

Stig L. Nilsson, P.E.
Principal Engineer

Professional Profile

Mr. Stig Nilsson has more than 40 years experience as an electrical engineer involved with a wide variety of electrical engineering and management disciplines. At Exponent, Mr. Nilsson has consulted on design, construction, operation and maintenance of electrical facilities, accidents involving electric equipment, consumer electronics products including CPSC recall cases, electric battery failures, due diligence related to investments in new technologies and mergers and acquisitions, software issues, power supplies for consumer products as well as power electronic systems for industrial and electric utility applications, large and small transformers, cables, and breakers. Mr. Nilsson has investigated failures in underground cable vaults, complex faults involving electric utility transmission and distribution systems and electric equipment performance issues both nationally and internationally.

Prior to joining Exponent, Mr. Nilsson has expertise in software engineering, communication systems, supervisory control, and digital protective relaying systems, as well as off-line and on-line equipment monitoring systems. He also has experience in the design, installation, testing, operation, and maintenance of AC and high-voltage DC stations, as well as with equipment and auxiliary systems used in these facilities. Mr. Nilsson has analyzed numerous equipment failures and power system disturbances, including assessing damages and developing restoration strategies after earthquakes and other similar disasters. He was engaged as an expert auditor to assess the utility industry's readiness for the transitions into the year 2000. Mr. Nilsson has also consulted to major corporations on strategic business planning and market analysis and has led developments of new power electronic systems used for transmission of power and converters for power quality, distributed generation, or electric drives applications. Mr. Nilsson has served as Executive Vice President of Silicon Power Corporation, Corporate Vice President for Energy Management & Research, Inc., Executive Engineer at EPRI, Program Manager at Boeing Computer Services, Control System and Project Engineer at ABB, and Maintenance Engineer at the Swedish State Telephone Board. Mr. Nilsson served in the military in Sweden as a communications technician.

Academic Credentials and Professional Honors

MBA, Santa Clara University, 1985
EE, HTL, Malmö, Sweden, 1960

Institute of Electrical and Electronic Engineers (Life Fellow); U.S. National Committee—International Council on large Electrical Systems (CIGRÉ): Attwood Associate Award (2003); CIGRE Distinguished Member Award for active participation in CIGRE Study Committees and the U.S. National Committee of CIGRE (2006); Prize paper award IEEE – PES (1986); Prize paper awards, IEEE-PES Substations committee (1985 and 1986)

Licenses and Certifications

Registered Professional Control System Engineer, California, #3793

Languages

Swedish, German

Patents

Patent 4, 999, 565: Apparatus for Controlling the Reactive Impedance of a Transmission Line, issued March 12, 1991.

Patent 5, 506, 511: Method of Electrically Detecting On-Site Partial Discharges in the Insulating Medium of an Electrical Power Transformer and Apparatus Therefore, issued April 9, 1996 (with W.B. Gish).

Publications and Published Abstracts

Hassenzahl WV, Eckroad SEC, Grant PM, Gregory B, Nilsson S. A high-power superconducting DC cable. *IEEE Transactions on Applied Superconductivity* 2009; 19(3), June.

Nie B, Lam S, Karchemskiy F, Taylor E, Nilsson S, Vasilic S. Sensitive relay inputs — Contributing factor to major power outage. 35th Annual Western Protective Relay Conference, Spokane, WA, October 21–23, 2008.

Long WF, Nilsson SL. HVDC transmission: Yesterday and today. *IEEE Power & Energy* 2007; 5(2):22–31.

Loud J, Du Y, Nilsson SL. On the testing methods of simulating a cell internal short circuit for lithium ion batteries. *Proceedings, 17th Annual Battery Conference on Applications and Advances, California State University*, pp. 205–208, Long Beach, CA, January 15–18, 2002.

Nilsson SL. Communication system security issues. *IEEE Computer Applications in Power* 2000; 13(3):10–11.

Nilsson SL. Special application considerations for custom power systems. *Proceedings, IEEE-PES Winter Meeting*, pp. 1127–1131, January 31–February 4, 1999.

Nilsson SL, Lindgren S. Transformer failure data—What it is telling us? *Proceedings, Substation Equipment Diagnostics Conference V, EPRI Report TR-11282*, pp. II-1 to II-9, September 1998.

Savio L, Chu D, Brubaker M, Cook C, Moore H, Nilsson SL. Application of in-service transformer monitoring systems during tests at ConEd's Ramapo Station. Proceedings, Substation Equipment Diagnostics Conference V, EPRI Report TR-11282, pp. II-10 to II-41, September 1998.

Nilsson SL. Electric power transmission. McGraw-Hill Yearbook of Science & Technology pp. 165–167, ISBN 045410-8, 1997.

Udren EA, Zipp JA, Michel GL, Mustaphi KK, Nilsson SL, Phadke AG Ramaswami R, Rockefeller GD, Sachdev MS, Strang WM, Thorp JS, Tziouvaras DA, Varneckas V, Wagner CL. Proposed statistical performance measures for microprocessor based transmission line protective relays. Part 1: Explanation of Statistics. IEEE Trans Power Deliv 1997; 12(1):134–143.

Udren EA, Zipp JA, Michel GL, Mustaphi KK, Nilsson SL, Phadke AG Ramaswami R, Rockefeller GD, Sachdev MS, Strang WM, Thorp JS, Tziouvaras DA, Varneckas V, Wagner CL. Proposed statistical performance measures for microprocessor based transmission line protective relays. Part 2: Collection and uses of data. IEEE Trans Power Deliv 1997; 12(1):144–156.

van Miegroet M, Nilsson SL, et al. Data communication inside the HV substations—Protection and control functions interface. Final Report by CIGRE Working Group 34.03.

Pilotto LAS, Szechtman M, Way A, Long WF, Nilsson SL. Synchronizing and damping torque modulation controllers for multi-infeed HVDC systems. IEEE Trans Power Deliv 1995; 10(3):1505–1513.

Nilsson SL. Security aspects of flexible AC transmission system controller applications. Electrical Power Energy Systems 1995; 17(3):173–179.

Grund CE, Paserba JJ, Hauer JF, Nilsson SL. Comparison of prony and eigenanalysis for power system control design. IEEE Trans Power Syst 1993; 8(3):964–971.

Lau KP, Koenig DF, Udren EA, Allguren BJ, Nilsson SL. Pros and cons of integrating protection and control in transmission substations. pp. 360–377. In: IEEE Trans. Power Apparatus and Systems, Protective Relaying for Power Systems II, IEEE Press, 1992.

Kezunovic M, Kojovic L, Fromen, CW Sevcik DR, Nilsson SL. Digital models of coupling capacitor voltage transformers for protective relay transient studies. IEEE Trans Power Deliv 1992; 7(4):1927–1930.

Larsen EV, Miller NW, Lindgren SR, Nilsson SL. Benefits of GTO-based compensation systems for electric utility applications. IEEE Trans Power Deliv 1992; 7(4):2056–2064.

Nilsson SL. Substation equipment diagnostics. IEEE Power Engineering Review 1990; 10(9).

Krishnayya PSC, Lambeth PJ, Maruvada PS, Trinh NG, Désilets G, Nilsson SL. Technical problems associated with developing HVDC converter stations for voltages above 600 kV. *IEEE Trans Power Deliv* 1987; PWRD-2(1):174–181.

Lau KP, Koenig DF, Udren EA, Allguren BJ, Nilsson SL. Pros and cons of integrating protection and control in transmission substations. *IEEE Trans Power Apparatus Systems* 1985; PAS-104(5):1207–1224 (1986 IEEE Prize Paper Award).

Vithayathil JJ, Courts AL, Peterson WG, Hingorani NG, Porter JW, Nilsson SL. HVDC circuit breaker development and field tests. *IEEE Trans Power Apparatus Systems* 1985; PAS-104(10):2693–2705.

Perkins MD, Mauser SF, Mikell DC, Nilsson SL. Summary of transient data obtained from long-term monitoring of a 138-kV and 500-kV transmission line. *IEEE Trans Power Apparatus Systems* 1984; PAS-103(8):2290–2298.

Russell BD, Harvey SM, Nilsson SL. Substation electromagnetic interference. 1: Characterization and Description of the Transient EMI Problem. *IEEE Trans Power Apparatus Systems* 1984; PAS-103(7):1863–1870 (received the 1985 IEEE-PES Substations Committee Prize paper award).

Berkebile LE, Nilsson S, Sun S. Digital EHV current transducer. *IEEE Transactions on Power Apparatus and Systems*, PAS-100 (4):1498–1504, April 1981.

Nilsson SL. EPRI research and development of new substation control and protection equipment. pp. 88–92. In: *Second International Conference on Developments in Power System Protection*, IEEE Publication #185, June 1980.

Hofferber DD, Nilsson SL. Integrated data acquisition system for HVDC converter stations and large AC substations. *IEEE Trans Power Apparatus Systems* 1980; PAS-99(2):540–548.

Hingorani NG, Nilsson SL. Compacting DC terminals. *EPRI Journal*, December 1976.

Scott DN, Nilsson SL. Power loss detector. *Control Engineering*, December 1973.

Book Chapters

Nilsson SL. Electric power transmission. pp. 165–167. In: *McGraw-Hill Yearbook on Science & Technology*.

Presentations

Swart J, Arora A, Megerle M, Nilsson SL. Methods for measuring the mechanical safety vent pressure of lithium ion cells. *IEEE Product Safety Engineering Society*, Irvine, CA, 2006.

Swart J, Arora A, Nilsson SL. Characterizing the Performance of Battery Chemistries Used to Power a Single-Person Vehicle. Advanced Automotive Battery (and Ultracapacitor) Conference, Chicago, IL, 2006.

Swart J, Arora A, Ross B, Nilsson SL. Case studies of electrical component failures. Failures 2006, South Africa, 2006.

Nilsson SL. HVDC transmission, the flexible AC transmission system, and custom power. Presented at the Symposium on Advancing the Application of Power Electronics to the Electric Power Infrastructure, April 27, 2006.

Nilsson SL. Overview of earthquake-related effects on electric power system. Presented at the IEEE San Francisco Power Engineering Society Organized Disaster Recovery Workshop, March 30, 2006.

Swart J, Arora A, Xu Y, Nilsson SL. Going beyond industry standards in critically evaluating lithium-ion batteries. Advancements in Battery Charging, Monitoring and Testing, Vancouver, Canada, 2005.

Swart J, Arora A, Xu Y, Nilsson SL. Characterizing the vent operation of lithium-ion cells and battery packs. Fifth International Advanced Automotive Battery and Ultracapacitor Conference, Honolulu, HI, June 13–17, 2005.

Swart J, Arora A, Horn Q, Xu Y, Nilsson SL. Lithium-ion batteries for hybrid electric vehicles: A safety perspective. Fifth International Advanced Automotive Battery and Ultracapacitor Conference, Honolulu, HI, June 13–17, 2005.

Nilsson SL. Product failures, CPSC recalls and lithium ion safety—Limit: Electrical failures. Presented at IEEE-PSES Symposium, Santa Clara, CA, August 14, 2004.

Nilsson SL, Hammad A. Technical and economic considerations for applying power electronic equipment in transmission and distribution systems. IEEE-PES 2000 Winter Meeting, Singapore, January 23–27, 2000.

Nilsson SL, Lindgren S, Zahn M. Further analysis of streaming current as recorded from the ramapo transformer. Presented at the EPRI Transformer Reliability: Management of Static Electrification in Power Transformers Symposium, Monterey, CA, May 19–21, 1999.

Nilsson SL, Zahn M, Lindgren S. Ramapo tests: Results from streaming current monitor using a Nilsson plate and an absolute charge sensor. Paper #99TD351. IEEE T&D Conference, New Orleans, April 1999.

Savio LJ, Chu D, Lindgren SR, Moore H, Nilsson SL. Application of in-service transformer monitoring systems during tests at ConEd's Ramapo Station. Paper #12-205. Presented at the 37th Session of CIGRE, Paris, August 1998.

Nilsson SL. Experience and use of FACTS. Invited Paper, EPSOM '98, Zürich, September 23–25, 1998.

Schwartzberg J, Piccone D, Rodrigues R, Nilsson SL. Power electronic systems—Major tool to increase power transfer capability. Presented at EPRI Conference on The Future of Power Delivery in the 21st Century, La Jolla, CA, November 18–20, 1997.

Nilsson SL. A planning perspective for power electronic systems. Presented at the Conference on High Technology in the Power Industry, October 27–30, 1997.

Nilsson SL. A planning perspective for FACTS systems. Presented at a Short Course on Application of Static Compensators and Other FACTS Power Flow Controllers, University of Wisconsin, Madison Extension, May 13–17, 1996.

Nilsson SL. The economics of FACTS—Cost and performance aspects of FACTS systems. Invited paper. CIGRE Brazil CE 38/14 Workshop on FACTS, Rio de Janeiro, Brazil, November 6–9, 1995.

Wiggins C, Nilsson SL. Comparison of interference from switching, lightning and fault events in high voltage substations. Paper presented at the 35th Session of CIGRE, August 1994.

Kojovic LJ, Kezunovic M, Nilsson SL. Computer simulation of a ferroresonance suppression circuit for digital modeling of coupling capacitor voltage transformers. Presented at the IEEE-PES Winter Power Meeting, New York, NY, 1992.

Larsen E, Bowler C, Nilsson SL. Benefits of Thyristor controlled series compensation. Paper presented at the 34th Session of CIGRE, August 1992.

Szechtman M, Pilotto LAS, Way A, Long WF, Alvaredo FL, Nilsson SL. The behavior of several HVdc links terminating in the same load area. Presented at the 34th Session of CIGRE, Paris, August 1992.

Krishnayya PSC, Lambeth PJ, Maruvada PS, Nilsson SL. An Evaluation of R&D Requirements for Developing HVdc Converter Stations for Voltages above ± 600 kV. CIGRE 1988 Session, Paris, August 1988.

Deliyannides JS, Petrie HR, Mankoff LL, Nilsson SL. A new digital control and protection system for transmission substations. Paper 34-08. Presented at CIGRE 1986 Session, Paris, August 27–September 4, 1986.

Nilsson SL, Petrie HP, Castro C. Design of a program for evaluation of a new digital protection and control system. IEE 3rd International Conference on Developments in Power System Protection, London, April 17–19, 1985.

Poliner R, Reed TJ, Berkebile L, Nilsson SL. Application of fiberoptic in high voltage substations. Society of Photo-optical Instrumentation Engineers 25th International Technical Symposium, San Diego, CA, August 24–28, 1981.

Hingorani NG, Bahrman M, Reeve J, Larsen EV, Piwko RJ, Nilsson SL. Subsynchronous frequency stability studies of energy systems which include HVDC transmission. Symposium Sponsored by the Department of Energy, March 24–27, 1980.

Amelink H, Mulligan R, Nilsson SL. Digital fault data acquisition system. IEEE Control and Protection System Conference and Exposition, Houston, March 14–16, 1977.

Prior Experience

Independent Consultant, 1998–2000

Executive Vice President, Silicon Power Corporation, 1996–1997

Corporate Vice President, Energy Research & Management, 1994–1995

EPRI, Last held position as Executive Engineer, Electric Systems Division, 1975–1994

Boeing Electronics and Boeing Computer Services, 1972–1975

ASEA (now ABB) HVdc Department, Control Systems Engineer and Project Engineer, 1962–1972

Swedish State Telephone Board, Maintenance Engineer, Carrier Communication Systems (on leave for military service during 1961), 1960–1961

Project Experience

Investigated failures in underground vaults involving low voltage power distribution cable network as well medium voltage, solid dielectric cable systems.

Investigated the performance of energy metering equipment used to meter the energy supplied from an independent power producer to an electric utility in Malaysia.

Analyzed the design of a control system for an oil platform in regards to a project delay dispute. Also performed similar investigations in regards to water pumping facilities used for supply of water to major population centers.

Investigated the performance of protective relaying systems related to outages in electric utility transmission and distribution applications as well as in oil refineries, chemical and industrial plants. The investigation covered the activities of electricians, technicians and engineers performing installation and maintenance tasks and also included review of contracts, specifications and work orders.

Analyzed failure of small to large, oil filled as well as dry type power transformers and high voltage shunt reactors and identified likely root causes for the failures.

Investigated failure of high voltage, oil filled circuit breaker, medium voltage power cables as well as short circuits in metal clad/enclosed medium voltage power distribution equipment. Also investigated short circuits and failures in commercial and industrial low voltage power

distribution systems. This covered electric arc flash injuries, electric shock and electrocution incidents.

Investigated failures of power supplies used in computers or similar electronic equipment. These investigations covered failures of circuit boards as well as components such as capacitors, varistors or semiconductor switches. Failures of batteries such as Lithium Ion, Nickel-Cadmium, lead-acid batteries are also frequently a part of these investigations. Fire and electric shock hazards are often issues to be considered in the investigations.

Investigated incidents in which small electric appliances, dishwashers, ranges, electric stovetops, microwave ovens, cell phones, portable computers etc. are suspected of having caused fires or electric shocks. Also investigated the performance of gaming machines exposed to a fire.

Consulted on investment fraud case involving power quality control equipment and has performed technical due diligence investigations for investment decisions both before and after joining Exponent. This includes being retained as a consultant on mergers and acquisitions to assess the potential value of patent portfolios and other technology barriers owned or controlled by the potential acquisition target.

Investigated the performance of computer control systems as well as conventional relay control logic systems using electromechanical devices. The performance of the software was a part of the investigations where computers or microprocessors were a part of the system. Lockup of the software was evaluated as a part of these cases.

Consulted on power electronic for industrial, electric utility and commercial applications. This covered both design and failure analysis of uninterruptible power supply systems as well as emergency diesel-electric backup power supply systems.

Prior to joining Exponent, Mr. Nilsson managed research, development, and manufacturing of power semiconductors for industrial and electric utility applications. This included development of solid state transfer switches primarily for power quality applications and converters suitable for motor drives and large UPS applications. Mr. Nilsson was also responsible for marketing and sales of the devices and equipment.

For close to 20 years, Mr. Nilsson worked for EPRI where he was responsible for research and development of equipment and systems used by the electric utilities for ac substations and high voltage dc (HVdc) applications. The development projects included advanced transformer windings and magnetic cores, thyristor devices, metal oxide varistors, multiprocessor system for control and protection of ac transmission systems including development of local area networks, fiber-optic data links and software for performing the control functions, diagnostic equipment suitable for on line monitoring of transformers, breakers and arresters, new power electronic systems for control of the power flows in ac transmission lines, electric and magnetic fields in ac and HVdc stations, and advanced control methods for HVdc and ac systems. One of Mr. Nilsson's projects was to develop a calibrations system for Capacitive Voltage Transformers (CVTs). This work resulted in a truck mounted, mobile system used to perform

calibration services to utilities using CVTs for energy metering. Mr. Nilsson also led developments of low energy, electronic current transformers (CTs) suitable for metering as well as relaying applications for ac and HVdc systems. Furthermore, he led development of algorithms for energy metering applications in microprocessor based energy metering devices. Mr. Nilsson's responsibilities included technology assessments, market and competitive environment analysis, and IP evaluation that included support of the licensing activities of EPRI. This work frequently entailed assessment of the cost of losses to achieve an economically justified balance between the first cost (capital cost) and the operating costs for a new or improved piece of equipment. Most of the time, these assessments were based on a regular calculation of the net present value but in many instances, the effects of depreciation or capital charging rules as well as the impact on the taxes and other financial aspects had to be considered as a part of the evaluation.

At Boeing, Mr. Nilsson was managing development of a computer aided dispatch center system for law enforcement applications. The system captured information from a 911 emergency call system and allowed the dispatchers to direct patrol cars as required to handle the various situations. Mr. Nilsson also took part in the development of real time operating systems for minicomputer applications, design, marketing and sales of energy management systems for utility applications and advanced metering and relaying equipment.

While working for ASEA (now ABB), Mr. Nilsson was assigned to HVdc projects for which he had responsibility for design of protective relaying and control systems, installation and commissioning tests of the systems. He was also involved with system engineering, and control system development for HVdc projects. This included the world's first multiprocessor, multitasking computer system applied for control of an HVdc system.

Editorships and Editorial Review Boards

- Guest editor with W.F. Long of the IEEE Power & Energy Magazine, Volume 5, Number 2, March/April 2007

Peer Reviewer

- IEEE Transactions on Power Delivery
- CIGRE Study Committee B4 on HVdc and Power Electronics

Professional Affiliations

- IEEE
- International Council on large Electrical Systems (CIGRÉ)
- Regular Member representing the United States to Study Committee B4, HVDC and Power Electronics, CIGRÉ
- Past member of the IEEE Standards Board
- IEEE-Power Engineering Society's (PES) Transmission and Distribution Committee (Past Chair)

Deposition /Trial Testimony

Depositions

Uraldo Nova Martinez; Ismael Nova Martinez; Juan Jose Rosales; Arturo Flores; Ovidio Rodas; Antonio Cacique Molina; Jose Flores Pena; Jose A. Portillo. aka Jose Pena Flores; Juan Sanchez Miramontes, a minor, by and through his Guardian Ad Litem; Irma Miramontes; Plaintiffs vs. J.R. Simplot Company; J.R. Simplot Soilbuilders; Jose Banuelos Salazar; Arnulfo Ruiz Alvarez; Raquel Miramontes, Herrera Packing Co., Inc.; and Does 1 to 100; Defendants, Superior Court of California, County of Santa Barbara, SM113783.

JAMS /Endispute, Inc. Arbitration: United Pet Group, Inc. Claimant against FCP Southeast Investors, IV, LP, and its general partners FCP Partners IV, LP and KV IV Investors Corporation and Nationscredit Commercial Corporations. Respondents.

Bonnie Clements, as administratrix of the Estate of Ronald J. Clements, Plaintiff, vs. No. CV-00-1537-WHR, General Motors, a corporation; Schumacher Electric Corp., a corporation; Jimmy Smith Chrysler Plymouth Dodge, Inc., a corporation; et. al., Defendants, In the Circuit Court of the State of Alabama in and for the County of Blount.

Susan C. Chandler, Plaintiff vs. Catholic Healthcare West, dba Marcy Hospital, et. Al., Defendants, Superior Court of the State of California for the County of Kern, No 242034 SPC.

Mayra I. Cruz Rivera and Ivan Melendez Camacho, et. al., Plaintiffs, vs. General Electric Company, Inc., et. al., Defendants, The United States District Court for the District of Puerto Rico, Civil #00-2353CCC.

Raymond Arroyo and Ofelia Masedo Arroyo, Individually and a/n/f of Maria Celeste Arroyo, a Minor v. JLG Industries, Inc., et. al., Pending in the Probate Court No. 1, Harris County, Texas, Cause No. 320,849-401.

Dimare, Inc.; Dimare Enterprises, Inc.; DMB Packing Corporation; and the Northern Insurance Company of New York, Plaintiffs, vs. Imperial Irrigation district; Cooper Industries, Inc.; Cooper Power Systems, and Does 1 through 100, Inclusive, Defendants, Superior Court of the State of California for the county of Riverside Indio Court, INCR360908.

Dr. Nasrin Mani, Dr. Darush Mohyi, Dr. Hamid Mani, and Dr. Majid Mani, Plaintiffs vs. Hassan Yarpezeskhan, Arthur, Laffer, Qualmag, Inc., a California Corporation, Matranga & Correia, an accountancy corporation, and Does 1 through 20, inclusive, Defendants, and related cross-action, Superior Court of the State of California for the County of San Diego, No. GIC 807763.

John Parks, Plaintiff, vs. The Board Of Trustees Of The Leland Stanford Junior University, Howard Berry, and Does 1 To 50, Defendants, Superior Court Of The State Of California In And For The County Of Santa Clara, Case No. 1-03-Cv-815646.

Valero Refining Company, California, Claimant vs. Encompass Power Services, Inc.,
Respondent, American Arbitration Association, Houston, Texas, Case No. 70 Y 198 00457 03.

Full House, Inc., a Nevada Corporation, Plaintiff, vs. Simplex Grinnell, Lee Dietsche, Elena Dietsche and Does 1-10, Defendants, No. CV-C-05-02046, Hudson Insurance Company, a Delaware Company, Plaintiff, vs. Simplex Grinnell, L.P., a Delaware partnership; Elena Dietsche and Duane Werde, individually and as agents of Simplex Grinnell., L.P. and DOES 1-10, defendants, In the Second Judicial District Court of the State of Nevada in and for the County of Washoe.

Lexington Insurance Company, Plaintiff vs. The M.W. Kellogg Company, KCI Constructors Inc., Westinghouse Electric Corporation and Dashiell Corporation, Defendants, 14th Judicial District Court, Parish of Calcasieu, State of Louisiana, Case Number 96904 Division A.

Gunn Hill Dairy Properties, LLC, et. Al., Plaintiffs, vs. Los Angeles Department of Water and Power, et. al., Defendants, In the Fourth Judicial District Court, Millard County, State of Utah, Case No. 050700157.

Coast Converters, Inc., a Nevada limited liability company, Plaintiff, vs. Hyden Electrical Consulting, Inc., a Nevada Corporation; Delta Diversified Enterprises, Inc., an Arizona corporation; Richard Tomasillo, and individual and DOES I through X and ROE Corporations, I through X, inclusive, Defendants, District Court, Clark County, Nevada, Case No. A516451, Dept. No. XV.

Raymond Martinez and Gloria Martinez, Plaintiff, vs. Brownco Construction Company, Inc. and DOES 1-50, inclusive, Defendants, Superior Court of the State of California for the County of Los Angeles-East District, Case No. KC050128 G.

Trials and Arbitrations

Uraldo Nova Martinez; Ismael Nova Martinez; Juan Jose Rosales; Arturo Flores; Ovidio Rodas; Antonio Cacique Molina; Jose Flores Pena; Jose A. Portillo. aka Jose Pena Flores; Juan Sanchez Miramontes, a minor, by and through his Guardian Ad Litem; Irma Miramontes; Plaintiffs vs. J.R. Simplot Company; J.R. Simplot Soilbuilders; Jose Banuelos Salazar; Arnulfo Ruiz Alvarez; Raquel Miramontes, Herrera Packing Co., Inc.; and Does 1 to 100; Defendants, Superior Court of California, County of Santa Barbara, SM113783.

Valero Refining Company – California, Claimant, v. Encompass Power Services, Inc.,
Respondent. Case No. 70 Y 198 00457 03.

In the matter of a Power Purchase Agreement dated 16 October 2003 entered into between Segari Energy Ventures Sdn Bhd (formerly known as “Sikap Energy Ventures Sdn Bhd”) and Tenaga Nasional Berhad AND In the matter of Rules for Arbitration of the Kuala Lumpur Regional Centre for Arbitration BETWEEN SEGARI ENERGY VENTURES SDN BHD (Formerly known as Sikap Energy Ventures Sdn Bhd), Claimant AND TENAGA NASIONAL BERHAD, Respondent, Kuala Lumpur Regional Centre for Arbitration, Kuala Lumpur, Malaysia.

Raymond Martinez and Gloria Martinez, Plaintiff, vs. Brownco Construction Company, Inc. and DOES 1-50, inclusive, Defendants, Superior Court of the State of California for the County of Los Angeles-East District, Case No. KC050128 G.