

Curriculum Vitae de Kim Warren

Kim P. Warren

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A distinguished career with over 38 years of power grid control centre based experience. The voice of interconnected operations for the IESO and its predecessors, to Premiers, Energy Ministers, regulators, federal and provincial entities for over a decade. Strong operations and planning background further augmented through a corporate development rotation leading the IESO's Regulatory Affairs department. Recognized across the industry as an expert in interconnected grid operations. A champion of change, a strong advocate for our electricity consumers, the benefits of wholesale markets and the province of Ontario.

Core competencies include....

Leadership, Teamwork, Customer Focus, Strategic Business Sense, Expert Knowledge, Organizational Insight and Performance, Initiative, Results Driven and Employee Relations

Professional Experience (IESO or predecessors)

Vice President of Market and System Operations and Chief Operating Officer, 2011 – 2016

Responsible for the operation of the provinces electricity marketplace and for directing the reliable operation of the provinces interconnected power system. Chair of the province's Emergency Planning Task Force and Crisis Management Support Team for grid based electrical emergencies.

- A strong advocate of the IESO and a champion of its vision and values. Seamlessly spoken for the CEO in his absence at major industry events such as the annual OEA and APPRO conferences.
- Championed both the "Alternative Technologies for Sources of Regulation" effort and the purchase of an electric vehicle to further advance the IESO's reputation as an industry leader.
- An integral part of IESO/OPA merger activities including participation within the "Target Operating Model" design team for the proposed merged entity.
- Intimately involved in evolving IESO operating and engineering protocols, including EDAC and the Renewable integration initiatives, as we adapt and prepare for future operations of our evolving supply mix.
- Advanced IESO relationships with market participants and particularly the natural gas sector realizing the importance they will play in the coming years.
- Successfully managed numerous real time operating events including sustained periods of significant surplus conditions, heat waves, drought conditions and severe storm events without incident. Included in the management of these events was the foresight to implement "actions in advance of extreme events" which has been well received by our market participants.
- Redesigned IESO settlement and operational support functions and achieved significant efficiency gains while revitalizing staff performance.
- Significantly advanced the IESO's compliance risk based framework, collection of evidentiary materials, reporting and mitigation efforts to further advanced IESO's culture of compliance and strong standing in the interconnected community.
- A strong advocate for staff training, development and knowledge transfer. Active member of the IESO mentorship program.

Director, Planning and Assessments, 2008 - 2010

Directed the development of operating policies, reliability standards, grid connections and system operating limits for the provinces power system.

- Realigned engineering functions and departments to address growing trends surrounding renewable connection assessments and condensed approval timelines.
- Established an engineering based training and development program that later became the beacon of change for similar IESO programs.
- Revamped adequacy and assessment criteria and analysis, including surplus energy forecasting, in adapting to the provinces ever changing supply mix.
- Oversaw the coordinated retirement of the provinces coal fleet and the orderly connection and commissioning of both the natural gas and nuclear replacement fleets.
- Represented the company on numerous renewable resource initiatives including the design of the FIT program and a weeklong energy based tour of Denmark with the CEO of the OPA.
- Moved the company forward with the successful implementation of "On Line Limits" which included a significant paradigm shift in the manner in which our engineering staff derive and manage system transfer limits.
- Personally supported OPA based community information sessions that led to successful construction and operation of the Portland and York Energy natural gas plants.

Manager, Regulatory Affairs, mid 2005 - 2007

Advocated and advanced IESO positions on a number of fronts including the evolution of NERC into the Electric Reliability Organization for North America.

- Personally led Ontario's efforts to champion NERC as the ERO and advance the IESO's and Ontario's position as what was then called the pinnacle of reliable interconnected operations.
- Led the company's efforts within the OEB Natural Gas Electricity Interface proceedings to support the provinces initiative for a reliable transition off of coal.
- Chaired numerous CEA based US focused initiatives on interconnected grid operations. Spoke at two FERC technical conferences, met numerous times with FERC commissioners, senior DOE staff and Canadian Embassy staff in Washington DC. Hosted US Ambassador and members of the US Consulate at our operating centre on interconnected grid related matters.
- Championed three successful OEB business plan submissions.

Manager, System Operations, 2000 - 2005

Responsible for the operation of the IESO administered markets and the IESO controlled grid.

- Successfully managed grid and market operations through several years of severe shortfall as well as the cultural shift from command and control to market operator.
- Managed grid operations through the events of 9/11 and the subsequent fallout of heightened awareness and grid centre preparedness.
- Drove Operations and significantly assisted then IMO efforts towards a successful market opening and the sustained operations of the highest quality that followed.
- Directly responsible for and successfully led the provinces power system restoration efforts during and following the blackout of August 2003.
- Recognized by NERC and the industry as an expert in the fields of emergency response, system restoration and interconnected grid operations. Tasked to evolve NERC operating policies within 3 months of the 2003 Blackout. Formally recognized by Canadian and US federal governments for actions taken in providing early mitigation efforts to prevent reoccurrence.

Operating Superintendent, 1999

First level supervisor in support of real-time operations.

- Provided operational expertise and input into capital work programs including many of the business processes that later would become today's operating protocols.
- Provided "Y2K" operational support for advanced grid planning, preparations and response.
- Liaison with customers on day to day events and resolution of issues.

Control Room Operations 1982 - 1998

- Steadily rose through the operator ranks at a brisk pace including several years as the senior shift authority for all grid and production based operations.
- Provided on site operational expertise to the Republic of South Korea (Seoul) during a 1 month exercise to assist them in managing their system control centre operational issues via Ontario Hydro International (OHI).
- Successfully managed numerous operational challenges, including the Northwest blackout and the ice storm of 1998.

Education and Professional Affiliations

Ontario Hydro Electrical Operator Apprenticeship Program, 1978 - 1982

Queens School of Business – Leadership, 2005

Queens School of Business – Strategy, 2007

Board Member, Northeast Power Coordinating Council, 2014 - 2016

ISO/RTO Council

IRC – Operating Committee, 2013- 2016

North American Electric Corporation

MISO/PJM Joint Working Group, Chair, 2004

Operating Reliability Subcommittee, Vice Chair, 2004 – 2005

Reliability Coordinator Working Group, 2001 - 2005

Northeast Power Coordinating Council

Reliability Coordination Committee, 2008 - 2010

Task Force on Coordinated Operations, 2008

System Operations Managers Working Group, 2000 - 2005

Canadian Electricity Association

Transmission Council, Member 2005 – 2007

Regulatory Development Task Group, Chair, 2005 - 2007

Other

Ryerson University, Centre for Urban Energy Advisory Council, 2012 - 2014