental programs, coordination of programs between and among departments and divisions and the development of an environmental studies cluster. Specifically, develop the first 1) *quality engineering technology* and 2) *sustainable facilities* programs in the region, an *energy engineering technology* certificate, a *renewable energy* concentration, and modification of the *environmental health and water quality technology* program and the *power engineering* diploma. Co-char the Green Energy Summit, perform a variety of college wide economic analytics relating to FTE and bring in grant funds to support 100 % all academic innovations. Represent the college at WERC, the Water Council, the City of Milwaukee and other entities throughout the region.

#### 2007 – 2008 Milwaukee Area Technical College

*Associate Dean – Business & Information Technology/Technology & Applied Science* Development of faculty, courses, programs and budgets, areas of responsibility include marketing, business management, web site development, e-commerce, logistics, environmental and pollution control, energy, facilities operations and sustainability.

#### 2005 Consultant Services

##### *Business Performance, Quality and Sustainability: worldwide – [buspqs@yahoo.com](mailto:buspqs@yahoo.com)*

Curriculum development for power engineering, energy engineering, energy technology, renewable energy, sustainability, quality, decision science, quantitative analysis scientific methods and operations research. Energy performance contracting, facilities energy performance modeling, sustainability and social responsibility program development, reporting and presenting quantitative information, integration of sustainability and business performance measures. Business performance modeling, statistical analysis and decision making, develop and improve objectives, strategies, tactics and key performance indicators (measures).

#### 2001 – 2007 City of Milwaukee

##### *O&M Manager – Buildings and Fleet*

Development of staffs, grants, programs, training and budgets (capital and O&M), USGBC liaison, resource management, sustainable development, project management, technology implementation and integration of digital systems, site development for public demonstration and academic advantage,

intergovernmental and private/public partnering, funding and economic outcome analysis, staff and public presentations, and management of operations research and responsibility for 220 facilities.

**2001 – Current**

**Concordia University Wisconsin**

*Adjunct Professor*

Class instruction, program development:

**Graduate Courses:** Applied Statistical Methods and Managerial Economics, *NEW course: Sustainable Business Practices*

**Undergraduate Courses:** Mathematics (with introductions to six sigma, quality management, decision science and mathematical modeling), Statistical Methods, Lean, Six Sigma, Criminal Justice Statistics, Macroeconomics, Microeconomics & General Economics

**1997 – 2001**

**City of Milwaukee**

*Management Facilities Engineer – Buildings and Fleet*

Optimizing operating staff development, project management, engineering management, energy management, technology upgrades & contracting projects, products and services & general operations management of all O&M staff

**1997 – Current**

**Milwaukee Area Technical College**

*Adjunct Instructor*

Power Engineering I, Power Engineering II, Energy Technology Nature and Society

Lecturer to public high school teachers on green careers and various state-wide presentations.

**1984 – 2001**

**Milwaukee Public Schools**

*Engineer III & Trainer*

Facilities management, operations management, plant operations, power engineering training, energy management, project coordination, site based management – 160 buildings

## **Education**

**Marquette University**

*Ph.D. Nonlinear Dynamics:*

*interdisciplinary business, engineering and psychology*

Dissertation: linear and nonlinear comparative analyses of energy innovation diffusion. Application to institutional change, business performance modeling, nonlinear dynamics, statistical analysis and decision science

**Concordia University Wisconsin**

*Master of Business Administration*

**Concordia University Wisconsin**

*Undergraduate Degree: Management*

**Milwaukee School of Engineering**

*HVAC Controls & Design*

HVAC engineering, systems and design

**Milwaukee Area Technical College**

*Course work – 4 - year college transfer*

**Milwaukee Area Technical College**

*Electrical Maintenance I, II, & III*

Preparation for electrician license

**Milwaukee Area Technical College**

Power Engineering I & II

**Licenses, Certificates & Conference Attendance**

University Undergraduate Teaching Approvals: (current)

- 1) Statistical Methods 2) Mathematics 3) Economics 4) Developmental Mathematics 5) Criminal Justice Statistics 6) Lean 7) Six Sigma and 8) Organizational Behavior

University Graduate Teaching Approvals: (current)

- 1) Applied Statistics 2) Managerial Economics 3) Sustainable Business Practices

Teaching Certifications, State of Wisconsin. Wisconsin Technical College System (renewable)

- 1) Business 2) Workforce Development 3) Math for HVAC/R & Power Engineering

Educational Supervision Certification (current) State of Wisconsin. Wisconsin Technical College System.

- 1) Educational Supervisor

State of Wisconsin: HVAC Contractor (current)

State of Wisconsin: Equal Opportunity Intake Advisor (current)

City of Milwaukee: Electrician's License (renewable)

City of Milwaukee: Stationary Engineer's License (renewable)

Johnson Controls: METASYS for Facilities' Managers

Eagle Technology: Computerized CMMS

Eagle Technologies: METASYS Interface Training

Milwaukee Area Technical College: Chemical Control

University of Wisconsin: Code Compliance for Facilities

University of Wisconsin: Preventative Maintenance and Repair of Buildings

Sustainable Facilities Summit – July 2006

**Grants – awarded**

Name of grantor, fiscal agent, grant period & PIs	Title	Purpose	Outcome	Amount
National Science Foundation – 2012 – 2016 Peter Crabtree and Joseph Jacobsen	BEST ATE CENTER	National clearing house for energy technology, HVAC and energy management curriculum	Faculty from across the country will attend three week-long events every year for four years.	300,000
Wisconsin Energy Research Consortium (WERC) 2012-2013 Jeong-Han Woo, Carol Menassa & Joseph Jacobsen	Retrofit Aging Buildings	Awarded – working on feasibility of study	Energy tool for aging buildings and interconnection to smart grid systems	100,000
Wisconsin Energy Research Consortium (WERC) 2012-2013 David Yu & Joseph Jacobsen	Microgrid	Awarded – working on feasibility of study	Microgrid design	100,000
US Department of Labor WISTEC – 2009-2010 Joseph Jacobsen	Sustainable Facilities Operations (SFO) and Energy Engineering Technology	Develop 7 core courses in sustainable facilities operations.	New degree in SFO, certificate in SFO and EET, 7 new courses titled: 1) SFO, 2) LEED, 3) Measurement and Verification, 4) Energy Auditing, 5) Commissioning, 6) Energy Technician, 7) Sustainable Systems Performance	21,000

	(EET)			
US Department of Energy 2009-2012 David Yu & Joseph Jacobsen	Wind 2020	Develop a certificate in Wind Energy	2 wind courses: introduction and advanced and a general energy course	310,000
US Department of Energy 2010-2012 Joseph Jacobsen & David Yu	Advanced Energy Technology	Develop a certificate in advanced energy technical studies	10 courses in advanced energy engineering technology, intelligent lab, marketing, materials, 3 DACUMs, 3 new advisory committees	740,000
Wisconsin Technical College System - NEO 2010-2011 Joseph Jacobsen	Quality Engineering Technology	Major modification of the Industrial Engineering degree	New degree in Quality Engineering Technology, 2 certificates in Six Sigma and a new certificate in Lean.	143,000
Wisconsin Technical College System - RISE 2011 Joseph Jacobsen & Gloria Pitchford-Nicolous	Green Technologies	Develop a pathway from pre-college to Environmental Health and Water Quality or Sustainable Facilities Operations.	Two new courses that ladder to the two degrees and a certificate in environmental studies.	20,000
Milwaukee Workforce Investment Board 2011	Photovoltaic	Develop three sections of a photovoltaic installation helper certificate for neighborhood youth.	Modification of existing courses to	10,000
Milwaukee Community Service Corp 2011-2012	Develop a solar certificate	Develop a solar certificate with an emphasis on general energy systems and power engineering.	Under development	100,000
Milwaukee Community Service Corp 2011 Chris Lipsau	Geothermal	Develop a course and deliver a course in general geothermal technology	Developed a course and delivered geothermal course at ECAM	10,000
Focus on Energy and We Energies - 2006 Joseph Jacobsen	Install Photovoltaic and geothermal systems	Install Photovoltaic and geothermal systems at the KGMB facility	Installed photovoltaic and geothermal systems at the KGMB facility	\$100,000
We Energies, Focus on Energy & Milwaukee School of Engineering - 2004 Joseph Jacobsen	Microturbine	Install a 60kW microturbine, DG-CHP optimization	Installed a 60kW microturbine, DG-CHP optimized the most instrumentated microturbine in the world.	\$150,000

## Teaching Methods

Traditional face-to-face full semester

Online – electronic media

Accelerated

International classes

Multiple way video

Multiple language and translations

Graduate Seminar

Video recorded

Webinar

## **Professional Memberships – past and present**

Milwaukee Water Council  
Union of Concerned Scientists  
United States Green Buildings Council  
Society for Chaos Theory in Psychology and Life Sciences  
Wisconsin Association of Equal Opportunity  
American Management Association  
American Society of Quality  
Association of Energy Managers  
Environmental Engineers & Managers Institute  
Facility Managers Institute  
Building Owners and Managers Association  
International Facility Managers Association  
Cogeneration & Competitive Power Institute  
Energy Service and Marketing Society  
Society for the Advancement of Management  
International Maintenance Institute

## **Short Presentations**

The next generation of water industry occupations  
Depletion, Pollution, Migration and Population: revisiting considerations from the 60s and 70s  
Business Performance Modeling: regions of optimal performance  
Sustainable Business Practices  
Operations Research in Manufacturing  
Green Manufacturing  
Performance Measures in the Workplace: Energy & Water  
Performance Measures in the Workplace: People  
An Introduction to Decision Making  
Transforming Education: teaching physics, biology, social science and business in one course titled Water  
American Public Works Association: Speaker: Business Performance Modeling  
Applications of STEM to Sustainability  
Academic Web Site Development  
*Feasibility, Operation and Demonstration of a Combined Heat & Power Microturbine*  
Promoting Energy Technology to Large Energy Users  
Speaker: green technologies in buildings: Arnold and O. Sheridan – Madison Wisconsin

## **Projects**

### ***Managerial & Program***

American Colleges & Universities Presidents' Climate Commitment – baseline and climate action plans  
American Society for Quality – 4 part series web-seminar: Seeking Sustainable Success 2009/2010 – currently between the second and third session  
Develop a curriculum/program quality engineering technology  
Develop a curriculum/program for Environmental Health and Water Quality Technology  
Develop a curriculum/program for Energy Engineering Technology  
Develop a curriculum for Sustainable Facilities Operations  
Co-chair of the Green Energy Summit - 2010  
Chair of the Water Tract for the Green Energy Summit – 2009-2010  
Executive Committee of the Green Energy Summit – 2010  
Executive Committee of the Renewable Energy Summit - 2009  
Internal and External Steering Committees: Energy Efficiency and Advanced Manufacturing Center  
Conduct three-credit, four-day graduate credit workshop in Managerial Economics – Quito Ecuador (September, 2008)  
Developed the first Sustainable Facilities Management AAS degree in the Midwest – MATC  
Partner with the USGBC on LEED AP technical training program – MATC  
Sustainable Operations Training Program – City of Milwaukee  
Resolution and first Energy Performance Contract RFP for the City of Milwaukee  
Evaluation Team of Energy Performance Contracts – MATC  
Evaluation Team of 450 kW Photovoltaic Farm - MATC  
Technician Training Program  
Organizational Training and Development for Operations Management Personnel  
Commissioning Building Systems for Green Buildings  
Milwaukee Mayor Tom Barrett's Green Team: Private Sector Group  
US Green Building Council – LEED registration  
Wisconsin Machine Tool Show – Lean and Green in Manufacturing - 2009

### ***Technical / Engineering***

ECAM geothermal system installation - 2011  
Oak Creek Campus solar thermal system installation - 2011  
Active Energy Management Feasibility, Design, Installation and Demonstration  
Energy Performance Contract – MATC/City of Milwaukee/Johnson Controls  
Multiple Web Site Developments: academic and industrial performance indicators

## **Publications & Conference Presentations**

Book: Jacobsen, Joseph. (2011) Sustainable Business and Industry: designing and operating for social and environmental responsibility. Milwaukee. American Society for Quality Press.

Jacobsen, J., Guastello, S. (2011). *Diffusion models for innovation: S-curves, networks, power laws, catastrophes, and entropy*. Nonlinear Dynamics in Psychology and Life Sciences. In press

Jacobsen, J., Mason, M., LaFontsee, D. (2009). Green Jobs: what are they, who needs them and who's doing the training. proceedings of the Climate Change and Green Jobs: helping businesses prepare for new expectations and new rules conference. University of Wisconsin Law School, Madison Wisconsin. Sept. 18.

Jacobsen, J. (2009). Innovative Education in the Water Sector: Interdisciplinary Great Lakes Education, From North America to Africa. proceedings of the International Conference of Engineers Without Borders. Milwaukee. March 27.

Jacobsen, Joseph. (2009). Service and trade group performance: linear and nonlinear models and optimal 3D performance surface. proceedings of the Society for Chaos, Psychology Theory and Life Sciences conference, of 2009, Marquette University, Milwaukee, Wisconsin, USA on July 23-25, 2009.

Jacobsen, J., Guastello, S. (2007). Nonlinear models for the adoption and diffusion of innovation for industrial energy conservation. Nonlinear Dynamics in Psychology and Life Sciences. January, 2007.

Koehler, G., Dooley, K., Dozier, K., Jacobsen, J., Waltuck, B. (2006). Complexity tools & public policy analysis: do methods, explanations and results recast policy formation and strategies? proceedings of the Society for Chaos Theory in Psychology & the Life Sciences. Johns Hopkins University, Baltimore MD, August 3-5, 2006.

Jacobsen, Joseph. (2006). Comparing linear to nonlinear models: innovation information and innovation adoption, cusp catastrophe and power laws. proceedings of the International Nonlinear Sciences Conference (INSC) of 2006, University of Crete, Medical School, Heraklion, Crete, Greece on March 10-12, 2006.

Jacobsen, J., Guastello, S., (2005). Comparing linear to nonlinear models: innovation information and innovation adoption, facilities and plant managers' energy outlook. proceedings of the Society for Chaos, Psychology Theory and Life Sciences conference, Denver CO: July, 2005.

Swedish, M., Wrate, G., Betz, F., Blakemore, E., Greguske, L., Jacobsen J., (2004). A 60-kW microturbine demonstration facility phase II: instrumentation, website development, and evaluation. Proceedings of the 2004 American Society of Engineering Education Annual Conference & Exposition Copyright © 2004, American Society for Engineering Education

## **Standing Committees – past and present**

Secretary – Society for Chaos Theory in Psychology and Life Sciences

Public Relations Officer – Society for Chaos Theory in Psychology and Life Sciences

Diversity Committee (City of Milwaukee: Buildings & Fleet)

Sustainable Facilities Committee (Milwaukee Area Technical College)

Energy Efficiency and Advanced Manufacturing (ECAM) **internal** committee (co-chair)

Energy Efficiency and Advanced Manufacturing (ECAM) **external** committee (co-chair)

Oak Creek Council Member

Renewable Energy Summit - Executive Committee –

Green Energy Summit: all sub committees



## **Board of Director, past and present**

Keep Greater Milwaukee Beautiful  
Engineers and Scientists of Milwaukee  
Wisconsin Energy Research Consortium

## **Awards**

**Graduate Faculty of the Year 2010 – Concordia University Graduate School**

**Project of the Year (2004). Daily Reporter. best of the rest. Anderson Water Tower Microturbine April 22, 2004.**

## **Volunteer**

Tutor in mathematics: Milwaukee Public School students: Milwaukee  
Tutor: How to fill out a job application, Lapham Park Alternative School, Milwaukee  
2010 – Milwaukee Boys Club

LinkedIn Page

<http://www.linkedin.com/pub/dr-joseph-jacobsen/12/a84/67a>

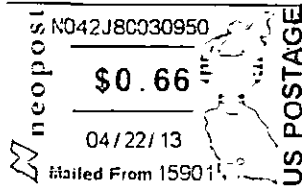
YouTube Channel – Music

<http://www.youtube.com/user/jakejacob2010/videos>



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