GLOBALCON 2015

Energy, Power, & Facility Management Strategies & Technologies

Philadelphia, Pennsylvania, USA 17 – 18 March 2015

ISBN: 978-1-5108-1018-1

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2015) by AEE Energy Books All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact AEE Energy Books at the address below.

AEE Energy Books Attn. Linda Hutchings 700 Indian Trail Lilburn, Georgia 30047

Phone: (770) 925-9388 Fax: (770) 381-9865

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2634

Email: curran@proceedings.com Web: www.proceedings.com

TABLE OF CONTENTS

CHAPTER 1	New Jersey Energy Resilience Bank 1 Mitch Carpen, Executive Director, New Jersey Energy Resilience Bank
CHAPTER 2	Energy Saving Improvement Programs 14 Michael Thulen, ESIP Coordinator, New Jersey Board of Public Utilities
CHAPTER 3	Distributed Generation & Energy Management: The Cornerstones of Energy Surety James Dankowski, Government Segment Manager, Eaton
CHAPTER 4	LED Lighting Advancements in Energy Management 24 Edwin W. Dovel, Vice President of Public Sector, Orion Energy Systems, Inc.
CHAPTER 5	Geothermal – The Energy under our Feet 32 Jack P. DiEnna Jr., Executive Director, Geothermal National & International Initiative
CHAPTER 6	Massachusetts' Innovative Accelerated Energy Program 46 Kevin Bernier, C.E.M., LEED AP, CCP, Chief Operating Officer, Fort Hill Companies Jenna Ide, LEED AP, AICP, Deputy Director of Energy, Massachusetts Division of Capital Asset
CHAPTER 7	Ameresco & McGuire Air Force Base Realize Energy Savings 59 Joseph Vitella, P.E., C.E.M., MBA, M.Eng., Manager of Engineering & Business Development, Ameresco Al Williams, Federal Business Solutions Director, Ameresco
CHAPTER 8	McCormick Achieves Net Zero Status at its Main Distribution Center 67 Jeff Blankman, Sustainable Manufacturing Manager, McCormick & Company
CHAPTER 9	Upenn's Century Bond Program - Implementing Campus Wide Energy Efficiency Upgrades John Zurn, Esq., Century Bond Program Director, University of Pennsylvania
CHAPTER 10	Insights into the PJM Sequential Reserve Market 88 Anthony Karwoski, Resource Efficiency Manager, Sain Engineering Associates, Inc.
CHAPTER 11	Water System Reduces Energy Cost by Integration, Automation & Infrastructure Reengineering Joseph A. Guagno, P.E., C.E.M., President, Instrumentation, Control & Energy Engineering, LLC Carolyn McCreary, ICMA-CM, Township Manager, Plumstead Township
CHAPTER 12	Combined Heat and Power System for a Municipal Wastewater Treatment Facility Richard Crane, P.E., BCEE, Vice President, T&M Associates
CHAPTER 13	Building Investor Confidence 116 Tracy M. Phillips, C.E.M., LEED AP, President, Energy Consultant, 7th Gen Energy Solutions
CHAPTER 14	Integrating Financing & Insurance Options with Untapped Revenue Streams Mike Gordon, CEO, Joule Assets
CHAPTER 15	Trials & Tribulations of Obtaining Custom Incentives from Utilities 133 Richard J. Costello, P.E., C.E.M., MSEM, BSME, President, Acela Energy Group, Inc.

CHATPER 16	Pitfalls to Avoid in the New Energy World 140 Catherine Luthin, President, Luthin Associates, Inc.
CHAPTER 17	Best Practices for Identifying & Executing Energy Projects 144 William A. Broadhurst, P.E., C.E.M., G.B.E., Campus Energy Manager, Princeton University
CHAPTER 18	Driving through Integrated Energy Retrofits 148 Crissy Haley, LEED EB:O&M, Senior Project Manager, Jones Lang LaSalle
CHAPTER 19	Pitfalls to Avoid in the Energy World 154 Robert L. Berninger, C.E.M., C.E.A., C.S.D.P., General Manager - Plant Operations, Energy & Engineering, Memorial Sloan Kettering Cancer Center
CHAPTER 20	Commodity Energy Conservation Project Procurement 158 Rakesh Parasuraman, C.E.M., C.E.A., Director - Commodity Management, Luthin Associates, Inc.
CHAPTER 21	Demand Response in Schools 165 Ron Marinelli, Facility Manager / Energy Manager, Hackettstown School & Great Meadows School District
CHAPTER 22	LED Lighting & Controls for DR & CA Codes 174 Sandra Goeken, President, Goeken Group/PolyBrite, Intl
CHAPTER 23	Integrating Thermal Energy Storage, District Cooling & CHP 202 James Knight, Senior Associate Director - Energy & Utilities, Bucknell University
CHAPTER 24	CHP Plant Pushes over Half Million Microturbine Run Hours 217 Jeff Beiter, Managing Partner, Capstone Distributor, E-Finity Distributed Generation
CHAPTER 25	Philadelphia Energy Management & Citywide Benchmarking 222 Rich Freeh, City Energy Project Manager, Mayor's Office of Sustainability Adam Agalloco, Energy Manager, City of Philadelphia Energy Office
CHAPTER 26	Energy & Cost Reduction Projects Recent & Present 230 Kevin McCarthy, P.E., Senior Director, Building Systems & Operations, The Children's Hospital of Philadelphia
CHAPTER 27	Natural Gas Available to Medical Centers beyond the Pipeline Mary Evslin, Co-Founder, NG Advantage, LLC 242
CHAPTER 28	Central Plant Retro-Commissioning at Boston Logan International Airport - Critical 247 Success Factors Abbe E. Bjorklund, P.E., C.E.M., LEED AP, Vice President, Sebesta Blomberg & Associates
CHAPTER 29	"Market Aware" High Performance Buildings - Participating in Fast Load Response Utility Programs with a Single Open Standard Methodology 258 Jim Boch, Principal Electrical Engineer, IPKeys Technologies LLC
CHAPTER 30	How Microgrid is Changing the Energy Landscape 265 Honorable William (Bill) C. Anderson, Director, Strategy & Business Development, Eaton
CHAPTER 31	Biomass Heat Energy 270 Paul Lewandowski, Sales Director, AFS Energy Systems