# Workshops

### Conserving Energy Now in Hawaii's Buildings

This presentation characterizes the energy usage patterns of buildings in Hawaii and reviews various Energy Conservation Opportunities (ECOs) that can be implemented to reduce energy consumption. These ECOs include building envelope, mechanical system, and electrical system upgrades that can be applied in both new construction and retrofit projects. The potential LEED credits, available tax incentives and utility rebates that can be applied to these ECOs will also be explored.

Joel Yuen
*President*
*InSynergy Engineering, Inc.*
*Honolulu, HI*

*Mr. Yuen is President of InSynergy Engineering, Inc. (formerly Cedric Chong and Associates), and is a registered mechanical engineer in the State of Hawaii, a registered mechanical and fire protection engineer in the State of Washington and a LEED AP design professional. He has over 24 years of consulting experience, and is a graduate of the University of Hawaii with a BS in Mechanical Engineering, and the University of California at Berkeley with a MS in Mechanical Engineering.*

### Energy Efficiency Strategies Unveiled for Offices & Condominiums

### Central Pacific Plaza (CPP)

Bring your office building into the 21st century! You too can join the ranks and be one of the remarkably successful "Energy Star" buildings here in the islands. Come to this session and learn about energy solutions that you can implement now and how to avoid those nasty building energy challenges.

John White
*Chief Engineer*
*Central Pacific Plaza*
*Honolulu, HI*

*Mr. White is a career professional in building engineering and maintenance. He is currently the Chief Engineer at Central Pacific Plaza and a Senior Engineer at ABM Industries, Inc, the largest single service company in the US. During his seven year tenure at CPP he implemented and project managed several energy saving projects including the complete change out of the chilled water plant, the installation of Direct Digital Control (DDC) on the air distribution system and an EMS. He introduced the concept of preventative group re-lamping to CPP and has recently retrofitted to the Super T8 Lamp and SuperMax ballasts. Importantly, he was one of the first to initiate the Energy Star Award for office buildings and as a result CPP has been awarded four consecutive Energy Star certifications leading to hundreds of thousands of dollars in energy savings.*

### Hawaiki Tower Efficiency

This workshop discusses the retrofit projects at Hawaiki Tower that reduced energy consumption 50%. The discussion will include how to measure accumulated energy savings from retrofit projects; creative opportunities and projects to further reduce energy consumption in high-rise facilities.

Paul McCurdy
*Resident Manager*
*Hawaiki Tower*
*Honolulu, HI*

*Mr. McCurdy has a BA in Business Economics, is a Professional Community Association Manager (PCAM), and holds his Construction Document Technologist (CDT) certificate and a current Hawaii Real Estate Salespersons license. Mr. McCurdy won the HECO Residential Energy Conservation Award twice, first in 1998 and again in 2004.*

## HECO ENERGY$OLUTIONS FOR BUSINESS UPDATE

### Energy$olutions for Business

With rising energy costs, energy efficiency becomes more important to businesses in order to remain competitive. HECO provides assistance to businesses by paying rebates for the installation of energy efficient technologies. Qualifying technologies will be covered in this workshop.

Bill Carreira
*Program Manager*
*Commercial & Industrial*
*Energy Efficiency Program*
*Hawaiian Electric Company*
*Honolulu, HI*

*Mr. Carreira is the Program Manager of the Commercial & Industrial Energy Efficiency Program at Hawaiian Electric Company. Mr. Carreira oversees a rebate program that awarded customers $3.4 million dollars in 2007 for installing energy efficient technologies. Prior to assuming his current responsibilities as an account manager he was responsible for major customers in six sectors including agriculture/private waste pumping, communications, food production, federal (non-DOD), private high schools/colleges, and all manufacturing and industrial. Mr. Carreira joined Hawaiian Electric Company in August 1999.*

### EnergyScout for Business Program

Businesses that are able to curtail their electrical power usage are eligible to receive financial incentives by participating in HECO's EnergyScout for Business Program. Businesses are already receiving thousands of dollars each year for agreeing to shed selected loads at their facility during power generation emergencies, all while helping to avert more serious forced outages to the grid.

Keith Block
*Director*
*Customer Efficiency Programs*
*Hawaiian Electric Company*
*Honolulu, HI*

*Mr. Block is currently the Director of Customer Efficiency Programs at Hawaiian Electric Company. In his previous position as Program Manager for the EnergyScout Program, he developed and managed the innovative program, which uses radio controlled switches on electric water heaters to disconnect power to the water heater in times of system emergencies. This program makes the Oahu electrical system more reliable by using the stored thermal energies in water heaters to supplement the system and possible eliminating more serious emergencies. Prior to managing this program Mr. Block was responsible for the implementation of Hawaiian Electric's Residential Customer Efficiency Programs. These programs promoted efficient water heating technologies such as solar and heat pumps. Before being assigned as the manager of the Residential Programs, Mr. Block managed three Commercial Customer Efficiency Programs designed to encourage businesses to install energy efficient equipment such as fluorescent lighting and efficient air conditioning in their business establishments. Mr. Block has a BS in Mechanical Engineering from San Diego State University.*

### Energy Efficiency and Demand Response: Technology Trends in California and the Nation

The presentation will cover new trends in the development and deployment of advanced technologies to accelerate demand response and energy efficiency programs in California and the country. Examples will include automated demand response (or Auto-DR) pilots that are now being offered

as part of DR programs by utilities in California, variable refrigerant flow air conditioners for commercial buildings and heat pump water heater development activities.

The presentation will also include the "Industry Technology Demonstration" project on energy efficiency that has been spearheaded by EPRI to accelerate the implementation of energy efficient technologies in the country.

Ammi Amarnath
*Technical Leader*
*Electric Power Research Institute*
*Champions Gate, FL*

*Ammi Amarnath is a Technical Leader in the Energy Utilization Program area at the Electric Power Research Institute (EPRI). His current focus is on the development, demonstration, and deployment of smart and efficient end-use devices, technologies and systems for the residential, commercial and industrial sectors, to address both energy efficiency and demand response.*

*Mr. Amarnath rejoined EPRI in 2007 as a team member of the Energy Efficiency Initiative. He was previously experience in distributed generation, energy storage, and other clean energy technologies, in addition to energy efficiency.*

*Mr. Amarnath received a BS degree in chemical engineering from India and an MS degree in chemical engineering from the University of California, Santa Barbara. He also holds an MBA degree from the University of Houston.*

## ENERGY FINANCING

### Spinning Straw Into-Gold—Energy "Profit Centers"

With energy costs at an all time high, never has it been more important to have a strategic energy plan that helps "the bottom line". The challenge is getting it past the CFO. Learn how to clear the financial hurdle by turning energy capital improvements into "profit centers".

Miles Kubo
*President / Chief Operating Officer*
*Energy Industries*
*Honolulu, HI*

*Mr. Kubo is President/COO of Energy Industries, an energy project developer that specializes in energy-efficiency and renewable energy. Mr. Kubo is a noted specialist in energy finance and holds an MBA from The Wharton School of the University of Pennsylvania.*

### Financing Options for Funding Your Energy Conservation and Alternative Energy Projects

Don't waste time thinking about how to fund your projects. You can effectuate your energy projects today with funding options from your bank. Leasing, bank loans, and power services agreements are some of the methods available to avoid the cost of waiting in this time of rapidly rising energy costs. Learn how to present the benefits of your projects to your financial officer and bank to make the most effective use of your time and resources.

Jaewon Kwak
*Vice President/Senior Lease Officer*
*Bank of Hawaii*
*Honolulu, HI*

*Mr. Kwak is Vice President of Equipment Leasing and Senior Lease Officer at Bank of Hawaii. He is a 15-year veteran of the bank and has worked as a Business Banker, Branch Manager, and Lease Officer. During his tenure, he has structured financing for alternate energy and equipment related to conservation measures in both the direct finance and power purchase agreement formats.*

### The Top 10 Profitable "Green" Strategies (Session is a webinar)

Most business leaders don't know how to profitably become more environmentally-friendly. Dr. Eric Woodroof, who is the Chairman of the Board for the Carbon Reduction Manager Training Program, will provide the "top ten" practical (and profitable) strategies to help your organization become "lean & green". Based on the performance of hundreds of facilities, Dr. Woodroof will discuss how to identify, calculate, market and implement carbon reduction strategies, as well as overcome the barriers that kill most projects. This talk combines cutting-edge information along with proven, practical techniques and solutions to global warming.

Dr. Eric Woodroof
*Chairman of the Board*
*Certified Carbon Reduction Manager Program*
*Santa Barbara, CA*

*Dr. Woodroof is the Chairman of the Board for the Certified Carbon Reduction Manager Program and he has been a Board Member of the Certified Energy Manager Program since 1999. Dr. Woodroof shows clients how to make more money and simultaneously help the environment. Dr. Woodroof has advised clients such as the U.S. Public Health Service, IBM, Pepsi, Ford, GM, Verizon, Visteon, JPMorgan-Chase, universities, airports, utilities, cities and foreign governments. He is also a columnist for several industry magazines, a corporate trainer and a keynote speaker. He is the founder of ProfitableGreenSolutions.com.*

### Developing & Sustaining Hawaii's Clean Energy Roadmap

Representative Morita discusses the development of policy and political challenges to creating a long-term strategy for Hawaii.

Representative Hermina M. Morita
*14th District Representative*
*Hawaii House of Representatives*
*Honolulu, HI*

*Representative Hermina M. Morita currently serves as the Chair of the House Committee on Energy & Environmental Protection. She was elected to the State House of Representatives in 1997, representing District 14, East & North Kauai. Representative Morita has worked to enact numerous energy-related policies such as renewable portfolio standards, net-metering, pay as you save, solar water heater mandate, and greenhouse gas emissions reduction to name a few. She is also a member of the Advisory Committee on Energy of the National Conference of State Legislature's Energy Project and National Committee on Electricity Policy.*

### Interconnection Processes and Requirements for Renewable Energy Projects

Come and learn the important processes and requirements needed to connect your renewable energy project to the utility grid. HECO's Net Energy Metering Standard Interconnection Agreement Coordinators will review step-by-step HECO's interconnection application approval process.

Ruby Shimabukuro
*Account Manager*
*Hawaiian Electric Company*
*Honolulu, HI*

*Ms. Shimabukuro is responsible for coordinating the Standard Interconnection Agreements and working with major residential developers. She has previously worked in HECO's Energy*

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*Efficiency Department and at San Diego Gas & Electric as an engineer. She holds a BS degree in Mechanical Engineering from the University of Hawaii.*

Kevin Kuo
*Senior Technical Services Engineer*
*Hawaiian Electric Company*
*Honolulu, HI*

*Mr. Kuo provides technical support to commercial and industrial customers concentrating in the area of HVAC, solar and heat pump water heating systems. He is also the Net Energy Metering coordinator. Prior to joining Hawaiian Electric, he was a project manager for one of the largest mechanical contractors in Hawaii. He holds a BS degree in Mechanical Engineering from the University of Hawaii.*

## RENEWABLE ENERGY TECHNOLOGIES

### Honolulu Seawater: Where is it Going?

Discussion will include a brief description of seawater air conditioning, a summary of benefits provided, development potential on Oahu; and an update on the status of the Downtown Honolulu Seawater Air Conditioning District Cooling Project which is projected to provide first service in mid-2010.

Dr. David Rezachek, P.E.
*Associate Development Director*
*Honolulu Seawater Air Conditioning*
*Honolulu, HI*

*Dr. Rezachek is the Associate Development Director for and full-time consultant to Honolulu Seawater Air Conditioning, LLC. Dr. Rezachek has more than 30 years of experience in energy and environmental systems. He is a registered professional mechanical engineer in the State of Hawaii. Dr. Rezachek is also the owner of and principal consultant for, Rezachek & Associates, an international energy and environmental engineering consulting group.*

### Wave Energy

Oceanlinx, in collaboration with HECO, is developing a wave energy project on the Island of Maui which will utilize oscillating water column (OWC) technology. It is expected to have a peak generating capacity of up to 2.7 MW. This presentation will elaborate on the technology and some of the project related issues pertaining to deploying wave power generating facilities in Hawaii specifically, and in the US in general.

Tom Denniss
*Executive Director/Chief Technology Officer*
*Oceanlinx*
*Botany, New South Wales, Australia*

*Dr. Denniss founded Oceanlinx in 1997 and invented the core technology that has been commercialized by the company. He spent nine years as the company's first CEO, and is now Chief Technology Officer and an Executive Director of the company. Tom has a PhD in Mathematics and Oceanography, and has had a varied professional career, including as a university professor and investment banker, prior to moving full-time to technology development in the field of wave energy.*

### H-Power: One Person's Waste, Another's Energy

HPower is Oahu's waste-to-energy facility located in Campbell Industrial Park. Primarily built to reduce the amount of solid waste filling landfills, HPower is also a source of renewable energy providing 57 megawatts of electricity for residents and businesses on Oahu. Learn more about HPower and its future expansion plans.

Frank Doyle
*President*
*Waste Resource Management*
*Kapolei, HI*

*Mr. Doyle is President of Waste Resource Management, an environmental planning and management firm established in 1989 to service government agencies within the Pacific Rim. Mr. Doyle is a Life member of the American Society of Civil Engineers, a registered Professional Engineer in the State of Hawaii, a member of the American Public Works Association and a member of the Solid Waste Association of North America. Mr. Doyle has broad and diversified engineering experience. In August 2001 Mr. Doyle was appointed as the Deputy Director for the Department of Environmental Services and subsequently appointed as Director in May 2003. Mr. Doyle graduated from Pennsylvania Military College with a BS in Civil Engineering and completed his MS in Civil Engineering at the University of Hawaii specializing in Environmental/Sanitary Engineering.*

### Sustainability Management: Insights from 200 Existing Buildings

Baseline data collected from more than 200 existing commercial, retail, and industrial properties reveals insights into the biggest challenges and the biggest opportunities in implementing sustainability management programs. The data comes from across the country, including more than 20 properties in Hawaii.

George Benda
*Chief Executive Officer*
*Chelsea Group*
*Maunaloa, HI*

*Mr. Benda is the CEO of Chelsea Group, Ltd., a building sciences consulting firm based in Hawaii with operations in Chicago and Phoenix. With more than 35 years of professional experience, he led the Chelsea Group in developing innovative sustainability management programs for commercial real estate owners and managers.*

## STATUS OF PV & SOLAR WATER HEATING IN HAWAII

### From The Sun To The Plug

Conversion to photovoltaic systems by Hawaii residents and businesses are accelerating at an increasing rate. The pace of solar water heating system installations is approaching that of the early 1980s. Will these trends continue? Unprecedented energy cost increases and changing public policies are creating opportunities and challenges to getting more solar installed. Perspectives and insights are shared.

Ron Richmond
*Manager of Business Development*
*Inter-Island Solar Supply*
*Honolulu, HI*

*Mr. Richmond is Manager of Business Development at Inter-Island Solar Supply where he focuses on expanding PV and solar water heating markets in Hawaii. Ron is a veteran solar specialist with extensive background in both solar technologies. He recently "retired" from Hawaiian Electric Company where he developed Hawaii's first set of uniform solar water heating systems standards and specifications and coordinated HECO's net energy metering program. Ron brings the unique perspectives of the solar industry and of the utility to distribute solar.*

### Retrocommissioning (RCx)

Retrocommissioning (RCx) represents one of the key concepts and key value generating aspects of a successful sustainability management program in an existing building. This presentation will cover basic concepts, how the changing versions of LEED-EB treat RCx, and use case studies to highlight effective methods in RCx.

George Benda
*Chief Executive Officer*
*Chelsea Group*
*Maunaloa, HI*

*Mr. Benda is the CEO of Chelsea Group, Ltd., a building sciences consulting firm based in Hawaii with operations in Chicago and Phoenix. With more than 35 years of professional experience, he led the Chelsea Group in developing innovative sustainability management programs for commercial real estate owners and managers.*

### The LED Paradigm

Are light-emitting diodes (LEDs) the next lighting source? This workshop will address LED lingo, lifetime, heat production and quality. We will explore developments, how the high power white LEDs match up against traditional lighting and what to expect in the future. Finally, we will discuss the paradigm shift required for LEDs to be matched to the appropriate applications.

Daryl DeJean
*President*
*Emerging Technologies Associates*
*San Diego, CA*

*Mr. DeJean draws on more than 20 years of experience in energy efficiency. His company, Emerging Technologies Associates, Inc., provides project management services for several utility companies' Emerging Technology Program. He is currently involved in the assessment and evaluation of (LEDs) in numerous applications. Prior to starting his company, Mr. DeJean led the Commercial Segment for one of the nation's leading utility companies. He participates in various DOE Solid State Lighting (SSL/LEDs) events and committees. Mr. DeJean has conducted several presentations at national forums (CEE, Strategies in Light) on LEDs presenting how the California Investor Owned Utilities (IOUs) are approaching the incentive programs for LEDs.*

### LEED and Lighting Controls

This workshop will cover lighting controls as applied to LEED-NC 2.2. Discussions will be on how lighting controls can be used to achieve higher levels of LEED certification with credits in optimizing energy performance, controllability of systems and innovation in design.

Charles Knuffke
*Western Regional Manager*
*Watt Stopper/Legrand*
*San Francisco, CA*

*For 21 years Mr. Knuffke has worked with engineers, contractors and owners to design, specify, and commission lighting control systems for wide-ranging projects. Now he is the Western Regional Manager at Watt Stopper/Legrand where he has gained experience in occupancy sensor applications as well as an understanding of effective daylighting control systems.*

### State of the Art Lighting Retrofit of the Hawaii Convention Center

The Convention Center hired Stan Walerczyk to specify a state of the art lighting retrofit, which included basic grade and reduced wattage T8s to better T8s, upscale kits, occupancy sensors in stairwells, eliminating dimming ballasts, and replacing 800 400W metal halide hibays. This workshop will start detailing key parts of the audit files, followed by a tour of the Convention Center that have and have not been retrofitted yet.

Stan Walerczyk
*Principal*
*Lighting Wizards*
*Walnut Creek, CA*

*Mr. Walerczyk is Principal of Lighting Wizards. His 19 years of experience includes distribution, maintenance, retrofit contracting, 3rd party review, design, new product development assistance, consulting, and research for the Department of Energy and California Lighting Technology Center. Stan has written over 30 articles, presented over 400 seminars, and has won several awards. Complete bio is available at www.lightingwizards.com.*

### Sempra Energy's Activities in Solar PV, Wind, Energy Efficiency, & Plug-In Hybrid Electric Vehicles

Sempra Energy is an $11 billion revenue energy company based in San Diego, California. In 2008, Sempra was named as one of America's most Admired Companies by Fortune magazine. Sempra Utilities supply energy from both traditional and renewable resources, and is at the forefront in implementing energy efficiency and Plug-In Hybrid Electric Vehicles programs. Sempra Generation is developing several large-scale wind and solar photovoltaic projects, including a 10 MW solar photovoltaic project in Nevada which will enter operation by December 2008. Learn more about Sempra's commit to clean and reliable energy from Ed Guiles, Executive Vice President Sempra Energy, and Mike Allman, CEO Sempra Generation.

Mike Allman
*Chief Executive Officer*
*Sempra Generation*
*San Diego, CA*

*Mr. Allman is president and CEO of Sempra Generation, which operates power plants for the competitive market in North America. Sempra Generation is a subsidiary of Sempra Energy, a San Diego-based Fortune 500 energy services holding company whose subsidiaries provide electricity, natural gas and value-added products and services. The Sempra Energy companies' 13,500 employees serve more than 29 million consumers worldwide. In his current job, he is responsible for the operation of merchant power plants throughout North America. Sempra Generation operates power-plant assets in Nevada, California, Arizona and Mexico. Prior to his job with Sempra Generation, he was chief financial officer of Sempra Global, the umbrella organization for Sempra Energy's businesses operating in competitive energy markets. Before becoming chief financial officer, Mr. Allman was vice president of Audit Services for Sempra Energy, reporting to the board of directors and audit committee, and supervising the internal auditing practices of Sempra Energy and its subsidiaries. He also was president of Sempra Technology Ventures, which provided energy and telecommunications products and services to selected national and international markets. He also served as vice president of Corporate Planning and Development for Sempra Energy. In this job, he oversaw strategic planning, mergers and acquisitions, and business development for the corporation. He has a MBA from the University of Chicago Graduate School of Business and a BS in Chemical Engineering from Michigan State University. He is a Certified Management Accountant and a Certified Internal Auditor.*

Ed Guiles
*Executive Vice President*
*Sempra Energy*
*San Diego, CA*

*Mr. Guiles is executive vice president of Corporate Development for Sempra Energy, a San Diego-based Fortune 500 energy services holding company whose subsidiaries provide*

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## Workshops

*electricity, natural gas and value-added products and services. The Sempra Energy companies' 13,500 employees serve 29 million consumers worldwide. In his current job, he is responsible for identifying and developing new market opportunities for Sempra Energy and focusing on the long-term direction of the company. Before this job, he was chairman and CEO of San Diego Gas & Electric (SDG&E) and Southern California Gas Co. (SoCalGas), Sempra Energy's California regulated utilities. Prior to that role, he was president of SDG&E from 1997 to 2000. From 1993 to 1997, Mr. Guiles served as senior vice president of Energy Supply for SDG&E, overseeing the company's procurement, generation and transmission of electricity and natural gas. He serves on the California Chamber of Commerce Board. He is a 1987 LEAD San Diego graduate and, in 2004, he received the LEAD Graduate of the Year Award. He is also a member of the Los Angeles World Affairs Council. He has a BS in Mechanical Engineering from the University of Arizona, and is a graduate of the executive programs at the University of Southern California and the Edison Electric Institute.*

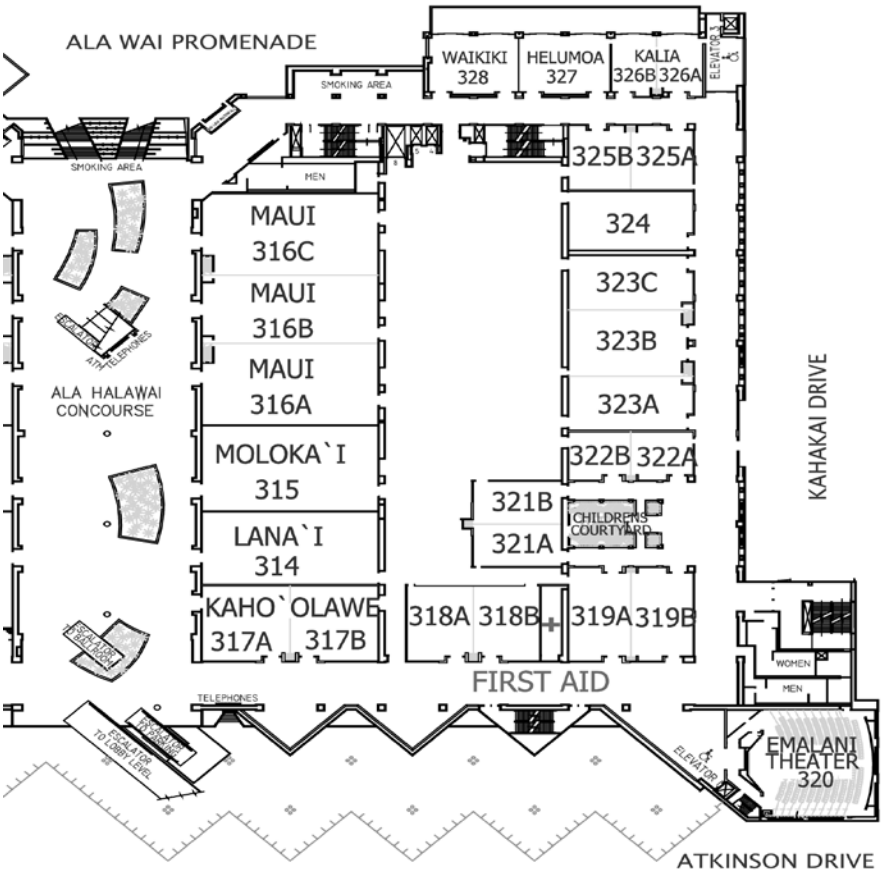
### High Efficiency Power Supply Technology Opportunities

This workshop will be an overview of recent developments surrounding new electronic power supply efficiency legislation and research. The new '80 plus' standard for computer power supplies which raises the bar by a 10 percent average and industrial and commercial power supply efficiency opportunities will be discussed. Also, the latest EPRI demonstration projects will be reviewed on how retrofit programs have worked to date and how the power quality and system compatibility related performance of new high efficient supplies compares to those of prior less efficient designs.

Doug Dorr
*Program Manager*
*Electric Power Research Institute*
*Champions Gate, FL*

*Mr. Dorr is a Program Manager in the Energy Efficiency and Power Quality area of the Power Delivery and Utilization Sector. His current research activities focus on energy efficient technology demonstration projects, PQ consulting, and web based power system data acquisition. For the past 17 years, Mr. Dorr has specialized in testing, research and training related to all types of energy related research including, energy audits, distributed generation, power quality, and test & measurement.*

## Meeting Rooms Third Floor, Hawaii Convention Center




### New HVAC Technologies

Digital technology and power electronics have made huge advancements that have revolutionized electro-technologies. Learn about new technologies like the digital electronically controlled, magnetic bearing, variable speed centrifugal compression Turbocor compressor.

Duane Ashimine
*Executive Vice President / Chief Technology Officer*
*Energy Industries*
*Honolulu, HI*

*Mr. Ashimine is Executive Vice President and Chief Technology Officer of Energy Industries. He was introduced to the energy industry when he served as an engineer for the Nuclear Submarine base at Pearl Harbor. He later joined Hawaiian Electric's Energy Services team as an engineer designing energy efficient systems domestically and power plants internationally. He has since designed such unique energy systems as a combined Photovoltaic and Thermal Energy Ice Storage facility, numerous CHP Cogeneration systems, Ozone Water Treatment systems, and a Flat Plate Solar Collector with Absorption Chiller System. Mr. Ashimine has published articles on Variable Frequency Drive technology and efficient Hot Water system designs.*
*He was recognized as the State of Hawaii's Technology Leader for 2007. He is a Certified Project Manager.*

### Control Systems—Top Ten Things to Know

Building management and control systems are growing in capability to save energy, lower operational costs and improve building occupant comfort. Come join a discussion about what a Building Control System can and should do for you. The workshop will focus on areas regarding central plant operations, space comfort and energy management.

Michael Chang
*Honolulu Branch Manager*
*Johnson Controls*
*Honolulu, HI*

*Mr. Chang has been providing Energy Conservation and Building Controls assistance to commercial facilities in Hawaii for over 16 years. He earned his Mechanical Engineering degree and a MBA from the University of Hawaii.*