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Fall 2010 \$6.95

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LOOKING BACK AT LEGACIES OF ACHIEVEMENT, LOOKING FORWARD TO

HILDA L. SOLIS
Secretary of Labor U.S. Department of Labor

Top Employers

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Frank McCoy editors@ccgmag.com





■he Hispanic Engineer & Information Technology list of Powerful Hispanics in Energy crackles with intensity. The highlycredentialed men and women profiled are innovative leaders in the private, federal, fossil fuel, nuclear, and alternative energy sectors. They include California, Mid-Atlantic, and New York utility execs that must keep consumers happy. There are entrepreneurs that oversee, respectively, a diversified fuel and service firm, a brokerage specializing in over-thecounter energy commodities, and a CEO using smart grid technology to match energy demands.

Among listed federal officials are the secretaries of the Interior and Labor, President Obama's top environmental policy advisor, a team leader overseeing Cold Warera nuclear waste disposal, and the director of the Energy Department's principal renewable energy research and development lab. There are also managers developing means to control energy transmission and distribution, and to provide alternative energy sources.

Their presence shows again that there is no area of science and technology where Hispanics cannot exercise power at the highest level.





·♦♦ CARLOS L. AGUILERA

Vice President and General Manager
Business Development, Exploration and Production
Africa and Latin America
Chevron

The Pursuit of Natural Gas

Carlos L. Aguilera has had a 30-year career in the global oil and gas business, and he is not slowing down. His responsibilities as vice president and general manager of business development for Chevron in Africa and Latin America include all commercial activities pertaining to Chevron's exploration and production business in the regions. He is accountable for three liquid natural gas projects. One development is under construction in Angola. Another is a joint venture with the Nigerian National Petroleum Corporation and includes a liquefaction facility and marine terminal. Ultimately, a pipeline will supply natural gas to several West African countries. During Aguilera's watch, Chevron is also building a gas-to-liquid (GTL) facility in Nigeria's delta region. It is projected to be able to convert 325 million cubic feet per day of natural gas into 33,000 barrels of diesel fuel per day, as well as liquefied petroleum gas, and GTL naphtha. And there is a third liquid natural gas project underway in Venezuela. A strong believer in workplace diversity, the executive, who was born in Cuba and lived in Wisconsin, is an executive member of Chevron's Somos Latin American and Hispanic Employee Network Group. He earned his bachelor's degree in geology at Louisiana State University, which he attended on a basketball scholarship, and a master's degree in business administration from the Sloan School of Management at the Massachusetts Institute of Technology.

· ♦ ♦ PEDRO PIZARRO

Executive Vice President Power Operations Southern California Edison

His Work Keeps Him On The Move

Southern California Edison (SCE) serves more than 14 million people in 180 cities over 50,000-square miles of coastal, central, and southern California. That means Pedro Pizarro, executive vice president of SCE's Power Operations division, has a lot to think about. The four business units he oversees include



SCE's transmission and distribution system; the section that procures conventional and renewable power contracts; gas-fired and hydroelectric power production facilities; and Edison Carrier Solutions. The latter provides wholesale broadband services to telecommunications carriers. A scientist, with a bachelor's degree in chemistry from Harvard University, and a Ph.D. in chemistry from Caltech, Pizarro started out in consulting. During his time with McKinsey & Company, which he says was "like a mini- M.B.A.," as a senior engagement manager, he advised energy, technology, engineering services, and banking clients. In 1999, Pizarro joined the parent company of SCE, Edison International, and began moving up. By 2004, he was senior vice president of Power Procurement, and in 2008 assumed his current post. Like many techs, Pizarro's curiosity and technical interests are part of his down time. The avid runner gets to use his favorite tech gadget—a GPS for runners—while logging his 20 miles per week. He is also a supporter of the House Ear Institute, a nonprofit that advances hearing science through research and education, and the Colburn School of Performing Arts, because Pizarro's dream job is to be an opera singer.



•♦♦ DAVID HERNANDEZ (shown left)

Chief Executive Officer

◆◆ ALBERTO DAIRE (shown right)

President and Chief Operating Officer Liberty Power Corporation

An Electric Duo

Liberty Power Corp., which is based in Fort Lauderdale, Florida, is recognized by *Inc.* magazine as "the only national, minority-owned energy provider." In 2001, a pair of

businessmen, and Cuban immigrants, founded the low-cost retail electricity supplier. Since then, David Hernandez, chief executive officer, and Alberto Daire, president and chief operating officer, have expanded a company that caters to business and government. Its tens of thousands of customers include government agencies and numerous Fortune 500 companies. The 8(a) firm gained federal certification to market electricity nationally in 2002, and is licensed to provide electricity in at least 15 of the 21 deregulated markets. Hernandez has a business degree from New York University. Daire earned a Bachelor of Science degree in industrial engineering at the University of Miami, and an M.B.A. from the University of North Carolina at Chapel Hill. This year the two men were finalists for Ernst & Young Entrepreneur of the Year 2010 Award in the distribution, manufacturing and defense category. In 2009, Frito-Lay, a division of PepsiCo, selected Liberty as its Supplier of the Year in Energy for its ability to lower energy costs and reduce the related risk of purchasing energy. Inc., the magazine for entrepreneurs, says that Liberty Power "offers portfolio strategies to manage risk, meet financial objectives, balance environmental goals, and address other needs of business and government customers." As a privately-held firm, Liberty Power does not release its income, but Inc. magazine reports that Liberty's 2008 revenues were \$302 million.

She's Got the Power

Liliana Gonzalez gets a lot of recognition. She was ranked among Hispanic Business magazine's "100 Most Influential Hispanics," been profiled by Latina Style and has appeared on the Hispanic Engineer & Information Technology "Most Important Hispanics in Technology" list. But none of that is a surprise. Gonzalez is the general manager of gas technical operations at the more than 180-year-old Consolidated Edison of New York Corporation. ConEd, as New Yorkers know it, is a subsidiary of Consolidated Edison, Inc., a \$13 billion revenue company that has assets worth \$34 billion. The 150- person team that Gonzalez leads has serious responsibilities. It manages Con Edison's Liquefied Natural Gas Plant, carries out leak reviews of the gas transmission and distribution system, prevents the corrosion of metal surfaces in ConEd's gas/electric systems, directs the company's vast underground tunnel system and supervises the gas meter shop. Gonzalez has a B.E. degree in electrical engineering from Pratt Institute, and an M.S. degree in electrical engineering from Polytechnic University, where she has been a member of the Department of Mechanical & Aerospace Engineering industry advisory board. Her interest in assisting students to embrace their dreams is long-standing. Several years ago, she was on a panel discussing women in engineering at The Cooper Union for the Advancement of Science and Art. Gonzalez told the group that she ignored her high school guidance counselor's advice completely. Why? Because when Gonzalez said that she wanted to become an engineer, the counselor suggested that she be a typist instead.

•♦♦ LILIANA GONZALEZ

General Manager Gas Technical Operations ConEd





•♦♦ WILTON CEDEÑO

Director, Energy Policy and Regulatory **Affairs**

A Steady Climber at ConEd

As the director of Energy Policy and Regulatory Affairs, Wilton Cedeño has a broad portfolio. His responsibilities include working on state regulatory

affairs, as well as developing and implementing internal and external communication strategies and advocacy-relatedto-state energy policy, which includes developing company positions on state energy policy issues.

That's a mouthful. But Cedeño, whose previous post was the director of ConEd's information systems, can handle it. In that job, he had to make sure that employees had the right information to run effectively a utility that "provides electric, gas and steam service to more than 3 million customers in New York City and Westchester County, New York." Cedeño graduated from Brooklyn Technical High School, picked up a Bachelor of Electrical Engineering from Columbia University, and earned a certificate in energy management from New York Institute of Technology. Since joining ConEd, Cedeño has been climbing the corporate ladder steadily. His first job with the company was as a management intern. Since then he has served as a general manager for Staten Island electric operations, plant manager of a ConEd generating station, and a senior transmission- and distribution-system operator. In his off-hours, Cedeño is involved in community service. He has been a member of his high school's alumni foundation, is a former national chairman of the American Association of Blacks in Energy and the former president of the group's New York Metro chapter. In 2007, he received a Defining Trends in Latino Culture Trendsetter Award.



CARLOS D. TORRES

Vice President **Emergency Management** ConEd

An Experienced **Executive is Ready Anything**

Not many people work their way up from an intern position to senior management, but that is exactly what Carlos Torres did. He has been on ConEd's

up escalator since joining the utility in 1985. He has held many posts. These include general manager of Construction Services, director of Electric Operations Emergency Management, project manager in Emergency Management, section manager in Bronx-Westchester Electric Operations – Overhead, and section manager of Manhattan Electric Operations - Underground, and manager of Steam Construction. Now he oversees ConEd's commitment to instituting emergency management principles in all its operations. This includes maintaining outreach and cooperation between the company and federal, state, and local agencies and organizations that ConEd collaborates with during emergency events. Torres is a member of the Edison Electric Institute and was committee chairperson of the International District Heating Association. Mr. Torres is a member of the Contingency Planning Exchange, and he serves on the board of directors for the American Red Cross of Greater New York. He earned a B.S. in mechanical engineering and an M.S. in engineering management from the New Jersey Institute of Technology.



•♦♦ JORGE J. LOPEZ

President and CEO ConEdison Solutions



Green Power

ConEdison Solutions, the energy subsidiary of Consolidated Edison, Inc., is dedicated to finding inventive ways "to navigate the new competitive energy landscape." Jorge J. Lopez, who has been the group's president and chief executive officer since 2006, is at the helm in this journey. The company has customers in Maryland, Washington, D.C., New York, Delaware, New Jersey, Massachusetts and Texas, and businesses throughout the Northeast and mid-Atlantic that purchase its services. Lopez has been in the energy services field for more than 20 years. At Chevron Energy Solutions, he was director of sales, power quality/reliability and distributed generation. Before that he was a manager for PSE&G. In 2002, Lopez joined ConEdison Solutions. As senior vice president of Retail Commodity and Energy Services, he developed and led those divisions, and prior to that served as vice president of sales. One example of Lopez's innovation is how ConEdison Solutions buys renewable energy credits generated by wind farms and uses them to offset traditional purchases. For example, he says that ConEdison can show that the energy usage of New York City's large West Side sports complex, Chelsea Piers, will be offset by an equal amount of pollutionfree renewable wind energy that will be added to the energy grid. Last year, Lopez told Marketwire that, "Connecticut households and businesses are now able to reduce their carbon footprint and reduce their electricity bills at the same time." Lopez holds a bachelor's degree in mechanical engineering from the Georgia Institute of Technology.

•♦♦ DAVID VELAZQUEZ

Executive Vice President Pepco Holdings, Inc.

Supplying Power to the Mid-Atlantic

David Velazquez is an executive vice president of PHI, or Pepco Holdings, Inc. The regulated utility serves about 1.9 million residential and commercial electricity and natural gas customers in Delaware, the District of Columbia, Maryland and New Jersey. Its subsidiary, Pepco, serves 778,000 customers in Washington, D.C. and its Maryland suburbs. PHI's Delmarva Power and Atlantic



City Electric subsidiaries manage regulated electricity service, while Delmarva also provides natural gas to cumulatively more than one million customers. Another subsidiary, Pepco Energy Service, provides competitive retail energy products and services. Velazquez oversees PHI's power delivery business. That means he manages the transmission, distribution and default supply of electricity, and the distribution and supply of natural gas by the three PHI regulated subsidiaries. In 1981, Velazquez joined Delmarva Power and rose through engineering, operations, and planning posts. Before his current post, he was president and chief executive officer of Conectiv Energy, PHI's former competitive merchant energy subsidiary. He has also been a PHI vice president of strategic planning and a chief risk officer, as well as a vice president of business planning for Conectiv Energy. He has a Bachelor of Science in engineering at Widener University. Velazquez is a member of the board of directors of the Maryland Business Roundtable for Education, and the Southeastern Electric Exchange. It is a nonprofit, non-political trade association of investor-owned electric utility companies.



◆◆◆ EDWARD A. SALAS

Senior Vice President Engineering and Operations PG&E

Keep the Power Flowing

For more than 150 years, one iteration or another of what became PG&E Corporation, also known as Pacific Gas & Electric, has provided power and light to millions. Edward A. Salas became senior vice president, engineering and operations, in 2007. He oversees gas and electric planning, engineering and operations, and transmission and distribution asset management. Salas has spearheaded changes that have improved the way the utility

manages its energy delivery system. One of his first actions at PG&E was to create an integrated gas-engineering group dedicated to improving the integrity of the gas transmission and distribution system. Before assuming his current position, Salas was vice president of network strategy and planning for Verizon Wireless. Prior to that he served as vice president of network engineering and planning for Vodafone AirTouch. He was also vice president, German operations and chief technical officer of Mannesmann Mobilfunk when it was purchased by Vodafone. He has a bachelor's degree from California State University at Los Angeles. Pacific Gas & Electric, a Fortune 200 energy-based holding company, has more than 15 million customers in its northern and central California 70,000 square-mile service area.

GEISHA WILLIAMS

Senior Vice President, Energy Delivery Pacific Gas And Electric Company



Do It Right, Do It Safely

Geisha Williams is all about safety, for her more than 7,000 employees, and in the reliable delivery of gas and electricity to more than 15 million Californians. Her broad responsibilities include the maintenance, construction and restoration of PG&E's gas and electric transmission and distribution systems. Since joining PG&E in 2007, she has made dramatic progress in the areas of employee safety, gas and electric reliability, environmental leadership, and effective project execution her hallmark. Under her guidance, in the last 30 months Energy Delivery has reduced its OSHA recordable incidents rate by over 60 percent. Williams' organization was also an integral part of PG&E's reduction of electric outage frequency to its lowest level in 22 years. Prior to joining PG&E, Williams spent nearly 25 years working for Florida Power and Light. She has a bachelor's degree in industrial engineering from the University of Miami and an M.B.A. from Nova Southeastern University. Williams is also a graduate of Leadership Florida, a member of the Association of Edison Illuminating Companies and on the board of directors of the American Red Cross Bay Area Chapter.

•♦♦ LIVIA WHISENHUNT

Founder CFO PS Energy Group, Inc.

She Blazes New Trails

Livia Whisenhunt is a pioneer. In 1985, she founded PS Energy Group, Inc., in Atlanta, as a wholesale marketer of bulk transportation fuels such as gasoline and diesel fuel. A year later, she began selling natural gas to businesses and the government. By 1989, Whisenhunt added retail sales to the mix, and became one of Georgia's first certified marketers of deregulated natural



gas. As the nation's fourth largest Hispanic-owned company, PS Energy provides transportation fuels, emergency fueling, and fleet management services, including etracTM, a telematics solution that helps improve productivity, profitability, and the quality of the environment through better asset monitoring and vehicle tracking. Loomis, an international cash-handling company with more than 3,000 vehicles, is one of many customers that monitor their fleets through PS Energy's etrac™. Such expertise gets one noticed. In recent years, Whisenhunt has served on a variety of state and federal committees and boards that have studied subjects including the deregulation of natural gas distribution, and the enforcement activities of federal regulatory agencies as they impact small business. Consequently, she has received many honors. These include recognition as the Metro Atlanta Chamber of Commerce Small Business Person of the Year, being dubbed the Southeast Wholesale Entrepneur of the Year by Ernst & Young, and winning five consecutive Administrator's Awards for Excellence from the United States Small Business Administration.



◆◆ JAVIER LOYA Chairman, CEO and Co-founder,

OTC Global Holdings

Scoring Big in Energy

OTC Global Holdings is an independent inter-dealer broker in over-the-counter energy commodities—in other words, a middleman facilitating energy deals. In 2007, Javier Loya co-founded the Houston and New York co-headquartered firm. It has 18 energy-related companies in its portfolio. Pooling the resources of many companies allows them to share the risks and leverage their cash. BusinessWeek says OTC Global Holdings "offers various options, swaps, derivatives, and index-related products for natural gas delivery points and power products," provides liquidity to the New York Mercantile Exchange, and energy services to energy traders and commodity markets. Loya, who has a Bachelor of Science degree in political science from Columbia University, co-founded his first firm in the sector, Choice Energy Group, in 1994. It was one of the early institutional natural gas brokers after deregulation. Prior to that, Loya was a natural gas options broker with First National Crude Oil managing accounts with oil companies, natural gas producers, electrical utilities, institutional banks and energy marketers. The El Paso, Texas native has deep roots in community service. Among other groups, he is a member of The Houston Hispanic Chamber of Commerce, the Houston Minority Business Council, and the Young Entrepreneurs Organization. He is a supporter of The National Multiple Sclerosis Society, AIDS Foundation Houston, American Cancer Society, Oasis Haven for Women and Children, and the March of Dimes. Loya, an avid fan, and former football player at Columbia, is also a minority owner of the NFL Houston Texans.



•♦♦ FRANK RAMIREZ

CEO Ice Energy



Go Smart, Save Money

Frank Ramirez has a hot niche in a cool sector. He is the CEO of Ice Energy. The Windsor, Colorado company creates distributed energy storage and smart grid solutions for optimizing energy system efficiency. In English, that means Ice Energy provides utilities with cheaper power from thousands of diverse locations and sends to the utilities when demand peaks. Prior to Ice Energy, Ramirez honed his innovative skills. First, he founded and directed Structured Capital Management, a boutique investment bank that specialized in complex asset securitizations. Later, he started and ran a start-up—funded by Calpine Energy—that "developed inside-the-fence energy solutions for mission critical facilities." He was also a principal of investment bank Alex Brown and Sons, and an ex-managing director of Bear, Stearns and Co. His first job was with the U.S. Securities and Exchange Commission, as a staff attorney. Ramirez earned a B.A. in economics from Stanford University, a J.D. degree from Boalt Hall School of Law, University of California, Berkeley, and an M.B.A. from Stanford University. Off the clock, he has a host of community interests. These include serving as vice president of Scoutreach for the Western Region Board of the Boy Scouts of America. He has also been a member of the board of The Children's Hospital of Colorado, a trustee of the Stanford **University Graduate School of Business** Trust, a member of the Advisory Board of the Stanford Center for Chicano Research, and at a trustee of the Colorado Outward Bound School.

*****♦♦ SECRETARY KENNETH L. SALAZAR

Secretary
Department of the Interior

Energy Issues Attract His Attention

Kenneth L. Salazar, secretary of the Department of the Interior, is at the helm during America's most destructive man-made ecological disaster. And everyday since the BP Deepwater Horizon collapse, the department's website has led with a response story. In late July, nearly every Interior agency's home page also posted energy-related news. The Bureau



of Indian Affairs linked to a story about a tribal energy transmission system-planning workshop in Bismarck, North Dakota. The Land Management Bureau published its Renewable Energy Resources fact sheet. The Bureau of Ocean Energy Management, Regulation, and Enforcement home page pulsed with energy pieces. These included an update on the spread and impact of oil, a link to Secretary Salazar's testimony about offshore energy reforms, and a discussion about deepwater drilling safety issues. The Bureau of Reclamation provided information on the energy-producing dams, power plants, and projects. The Office of Surface Mining linked to regulating coalmines, and the U.S. Geological Survey showcased the critical role the U.S. Coast Guard plays in coordinated response to the Gulf oil spill. Secretary Salazar is wellsuited to preside over the Department of the Interior. The former Colorado senator served on the Senate Agriculture, and Energy and Natural Resources Committees. His bio also states that while a U.S. senator, Salazar worked on creating a renewableenergy economy less dependent on foreign oil. "He was involved in every major bipartisan legislative effort on energy since 2005, including helping craft the Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007."



•♦♦ HILDA SOLIS

Secretary U.S. Department of Labor

A History of Green and Energy Initiatives

Earlier this year, Secretary of Labor Hilda L. Solis announced that \$150 million of the half-billion American Recovery and Reinvestment Act of 2009 would be used to promote careers in energy efficiency. The "Pathways out of Poverty" grant is tied to green jobs and training people to build wind turbines and install solar panels. It is part of a Labor Depart-

ment initiative to bring the poor, high school dropouts, and ex-criminal offenders into the work force. Prior to confirmation as secretary, Solis represented California's 32nd Congressional District, and was a vocal advocate for clean energy jobs. She authored the Green Jobs Act, which provided funding for job training for veterans, displaced workers, at-risk youth, and individuals in families. Her related interest in the environment was recognized in 2000, when she was awarded the John F. Kennedy Profile in Courage Award for her work on environmental justice issues. The year before, her California environmental justice legislation was the first of its kind in the nation to become law. From 1992 to 1994, she was a member of the California State Assembly. That year she was elected as the first Latina in the California State Senate. She is a graduate of California State Polytechnic University, Pomona, and has a master's degree in public administration from the University of Southern California. During the Carter administration, she worked in the White House Office of Hispanic Affairs and later as a management analyst with the Office of Management and Budget in the Civil Rights Division.



•♦♦ NANCY SUTLEY

Chair

White House Council on Environmental Quality

A Keen Interest in Energy

The main environmental policy advisor to the president, Nancy Sutley, has a dynamic background and has been working on energy-related issues for more than a decade. Before her appointment, Sutley was the deputy mayor for energy and environment for the city of Los Angeles. During her tenure, she helped write the city's solar energy plan that proposes Los Angeles receive 10 percent of its energy from the sun by 2020. She was also instrumental in Los Angeles' adoption of the first mandatory green-building standards of a major American city. The City Hall job was a post Sutley had risen to after serving on the board of directors for the Metropolitan Water District of Southern California and the California State Water Resources Control Board from 2003- 2005. Previously, the Cornell University graduate with a master's degree in public policy from Harvard University advised former California Governor Gray Davis on energy issues, and focused on the management of state and federal regulations, legislative affairs, finances and press relations. Sutley, who was born in Argentina, was also a deputy secretary for policy and intergovernmental relations in the California EP, and during the Clinton administration served as an EPA senior policy advisor to a regional administrator and special assistant to the administrator in Washington, D.C. On July 21, 2010, she addressed 120 leaders in the commercial building industry about the role of Federal leadership at a White House Clean Energy Economy Forum.



·♦♦ INÉS R. TRIAY

Assistant Secretary for Environmental Management Office of Environmental Management Department of Energy



Keeping Us Safe From Nuclear Waste

Inés R. Triay's career has been spent carrying out an assignment that most people would be terrified to do. She heads the government agency responsible for the cleanup of radioactive waste and facilities that housed Cold War nuclear weapon production and research activities. The job has an annual budget of more than \$5.5 billion, employs more 30,000 federal and contractor employees, deals with "enough radioactive waste to completely fill the Louisiana Superdome," and initially included 107 sites spread over 2 million acres in 35 states. Before her current post, Triay spent years learning about nuclear cleanup at sites across the country serving as principal deputy assistant secretary, chief operations officer, and deputy chief operations officer. She was a manager at the Department of Energy's Carlsbad, New Mexico field office, and at the Los Alamos National Laboratory. She also thinks that with proper collaboration between business, state, and local government agencies that contaminated facilities could be converted "into spaces for renewable energy that would promote economic interests." A hallmark of working with the deadliest substances on earth is Triay's commitment to safety. It "must remain our top priority: No schedule, milestone, or cost consideration is worth any injury to our workers or any adverse effect to the public or the environment," she says. Triay, who was born in Cuba on the eve of the communist revolution, earned her bachelor's degree in chemistry, magna cum laude, and her doctorate degree in physical chemistry from the University of Miami in Florida.

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•♦♦ MONICA C. REGALBUTO

Head, Process Chemistry and Engineering Department, Chemical Sciences and Engineering Division
Argonne National Laboratory

A Reseacher With Diverse Interests

Throughout her professional career, Monica C. Regalbuto has contributed in many ways to the development of innovative energy technologies. As the head of the Process Chemistry and Engineering Department, she has a budget of \$9 million and manages a group of 30 researchers. Regalbuto is also an affiliated researcher with the Massachusetts Institute of Technology, where she is part of the Fuel Cycle Study Team. She also has an Intergovernmental Personnel Act position with the Department of Energy Office of Environmental Management. Its mission is to reduce the technical risk and uncertainty in DOE's clean-up programs and projects. She has authored multiple publications and holds six patents. At Argonne National Laboratory, she has made key contributions to nuclear technologies, and worked with a multi-discipline team to develop a computer model used by researchers to optimize processes to recycle spent nuclear fuel. Earlier in her career, at Amoco Oil Company, she was part of a team that developed and evaluated alternative technologies to lower sulfur (the precursor to acid rain) levels in gasoline. Her peers have also recognized Regalbuto's expertise. In past years, she has received the Hispanic Engineer National Achievement Award, the HENAAC Professional Achievement Award, and the American Nuclear Society Jane Oestmann Professional Women's Achievement



Award. Additionally, HispanicBusiness.com celebrated her as one of its 25 Outstanding Hispanic Women in Business. Regalbuto also believes in community service, and is a member of an Illinois high school district that has annual \$100M budget, and 4,600 students. Regalbuto earned her Bachelor of Science degree from the *Instituto Tecnológico y de Estudios Superiores de Monterrey*, and M.S. and Ph.D. from the University of Notre Dame



•♦♦ DAN E. ARVIZU

Director and Chief Executive National Renewable Energy Laboratory

Thinking About Energy Differently

This October, Dan Arvizu will be honored as the National Hispanic Scientist of the Year, by MOSI, http://www.mosi.org/, a 52-year-old nonprofit "dedicated to advancing public

interest, knowledge and understanding of science, industry and technology." It won't be Arvizu's first or last accolade. Beyond being a stellar leader, Arvizu sits in science's sweet spot. As fossil fuel disasters occur and energy prices rise, more Americans consider alternative forms of energy. The National Renewable Energy Laboratory, which he directs, is "the Department of Energy's principal laboratory for energy efficiency and renewable energy research and development." In a June 2010 address to the Economic Club of Kansas City, Arvizu said the nation already produces more renewable energy via wind, solar, geothermal, biomass, and hydroelectric power than what comes from the 683 million barrels of offshore oil. Renewable technologies and resources are already here. The big problem is replacing the oil we need for transportation. To change that, he says, energy must be seen as a high-tech, high-growth industry that drives the economy not as a "least-cost commodity, without regard to economic, environmental, and security impacts." But during the transition to "new and

next generation energy technologies" all the old forms must be used, in their least harmful fashion. He adds that fuel efficiency and fuel switching—think hybrids—will help reduce America's petroleum addiction. Arvizu earned a Bachelor of Science degree in mechanical engineering from New Mexico State University and a Master of Science degree and a Ph.D. in mechanical engineering from Stanford University.



◆◆ JUAN J. TORRES

Manager, Energy Systems, Analysis Department Sandia National Laboratories



Keeping Power Transmission Constant

The cutting edge of renewable energy research may be in the Energy Systems Analysis Department at Sandia National Laboratories run by Juan Torres. The lab uses two-way digital, or smart grid technology, to improve management and control of energy transmission and distribution power grids, and to enhance grid integration of renewable energy resources. Torres has worked at Sandia for 20 years in a variety of areas. These include time spent with the DOE Critical Infrastructure Protection Task Force that helped develop White House strategy to protect the national energy infrastructure, and the DOE infrastructure team trying to protect the U.S. energy infrastructure from cyber attack. In February 2010, Torres spoke on a Milken Institute Financial Innovations for Energy Infrastructure panel. The topic: The Grid, Renewables and Beyond. He said, "That increased energy storage is the key to better system wide asset utilization, enhanced reliability, and reduced emissions." But getting there is hard and expensive. The grid must transmit alternating currency from a power plant to a consumer at a consistent frequency, and be able to increase the energy load if there is a loss elsewhere in the system. To do that, says Torres, requires more than making a grid smart by adding telecommunication and computing power. Torres received his Bachelor of Science degree in electronics engineering technology from the University of Southern Colorado, a Master of Science degree in electrical engineering from the University of New Mexico, and has completed graduate work in electrical engineering and management science at Stanford University.

◆◆ JOSE ZAYAS

Manager, Wind and Water Power Technologies Department Sandia National Laboratories

Harnessing Wind and Water Power

As program manager of the Wind and Water Power Technologies Department, Jose Zayas must establish strategy and priorities, define technical and programmatic positions, monitor business development, and make sure the lab's wind and water power related activities run efficiently. He joined Sandia in 1996 and for the first decade of his career was a senior member of the technical staff. He has also performed research in the areas of active aerodynamic flow control, sensors, dynamic modeling, data acquisition systems, and component testing. Turning a government decree into reality, Zayas has assisted Kirtland Air Force Base as it shares a wind farm with Sandia to create an energy source that can satisfy one-third of the energy demand of both entities. Last year, the Wind and Water Power division also was informed that it will receive \$9 million from the Department of Energy, over three years, to develop advanced water power technologies. A multi-discipline team, including materials and manufacturing research, environmental monitoring and stewardship, performance modeling, and testing will be involved. Zayas says that, "Water power technologies contribute to the diversification of our nation's energy mix by providing clean energy in areas near high population centers as well as enhancing



our nation's energy security. Water power technologies could leverage an indigenous resource in parts of the country where other technologies may not be viable." Zayas has a bachelor's degree in mechanical engineering from the University of New Mexico, and a master's degree in mechanical and aeronautical engineering from the University of California.



BEST







EMPLOYERS FOR HISPANICS IN ENERGY









BP Corporation

501 Westlake Park Boulevard Houston,TX 77079 http://www.bp.com Revenue: \$246.1 billion USD (FY 2009)

Chevron Corporation

6001 Bollinger Canyon Road

San Ramon, CA 94583 http://www.chevron.com/

Revenue: \$ 273.005 billion USD (FY 2008)

Allegheny Energy, Inc.

Revenue: \$3.43 billion USD (FY 2009)

Revenue: \$6.08 billion USD (FY2008)

http://www.alabamapower.com/

600 North 18th Street

Birmingham, AL 35291

Alabama Power Company

800 Cabin Hill Drive Greensburg, PA 15601 http://www.alleghenyenergy.com/AEHome.asp

Carolina Power and Light

(Merged with Florida Progress Corporation in 2000 to become Progress Energy Inc.). Progess Energy, Inc. 410 S. Wilmington Street, PEB 19A3 Raleigh, N.C. 27601 http://progress-energy.com/ Revenue: \$10 billion USD

Amerada Hess Corporation

1185 Avenue of the Americas, 40th Floor New York, N.Y. 10036 http://www.hess.com/default.aspx Revenue: \$29,569.00 USD

American Electric Power Company, Inc.

1 Riverside Plaza Columbus, OH 43215 http://www.aep.com/ Revenue: USD \$14.4 billion (FY 2008)

Arctic Slope Regional Corporation

3900 C Street , Suite 801 Anchorage, AK 99503 http://www.asrc.com/home/home.asp Revenue: \$1.94 billion USD (FY 2009)

Baker Hughes Incorporated

Global Headquarters 2929 Allen Parkway, Suite 2100 Houston, TX 77019 http://www.bakerhughes.com/ Revenue: \$11.864 billion USD (FY 2008)

Baldor Electric Motor Company

R/S Electric Motors - Sales & Service 1422 South 6th Street St. Joseph, MO 64501 http://www.baldor.com/products/ac motors.asp

Coastal

(Was acquired by El Paso Corporation in 2001). El Paso Corporation headquarters: 1001 Louisiana Street Houston, TX 77002 http://www.elpaso.com/contacts/

Diamond Offshore Drilling, Inc.

15415 Katy Freeway, Suite 100 Houston, TX 77094 http://www.diamondoffshore.com/ Revenue: \$3.54 billion USD (FY 2008)

Dominion Virginia Power

The Riverside Campus 120 Tredegar Street Richmond, VA 23219 http://www.dom.com/dominion-virginia-power/ index.jsp Revenue: \$16,290,000 USD

Duke Energy Corporation

526 South Church Street Charlotte, N.C. 28202 http://www.duke-energy.com/company.asp Revenue: \$12.74 billion USD (as of March 2010)

Duke Energy Field Services Corporation

(Changed name to DCP Midstream in 2007) DCP Midstream, LLC 370 17th Street, Suite 2500 Denver, CO 80202 https://www.dcpmidstream.com/Pages/ Home.aspx

Duracell

(Procter and Gamble brand) Berkshire Corporate Park Bethel, CT 06801 http://www.duracell.com/en-US/company/ index.jsp

Edison Electric Institute

701 Pennsylvania Avenue, N.W. Washington, D.C. 20004 www.eei.org

Emerson Electric Company

8000 West Florissant Avenue, P.O. Box 4100 St. Louis, MO 63136 http://www.emerson.com/en-US/Pages/Default. aspx

Revenue: \$ 24.807 billion USD (2008)

ExxonMobil Corporation

5959 Las Colinas Boulevard Irving, TX 75039 http://www.corp.exxonmobil.com/corporate/ Revenue: \$310.58 billion USD (FY 2009)

Florida Power & Light Company

(Principal subsidiary of NextEra Energy). FPL General Mail Facility Miami, FL 33188 http://www.fpl.com/contact

Foster Wheeler

Global Power Group Perryville Corporate Park Clinton, N.J. 08809 http://www.fwc.com/

Franklin Electric Co. Inc.

10 Twosome Drive Moorestown, N.J. 08057 http://www.franklinelectriccompany.com/index. php?option=com_frontpage&Itemid=1

Frontier Oil Corporation

10000 Memorial Drive, Suite 600 Houston, TX 77024 http://www.frontieroil.com/

GPU Nuclear Corporation

(In 2001, FirstEnergy Corporation merged with GPU, Inc.). 76 South Main Street Akron, OH 44308 www.firstenergycorp.com Revenue: \$11.5 billion USD (FY 2006)

Hunt Conslidated Inc.

Hunt Oil Company 1900 North Akard Street Dallas, TX 75201 http://www.huntoil.com/



Idaho National Laboratory

1765 North Yellowstone Hwy Idaho Falls, ID 83415 https://inlportal.inl.gov/portal/server. pt?open=512&objID=255&mode=2

Keyspan Energy

(As of May 1, 2008, KeySpan Energy Delivery changed its name to National Grid). http://www2.nationalgridus.com/corpinfo/careers/index all.jsp

Kentucky Utilities Company

(KU is a wholly-owned subsidiary of E.ON U.S. LLC, a diversified energy services company that is a member of the E.ON AG family of companies. E.ON is the world's largest investor-owned utility company).

1 Quality Street Lexington, KY 40507

http://www.eon-us.com/ku/default.asp

Louisville Gas and Electric Company

(LG&E is a wholly-owned subsidiary of E.ON U.S. LLC that serves customers in Louisville, KY, and 16 surrounding counties).

http://www.eon-us.com/careers/default.asp

Kinder Moran Energy Partners, L.P.

(Owned by Kinder Morgan). Kinder Morgan 500 Dallas Street, Suite 1000 Houston, TX 77002 http://www.kne.com

Mirant

(On Sunday, April 11, 2010, Mirant announced it was merging with RRI Energy, a company formerly known as Reliant Energy. The merged company will be known as GenOn Energy). 1155 Perimeter Center West Atlanta, GA 30338

http://www.mirant.com/Pages/default.aspx Revenue: \$1,864,000,000 USD

Noble Drilling Corporation

(Now known as Noble Corporation). 13135 South Dairy Ashford Road, Suite 800 Sugar Land, TX 77478 http://www.noblecorp.com/default.asp Revenue \$3.6 billion (FY 2009)

Noble Energy Inc.

100 Glenborough Drive, Suite 100 Houston, TX 77067 http://www.nobleenergyinc.com/fw/main/ Home-4.html

Revenue: \$3.272 billion USD (FY 2007)

Nuclear Energy Institute

1776 I Street NW, Suite 400 Washington, D.C. 20006 http://www.nei.org/

Occidental Petroleum Corporation

10889 Wilshire Boulevard Los Angeles, CA 90024

http://www.oxy.com/Pages/default.aspx Revenue: \$20.21 billion USD (FY 2008)

Oceaneering International, Inc.

11911 FM 529 Houston, TX 77041 http://www.oceaneering.com/

Pacific Gas & Electric Company

(A subsidiary of PG&E Corporation). One Market, Spear Tower, Suite 2400 San Francisco, CA 94105 http://www.pge.com/

Revenue: \$14.628 billion USD (FY 2008)

Patterson Energy, Inc.

450 Gears Road, Suite 500 Houston, TX 77067 http://patenergy.com/

Revenue: \$38.3 million USD (FY 2009)

Pennzoil-Quaker State Company

(In 2002, the Royal Dutch/Shell Group purchased Pennzoil-Quaker State to form Shell Oil Products U.S.).

910 Louisiana Street Houston, TX 77210 http://www.shell.us/

Revenue: \$ 278.188 billion USD (FY 2009)

Portland General Electric (PGE) Company

121 SW Salmon Street Portland, OR 97204

http://www.portlandgeneral.com/default.aspx Revenue: \$1.8 billion USD (FY 2009)

Schlumberger Limited

5599 San Felipe, 17th Floor Houston, TX 77056 http://www.slb.com/

Revenue: \$22.70 billion USD (FY 2009)

Southern California Edison Company

(Headquartered in Rosemead, California, Edison International (EIX) is the parent company of Southern California Edison—a regulated electric utility—and Edison Mission Group, a power generation business).

http://www.edison.com/default.asp Revenue: (for EIX) \$12.4 billion USD (FY 2009)

SunPower Corporation

3939 N. 1st Street San Jose, CA 95134 http://us.sunpowercorp.com/utility/ Revenue: \$774,790,000 USD (FY 2007)

Tennessee Valley Authority

400 West Summit Hill Drive Knoxville, TN 37902 http://www.tva.gov/

Revenue: \$11.26 billion USD (FY 2009)

Tetra Tech

3475 Fast Foothill Boulevard Pasadena, CA 91107

http://www.tetratech.com/tetratech/ Revenue: over \$1.55 billion USD (FY 2007)

Transocean Sedco Forex Inc.

P.O. Box 2765 Houston, TX 77252

http://www.deepwater.com/fw/main/Our-Company-2.html

The Trigen Companies

(Branches located in Atlanta, Baltimore, Philadelphia, St.Louis, Los Angeles, Las Vegas, Boston, Kansas City, Trenton, Tulsa, and Oklahoma City).

http://www.veoliaenergyna.com/veolia-energynorth-america

Ultramar Diamond Shamrock

(On December 31, 2001, Valero completed its acquisition of Ultramar Diamond Shamrock). http://www.valero.com/default.aspx Revenue: \$119.114 billion USD (FY 2008)

Weatherford International Ltd.

515 Post Oak Boulevard, Suite 600 Houston, TX 77027

http://www.weatherford.com/Default Revenue: \$7.8 billion USD (FY 2007)

Through their commitment to diversity and their zest for innovation, these companies have proven themselves to be the top choices for the brightest minds in STEM.