

# DAVID F. PERRINO

## QUALIFICATIONS

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Mr. Perrino possesses the expertise to advise the energy industry on policy issues related to retail and wholesale deregulation as well as enterprise software solutions for their business problems. He has over thirty (30) years of technical, business and project management experience in the electric energy industry.

## EDUCATION

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- UC Santa Cruz, Sunnyvale, California (May 1999), Marketing and Sales (Course work),
- Union College, Schenectady, New York, (May 1982) Economics (Course work)
- Adirondack Community College, Glens Falls, New York (June 1973), Electric Technology

## EMPLOYMENT HISTORY

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### **ECCO International, Inc.**

#### ***Vice President and Chief Operating Officer, April 2005 – Present***

Responsibilities with ECCO International have been providing business development guidance to seek out, establish new relationships and grow our business. During this time there have been various consulting assignments as well including providing executive management services in the form of business planning and product development guidance to ECCO clients.

#### *Accomplishments:*

1. Successfully led ECCO International, Inc being named as the winner of the ERCOT LoLP Study.
2. Successfully led ECCO International, Inc providing QA Engineers to ABB Inc..
3. Successfully introduced and led the qualification of ECCO International, Inc being named as one of the preferred consulting firms to PJM and providing Consulting SCADA Engineers.
4. Successfully introduced and led the qualification of ECCO International, Inc being named as one of the preferred consulting firms to the Midwest ISO.
5. Successfully introduced and led the qualification of ECCO International, Inc being named as one of the preferred consulting firms to ERCOT.
6. Successfully lead the pre-qualification of ECCO International, Inc with:
  - a. New York Independent System Operator (NYISO)

- b. Independent System Operator – New England (ISO-NE)
  - c. Independent Electricity System Operator (IESO)
  - d. Several other large US utilities
7. Successfully developed leads and managed the proposal efforts which directly lead to executed contracts with:

<b>Staffing</b>	<b>Consulting Services</b>
PJM	IESO
Midwest ISO	Algonquin
ERCOT	Wal*Mart
Southern California Edison	SCPPA, NCPA
Pacific Gas and Electric	Mirant
	Southern California Edison
	Pacific Gas and Electric

- 8. Lead the in-house effort to design and construct the ECCO International, Inc LMP web services-site
- 9. Successfully recruited highly qualified staff for ECCO International, Inc.
- 10. Lead the in-house effort to redesign and construct the ECCO International, Inc web-site
- 11. Manage the administration of the ECCO in-house email system
- 12. Manage the invoicing of clients
- 13. Manage staff needs
  - a. Client Interviews
  - b. Travel
  - c. Accommodations
  - d. Invoicing
  - e. Salary administration
  - f. Benefits acquisition and administration

**ECCO International, Inc.**

***Principal Consultant, October 2002 – April 2005***

CAISO Market Redesign Technology Update (MRTU) - Acted as the User Interface (UI) Lead for the MRTU project. Primary responsibilities included writing the UI specification used by Siemens to develop user displays for the new market systems. Acted as the Lead of the UI development team consisting of CAISO personnel. As Team lead it was my responsibility to be sure the operating staff fully understood the requirements for the new UI and participated in the design, review and implementation portion of the project. Assisted in the development of preliminary operations and market design support for the MRTU that included the Integrated Forward Market and Real-Time Nodal

implementation (IFM/RTN). The IFM/RTN implementation includes the creation of new transmission arrangements to hedge congestion costs in the Day Ahead Markets.

CAISO Phase 1B - Provided operational expertise on the Security Constrained Unit Commitment and Security Constrained Economic Dispatch implementation. Provided operating guidance in development of software and testing procedures to assure that the applications meet the requirements of the CAISO and the market. Prepared informational papers and training materials for use by CAISO market participants such as the Automatic Dispatch System (ADS) and Expected Energy publications. Prepared and delivered training courses to the CAISO Operations personnel. Other activities have included assisting in development of preliminary operations and market design support for the MRTU project that include the Integrated Forward Market and Real-Time Nodal implementation (IFM/RTN).

### **PricewaterhouseCoopers (PwC)**

***February 2002 – October 2002***

Heavily involved in the Korean Power Exchange project (KPX) development project providing technical support in validating Functional and Design Specifications against the software contract with ABB as well as providing expert advice in the development of the new market rules. Lead the review of the Market Applications (MA) functional specifications and technical specifications on MA interfaces. Lead the review of all interfaces between the Market Operations System (MOS) and the New Energy Management System (NEMS). Addressed and resolves all MA and MOS-NEMS related issues with ABB/KDN consortium.

Other duties included working with KPX and ABB staff to keep the software project on-schedule. Duties also included extensive project management responsibilities.

### **Enron Corporation**

***Director of Government Affairs, April 2001 – December 2001***

Key roles included representing Enron in various technical forums and advancing the debate on existing and proposed policy and market design and its effect on Enron's western trading operations. Specifically focused on CAISO's transmission availability policy and FERC related issues. Was Enron's representative on the Western Market Interface Committee which helped identify impacts of reliability policy on commercial operations in a competitive environment.

Responsible for and successfully managed, coordinated and filed with the US Federal Energy Regulatory Commission, Enron's intervention during the WestConnect RTO proceedings. As manager of the intervention process it was my responsibility to be the expert on WestConnect policy, review the policy with Enron trading directors, and coordinate and draft the main points associated with Enron's objections. Once drafted it was my responsibility to work closely with

Enron staff attorneys, finalizing and delivering the intervention within the designated deadline.

Lead developing and delivering a power system operations course to the Enron western region trading staff. The course consisted of basic power-flow examples, MVAR requirements and real-time congestion, and their impacts on operation of the grid and their effect on prices of energy and ancillary services.

Lead representative for the generating/marketer class in the early phases of discussions of a west-wide market monitor. In summary, my responsibilities at Enron were:

- Represent Enron in Western Regional RTO development and CAISO proceedings
  - Lead in WestConnect RTO proceedings
- Provide technical analysis when CAISO policies and practices impacted Enron's wholesale electric energy business
- Support deal teams in securing the necessary regulatory approvals
- WECC representative for Enron on the, Operations Committee, Western Market Interface Committee and Operating Transfer Capability Policy Group.

## **Automatic Power Exchange**

### ***Director, Business Development, April 2000 – April 2001***

Lead for positioning APX as preferred supplier of exchange and settlement services to various ISOs. Other key duties included in-depth understanding of RTO West Markets and Congestion Management protocols and interpreting these requirements to the development staff of APX for creation of a demonstrable model of exchange systems specific to application within RTO West.

Project manager for adapting APX technology to support the development of a demonstrable Transmission Rights exchange system which included key functionalities such as rights auctions and posting of bids and offers to a secondary market. Future plans included integration of exchange functions with RTO West network model and load flow which would accommodate a real-time application of software. As project manager it was my responsibility to gather requirements, develop a functional specification and the work with APX technical staff to assure that the software met the requirements stated within the functional specification.

Provided research, documentation and policy development to support APX's corporate goals for developing new business ventures. In summary, at APX my responsibilities were:

- Solely responsible for business development of APX Grid Management Services Markets in the WECC

- Responsible for technical development of APX Grid Management Business
- APX technical representative to various NERC, WECC and developing RTO workgroups.

## **ABB Energy Information Systems**

### ***Marketing Director, July 1997 – April 2000***

While at ABB besides managing the day to day marketing department requirements successfully lead the development of ABB Energy Information Systems *first* commercial web site. As project manager for the web site development I was responsible for directing the development of a specification from my staff. Evaluate and select vendors of web site development and then work to assure the site development was completed on-time and within budget. As part of this effort I was also in-charge of coordinating our efforts with 3 other country managers as ABB Energy Information Systems had offices in Frankfurt Germany, Stockholm Sweden and London England and it was my responsibility to assure that these offices provided sufficient product information and detail to be included on the web site.

At ABB my key responsibilities were:

- Direct business planning to meet the requirements in emerging deregulated electric energy industry
- Provide leadership for product development, features and pricing
- Provide leadership in advertising and other external communications
- Develop and administer budget in excess of \$1.5M for marketing department

## **New York Power Pool,**

### ***OASIS Project Lead and Locational Based Marginal Pricing (LBMP) Development Team Member – New York Power Pool, June 1996 – July 1997***

The lead person for interpretation of FERC Order 889 and subsequent implementation of a Federal Energy Regulatory Commission (FERC) compliant Open Access Same-time Information System (OASIS) node serving the New York Power Pool Members. Key responsibilities as project lead included translating FERC policy into business requirements and then work with NYPP and ABB Energy Information Systems (EIS) computer programming personnel to develop and implement the OASIS site. Key features of OASIS site included interfacing OASIS with data communications applications to communicate from NYPP OASIS site to member systems, providing a seamless interface between Transmission Customers and each Transmission Provider within the NYPP. Additional duties associated with OASIS Project lead included assisting with development of documentation and training materials for Transmission Customers as well as delivering training to NYPP Transmission Customers

regarding the operation of the OASIS systems. As a LBMP team member, duties included working on data requirements from NYPP EMS facilities to newly developed Security Constrained Unit Commitment (SCUC) to accommodate the running of the advanced applications associated with the LBMP model. In addition to the roles described above additional responsibilities included acting as key liaison between NYPP operation staff and IS staff as well as being stationed at ABB EIS site in Santa Clara acting as technical lead between NYPP and ABB EIS development staff during the EMS migration project. At the New York Power Pool I was also the key liaison between Operations and Information Services departments.

### ***Senior Shift Supervisor, June 1982 – June 1996***

As Senior Shift Supervisor successfully managed the project of UI development associated with the NYPP System Operators. As lead person it was my responsibility to gain the support of senior management, draft prototype displays, solicit input from other operators within the group and make any adjustments. Once the initial process was completed it was my responsibility to work closely with the NYPP computer operations department to assure the displays were correctly developed and deployed.

As a Senior Shift Supervisor at the NYPP my key responsibilities were: Responsible for reliability and security of the New York Power Pool bulk power grid.

- Administered policy and procedures as they related to emergency and operating conditions within New York and surrounding energy control areas
- Introduced and successfully lead effort to implement 12 hour shift rotation

## **PROFESSIONAL HISTORY**

### **Founded, Perrino and Sons, Inc.**

Founded a consulting company which possesses the expertise to advise the energy industry on policy issues related to retail and wholesale deregulation as well as enterprise software solutions for their business problems, system operations, and operations planning.

### **Managing Partner, Eccella, LLC**

Co-founded a consulting company which possesses the expertise to advise the energy industry on policy issues related to retail and wholesale deregulation as well as enterprise software solutions for their business problems, system operations, and operations planning.

### **Managing Partner, RTOAdvisors, LLC**

Co-founded a consulting company which possesses the expertise to advise the energy industry on policy issues related to retail and wholesale deregulation as

well as enterprise software solutions for their business problems, system operations, and operations planning.

### **COMMUNITY ACTIVITIES**

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- LAMV PONY
  - Player Representative
  - Baseball Division Director
- Sponsor and manager of Los Altos Mountain View Pony League teams
- Pro-Bono Energy Policy consultant to Mr. Steve Westly during California Gubernatorial Primary.
- Previous sponsor, board member and manager of Pine Bush Little League. – 12 years
- Former member of the Eastern Collegiate Athletic Conference as a collegiate football official – 3-years
- Former member of the Capital District Football Officials Association as a prep-school referee. Also member of the mentoring program acting as a football official mentor for incoming officials – 15 years.

### **PUBLICATIONS AND PRESENTATION**

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- Power Economics, September 2000, "*Electric Retail: What Competition?*"
- OASIS, Panel presentation and Presentation of the difference between physical and financial transmission markets, NERC/EPRI Conference, New Orleans, 1997
- OASIS, NYPP OASIS Readiness, NERC/EPRI Conference, Washington DC, 1997