From: jamesmeaney@nalcorenergy.com
Sent: Friday, March 28, 2014 8:57 PM

To: Manzer, Alison

**Subject:** Fw: CVs of the new team members - Team NALCOR

Attachments: Khalil, Hamdy MWH 2014 format.docx; Low, James - New\_ME.docx;

losfin Helen -2012 New resume V2.docx; resume VK 2012.doc;

2014-02-20 Paul Hewitt Resume-Hewitt Consultants.docx

In light of what happened this past week with IE certificate, is Canada comfortable with his proposed QA/QC choice?

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Nikolay Argirov < Nikolay. V. Argirov@mwhqlobal.com>

Sent: Friday, March 28, 2014 7:30 PM

To: Manzer, Alison (amanzer@casselsbrock.com); Krupski, Joseph (Joseph.Krupski@l

Subject: CVs of the new team members - Team NALCOR

Those are the new members that will be added to the existing team for Phase 2.

There are other changes to the originally proposed for Phase 2 team :

- 1. Nik Argirov will take over PM
- Rey Hokenson will be QA/QC together with Howard Lee.
- Bliss, Donalek and Farzin Arefi are no longer in the team.

Regards,



#### **AREA OF EXPERTISE**

Transmission Line Engineering

#### **EDUCATION**

B.Sc., Civil Engineering, University of Cairo, Egypt

B/Sc., Electrical Engineering, University of Western Ontario

#### PROF. REGISTRATIONS

Professional Engineer: AB, BC, SK

#### YEARS OF EXPERIENCE

18

## Hamdy Khalil, P.Eng. PMP

Senior Transmission Line Engineer

Mr. Khalil is a Senior Transmission Line Engineer with over 18 years of experience in the design, construction, and maintenance of transmission lines at voltage levels from 60 to 500 kV.

Work experience includes most aspects of transmission line design with specialization in the areas of structures, conductors, insulators, and hardware with significant expertise in the areas of: transmission line maintenance; development of design and maintenance standards; development of asset management policies and strategies; development of project specification; and technical design review. Transmission Line Designer with more than 8 years of experience primarily in 66kV to 500k design line layout, project specifications, foundations and structure design

He has contributed to the development of Canadian technical standards for overhead conductors and insulators as part of the Canadian Standard Association (CSA), and participates as a member of Institute of Electrical and Electronics Engineers (IEEE).

#### RELEVANT PROJECT EXPERIENCE

Owner / Senior Transmission Engineer, HK PowerLine Consulting Inc.

- o Overhead Transmission line design, electrical studies, route selection, layout and specifications. Contract and RFP preparation, tender review and evaluation.
  - o Owner Engineer role for SaskPower.
  - Consultant contract with BC Hydro

# **BC Hydro Vancouver, BC,** Senior Overhead Transmission Engineer, Asset Management

- o Develop of maintenance and sustainment strategies for the transmission grid to ensure the system continues to have operating capabilities required by stakeholders and to enhance return on investment.
- Develop a long term investment plan and prepare the annual work plan and budget for maintenance and sustaining capital programs.
- Develops product sourcing strategies and relationships with key vendors for the effective procurement of transmission system equipment and parts
- o Developing and recommending spare and replacement strategies
- o Review material specification for new suppliers
- o Development and establishment of standards and policies and conducting standards evaluation that related to overhead transmission lines.
- Transmission line design and design review of several projects "69kV to 500kV"
- o Proficient in using PLSCADD and related software
- o Development of LiDAR survey technical specification, PLS CADD requirements, standard PLS CADD feature codes, weather data, and a standard PLSCADD report.
- $\circ~$  Participate in the development of the technical specification for several projects "60kV 500kV"
- Prepared the technical tender specification for several maintenance and sustainment capital projects.

- Site visits and field support.
- Performing grounding, electric and magnetic field studies.
- o Promotes a research and development program which supports the long term needs of the asset management program and provides leadership and input with respect to maintenance and sustaining capital issues to facilitate and support the effective management and operation of the assets
- Support to R&D with the following projects: Thermal Dynamic Rating, Robotic demonstration on OHTL and working on the development of a conductor corrosion detection device in collaboration with Hydro Quebec.
- o Supporting assessment of asset performance and health and recommending continuous improvement.
- o Designed risk matrix, component sampling, and condition assessment software for the transmission components province wide.

### Lines Engineer, Lines Division, SNC Lavalin Inc. Calgary Alberta,

Lattice Towers:

150 kV double circuit Transmission Line - Indonesia

- o Line design, design of steel tower structures.
- Prepare design specifications and scope of works.
- Material take offs and construction support.
- Preparation of Client review package and Construction Package.
- 500 kV Transmission Line from Genesee Substation to Langdon Substation.
- o Involved in the design of Lattice steel towers using suspension insulators
- (I-string) versus 2-part insulators (V-string) to determine the most economical design for the single circuit tangent structure section.

### Wood pole structures:

- 138kV Transmission Lines; Big White Kelowna BC, Watson Creek Cold Creek Substation to the proposed Watson Creek Substation – Hinton AB
- Line design.
- Prepare design specifications and scope of works.
- Preparation of Client review and Construction Package.
- o Grounding study for the line
- Material take offs and construction support.
- o MATL, Montana Alberta Tie Line 138kV.
- o Foundation design.
- Cost comparison Study for single self-supporting Dead-end structure versus three Pole Guyed Dead-end Structure.

#### Quality Control, Magna Automotive Inc., St. Thomas, Ontario

## Lines Engineer/Project Manager, Electrical Power System (EPS) Cairo, Egypt

- Aswan-Toshka 220KV, Sidi Krir interconnection 220KV, El-Kantara 220KV, El-Katamayi 66KV, El-Basateen El-Maadi 66KV, 6th of October El-Sadat 220KV, and Suez-Attaka 220KV projects.
- Design of electrical transmission facilities including substation buildings, structures and foundations.
- o Line design.
- Preparation of project specifications for material and equipment purchase and installation.
- Prepare work schedule, quantity survey, cost estimating, budgeting.
- o Construction manager and site supervisor for several projects.

## James Low, PMP

Project Management

#### **EDUCATION**

B.Ap.Sc. Civil Engineering, University of British Columbia

### PROFESSIONAL REGISTRATION(S)

Professional Project Manager - PMP

#### **SUMMARY**

Mr. Low brings 25 years of professional and technical experience in design, construction and project controls. He is currently serving in the Project Controls group on the Mica Units 5 and 6 Project. His responsibilities include developing and maintaining the Primavera P6 Master schedule, reviewing subcontractor's schedules and retrieving documentation for claims. Prior to serving on the Mica Project, Mr. Low served on the John Hart Generation Station Replacement Project performing planning, scheduling and project controls activities. He developed and maintained the project schedule, reporting and forecasting costs for a 135MW power generation station.

### RELEVANT PROJECT EXPERIENCE

MWH Global, Vancouver, B.C, Management, Technical Engineering and Construction Services for Wet Infrastructure Contractor to BC Hydro providing expert consulting services. Currently, assigned as Work Package Manager managing a budget of \$1.3M for the scheduling team on the Mica 5&6 Project. Prior assignment as a Project controls specialist for John Hart Generation Station Replacement. Planning and scheduling consisting of the development and maintenance of the Master Project schedule. Schedule analysis and schedule delay analysis. Retrieving documentation pertaining to claims.

CWD Formworks Ltd., Vancouver, B.C., Structural Concrete Forming Contractor

Preparation claim document, document review, schedule analysis, site overheads costs, head office overhead costs, contracts.

Revay and Associates Ltd., (Consultant) Vancouver, B.C., Project Management, Construction Management and Claims Consultants

Development of baseline schedules, reconstruction of as-built schedules, scheduling, delay analysis, productivity analysis, earned value analysis, construction cost and quantification, document reviews, review of extra work/change orders and preparation of proposals, expert reports and claims.

### Projects include:

- Mixed residential and commercial complex project
- Recreational centre renovation and expansion
- Renovation of major bridge
- Hydroelectric project
- o Rapid transit project
- Rebuild industrial boiler
- Heat recovery steam generator (HRSG) systems

- Directional drilling of large diameter pipe
- o Ship loader
- Ship passenger gangway
- Hi-rise office tower
- Educational institutional building
- o Agriculture Research
- o Hydroelectric station
- o Dam upgrade
- Highway construction

**Self Employed**, Part time studies BCIT Construction Management

Project controls, construction and contract law, construction accounting and finance, quality control, scheduling with Primavera and environmental course studies.

Andaco Projects Limited, *Junior Engineer, Vancouver, B.C., Construction Management* Quantity take-off, reviewing documentation and assisting in claims preparation.



Daiwood Construction Co. Ltd., Field Engineer, Vancouver, B.C Scheduling (manually, Timeline and Primavera), minutes of meetings, progress reports, daily reports, time

sheets, trade coordination on hi-rise concrete structures project.

C.T.I. Civil Engineering Services - *Field Engineer, Vancouver, B.C* Supervision of pile driving, field inspection and testing.

H.Y. Engineering Ltd., *Design Engineer, Vancouver, B.C.* Production of drawings, design and surveying.

C.S.F.M. Engineering Ltd., *Design Engineer, Vancouver, B.C.* Design and structural analysis.

Department of Civil Engineering, Research Assistant, Vancouver, B.C., The University of British Columbia

Department of Civil Engineering, Research Assistant, Vancouver, BC, The University of British Columbia

### **ORGANIZATIONS / MEMBERSHIPS**

Project Management Institute (PMI) (PMP)



# Helen Iosfin, P.Eng

Project Delivery & Client Service Manager

#### **EDUCATION**

M.Sc, Electrical Engineering, Polytechnical University, St. Petersburg, Russia

### PROFESSIONAL REGISTRATION(S)

Association of Professional Engineers and Geoscientists -BC

#### **SUMMARY**

Ms. losfin has over 25 years of Engineering and Management experience in Electrical Utility Transmission and Distribution with BC Hydro (13 years) and HA Simons (consulting engineering). She recently joined MWH Canada Inc. as a Manager T&D. Leader in the new technology development including long and short term visioning and strategy. Industry recognized expert in Asset Management, Power Systems studies and System Planning and Smart Grid applications. A strategic thinker with excellent organizational, leadership, communication and analytical skills as well as a proven ability to lead multifunction and multi-disciplined project teams and R&D initiatives.

#### RELEVANT PROJECT EXPERIENCE

MWH Global Inc, Vancouver, BC, Manager T&D

Responsible for T&D Strategy development and implementation. Her responsibilities included business development, preparation of proposals for T&D work, client relationships, Project Management, contract negotiations and overseeing all aspects of Electrical engineering work for the projects.

White River Project, Regional Power, Ontario

Review System studies, HV equipment specifications, One-Line diagrams for two 115kV substations connected two small Hydro Plants to Hydro One Transmission Grid. She provided assistance in preparation of Interconnections documents and review Project progress and quality control requirements.

Maritime Link project, Emera, St. John, NL

Leading IE review for electrical part of the project to build a Transmission link between Newfoundland and Nova Scotia. This project involves the construction and operation of a new 500 MW (+/- 200kV) HVdc as well as a 230kV HVac transmission line, and associated infrastructure. The project includes two 180km subsea cables and less than 300km of O/H Transmission line. This project helps government to meet 40%target for renewable energy.

BC Hydro, Vancouver, BC, Manager, Strategic Issues, Asset Investment & Strategy, T&D

Reporting to Vice President of Asset Investment and Strategy, led Smart Grid implementation initiatives including Smart Meters benefit realization, Voltage Var Optimization and Distribution Automation strategy using new technology including MicroGrid concept.

Developed strategy for joint Infrastructure Planning work between BC Hydro, Cities and Municipalities in BC that provided significant reduction in cost, environmental impact and increased customer satisfaction.

BC Hydro, Vancouver, BC, Manager, Special Projects, Power Smart & Customer Care

Led BC Hydro Customer Care and Power Smart team in development of concept "Green Neighbourhood Project" with City of Vancouver and Vancouver Economic Development (VED). Worked with City Senior Management Planning and Sustainability and made regular presentations to City Mayor and BC Hydro Executives.

Managed Customer Volt Var Optimization Project in the BC Hydro customer sites that provided benefit savings of more than \$100M. This project is first one in North America on this scale.



BC Hydro, Vancouver, BC, Director, Asset Investment & Strategy, T&D

Reporting to the Senior General Manager of Field Operations, lead BC Hydro Distribution Asset Management comprising System Planning, Maintenance, Risk and Performance, Operational Planning and Customer Policy teams. Managed \$250M Capital budget and \$150M Operational budget. Led, coached and mentored a team of

Worked closely with the CTO on the development of the technology roadmap and managed the technical review processes for major projects and programs, effectively managing risk exposure and ensuring timely and predictable outcomes. Directed the Risk Manager in developing performance metrics, ensuring alignment with performance targets.

Chaired technical committee for approvals of technical standards for Distribution, involving a rigorous Safety by Design approval process.

Led the development of decision-making models and framework in compliance with PASS55 Asset Management Standard and BC Hydro objectives. Developed solid relationships with Government agencies, Utility commission (BCUC), Consultants and other Utilities worldwide.

As part of BC Hydro's Official Supporter partnership with VANOC, ensured 2010 Vancouver Olympic Games met high standards for energy-efficiency while promoting a new standard of environmental stewardship. Planned and led the on-time delivery of uninterrupted power to Games venues, with no outages occurring.

Led Distribution Asset Management in development of BC Hydro Revenue Requirements Applications for F11 including Asset Management strategy to meet System Load Growth and Performance, Aging assets replacement, identify Risk and methodology of prioritization Capital and OMA spending. Applications was successfully approved by Utility commission BCUC.

Actively promoted and engaged in the New Technology and Smart Grid initiatives such as Development and implementation of Vancouver Downtown redevelopment long term plan (\$800M), H frame eliminations project(\$55M), implementation first in Canada Distribution Management system for Grid Operations, long term Smart Grid Map.

Led BC Hydro reliability improvement initiatives including System Resiliency (\$250M) that resulted in high customer satisfaction. Average customer satisfaction for reliability is around 90%.

Prepared and made presentations to BC Hydro Board of Directors, Executive teams and other leadership teams on Asset Management initiatives and projects.

BC Hydro, Vancouver, BC, Manager, Distribution Planning Department, Field Operations

Provided leadership in organizing and building the Distribution Planning Department/Team within

Distribution Asset Management after separation of BC Hydro and BCTC in 2002. Developed team roles, responsibilities, vision and objectives, and hired 15 people from across Canada.

Managed development and implementation of \$200M annual Capital Plan Program for Distribution System Improvement and \$150M annual Capital Plan for Distribution Substation Assets. Achieved plan completion at 95 - 97%.

Developed requirements, performance measures and evaluation principals for Service Level Agreements with internal and external Service Providers, signed by BC Hydro Executives for implementation. Managed Service Providers performance including BCTC, BC Hydro Engineering, design and external consultants to meet System Growth and Performance.

Represented Asset Management and Field Operations in negotiations with external customers, including IPPs, for connection to Hydro's Community Plan initiatives such as Whistler Energy Task Force and Squeamish Sustainability task force. Managed research and development initiatives such as Energy Storage solution to meet Load Growth requirements, Distribution Closed Loop system project (first in Canada) in West Vancouver, and IPP islanding in Vermont, BC.

Actively involved in BC Hydro Policy Review initiatives including implementation of Government Clean Energy act, Rural Electrification, Tariff changes, and T&D asset split.



BC Hydro, Vancouver, BC, Senior Engineer, Regional, System Planning, T&D

Developed Long and Short term Strategic Business Plan for BC Hydro Transmission and Substations system, voltages from 12kV to 500kV for the Northern Region including NE, NW and Central to meet Load Forecast. Performed Power System studies and Analysis to define Capital projects to reduce system constraints. Developed Risk Models and prepared Business Cases that supported project justifications.

Worked closely with different stakeholders including BC communities, municipalities, IPP's, consultants and BC Hydro customers to meet load requirements.

Used innovative solutions in system planning such as Energy Storage and Real Time Capacity Monitoring.

H.A. Simons Ltd, Vancouver, BC, Electrical Engineer, Electrical & Control Systems Department Provided technical expertise and lead Power system analysis work for number of domestic and international Pulp and Paper and Mining projects.

ARCO Alaska Inc., AK: Kuparuk.

Greater Vancouver Water District, Vancouver, BC: Water Treatment Plant.

Australian Paper, Mayvale, Victoria, Australia: No. 5 Paper Machine.

Highland Valley Copper, Logan Lake, BC: Power system upgrade project.

MacMillan Bloedel Limited, Port Alberni, BC: 12.47kV Buses A and B Replacement project.

CMPC, Laja, Chile: New 220kV substation project.

**St. Petersburg Co.**, St. Petersburg, Russia, System Planning Engineer, Protection & Control; Field Engineer, 330kv Substation

#### **ORGANIZATIONS / MEMBERSHIPS**

Member of Board of Directors:

2005-2012 Community Energy Association, Vancouver

2008-2012 Canadian Hydrogen Association, Vancouver

20010-2012 Edison Electrical Institute – Chair of executive committee, Asset Management 2005-2012 CIGRE – Canadian representative in WG "Dispersed generation" IEEE Member



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### RESUME

## Vladimir Kahle, P.Eng.

e- mail:
Cellular:

#### **Education:**

B.Sc in Electrical Engineering, Technical University, Brno, Czech Republic, 1968

### **Professional Affiliations:**

- 1977 to present: Practicing Engineer and Member of Association of Professional Engineers and Geoscientists of British Columbia (APEGBC)
- 1998 to 2011: Member of Board of Examiners of APEGBC
- 2006- 2007: Member of Transmission Sub- committee of Independent Power Producers of B.C. (IPPBC)
- 2004- 2005: Director of Independent Power Producers of B.C. (IPPBC)
- 1998 2002: Canadian National Member of CIGRE Study Committee 11, Rotating Machines
- 1998- 2002: Working Group member of CIGRE Working Group (W.G.) 11.01, Turbogenerators and W.G. 11.02, Hydrogenerators
- 1998- 2000: Chairman of B.C. Hydro Research and Technology Generation Working Group
- 1996- 2000: Working Group member of CIGRE Working Groups 14.12, commissioning of HVDC Stations, 14.04, Reliability of HVDC Systems
- 1996- 1999: Convenor of CIGRE Task Force 14.04.03, HVDC Reliability Reporting Protocol

### **Career Summary:**

- 2004 to present: Principal of a self owned independent Electric Utility Consulting (registration # 686313 BC LTD)
- 1992 to 2002: Manager of Electrical and Protection and Control (P&C) departments, Power Supply Engineering, BC Hydro, Vancouver, B.C. This senior technical manager's role included responsibilities for leading design and maintenance Electrical and Protection & Control professionals and delivery of full range of technical services to BC Hydro Generation Group
- 1969 to 1992: P&C Engineer, Supervisor, Senior Engineer, Project Manager in various departments with System Maintenance Division, B.C. Hydro.
- 1968-1969: Research Assistant at University of British Columbia Electrical Engineering Faculty, Vancouver, B.C.

Vladimir Kahle Page 2

#### **Electric Utility Industry Experience:**

- 2012: BC Hydro Distribution Planning- Evaluation of Bulk Energy Storage facility (1MW NaS battery at Field B.C.), preparation of Project Interconnection Requirements
- 2012: Bear Mountain Wind: Audit and revise mandatory reliability standards
- 2012: BC Hydro Distribution Planning- Evaluation of IPP (close transition transfer) applications.
   preparation of Project Interconnection Requirements
- 2012: BC Hydro- Dam Safety oriented water conduit P&C inventory for 4 hydroelectric dams
- 2011- present: AECOM- Analysis and revisions to Cape Scott Windfarm interconnection request and project EPC scope
- 2011: AECOM- Analysis and revisions to Seymour Arm and Ruby Creek 500kV capacitor station RFP response
- 2011- present: University of British Columbia- Engineering monitor for IPP project (Bio- energy Research and Demonstration Project)
- 2010 to 2011: B.C. Hydro Distribution Planning- Implementation of Safety by Design process (SbD process is hazard identification and development of control measures). Analysis of hazards associated with Distribution overhead electrical work and development of hazard reduction action plan
- 2010: EDELCA, Venezuela- Conducted dam and powerplant safety audit of Guri hydroelectric Plant1, plant 2 and flood control facilities in Puerto Ordaz, Venezuela
- 2010: Dokie General Partnership: Due diligence review and preparation of declaration of compatibility for 3 MW Vestas wind turbines
- 2010: B.C. Hydro Distribution Planning department- Engineering audit of close transition transfer (generator interconnection) applications for the fleet of coastal ferries and ferry terminals
- 2009 to present: Capital Power Corporation, Edmonton, Alta Interconnection liaison and Owner's Engineer for 147 MW Quality Wind Project near Tumbler Ridge, B.C.
- 2009- 2010: B.C. Hydro Engineering Conducted peer utility survey and developed the overall strategy for Large Hydroelectric Generating Station controls.
- 2009- 2010: B.C. Hydro Distribution Operations Reviewed and audited distribution level Net Metering (distributed generation) applications
- 2009: B.C. Hydro 2010 Olympic Initiatives team- Developed a proposal for 2010 Construction and Maintenance Freeze and Olympic Games venue feeders' outage risk mitigation.
- 2008- 2010: ZE Power Engineering- Lead Design Engineer and Task Manager for Volt- VAr Optimization P&C design project for B.C. Hydro's (200MW) Horne Payne substation.
- 2008: EDELCA, Venezuela- Conducted dam safety audit of three hydroelectric power plants and flood control facilities. prepared spill gate maintenance test procedures for Macagua Generating Station (installed capacity 3400 MW) in Puerto Ordaz, Venezuela
- 2008: B.C. Hydro Distribution Planning- Technical evaluation of Interconnection Requests for small hydro and bio- mass generator IPP interconnections.
- 2008: B.C. Hydro Engineering- Prepared Strategic Proposal for application of Air- Gap-Monitoring systems to BC Hydro's hydroelectric generators

Vladimir Kahle Page 3

- 2008: B.C. Hydro Distribution Operations Project Manager and Coordinator for 60 System Resiliency (a \$ 20.6 mil. distribution infrastructure improvement) projects
- 2008: B.C. Hydro Distribution Maintenance: Investigated and reported on manhole 2445 fire in downtown Vancouver.
- 2007: B.C. Hydro Engineering- Review and revisions of EPC specifications for station service equipment and emergency diesels replacement for B.C. Hydro's 2400MW GMS Generating Station.
- 2007- present: Aeolis Wind Clean Power Call Project- Owner's Engineer and liaison with B.C. Hydro transmission grid interconnection authority. Responsible for preparation of EPC and EPCM guidelines, Interconnection Requests (IR's), Generator Interconnecting Equipment Statement, conceptual wind farm substation and P&C single line diagrams.2006 to 2007: BC Hydro Distribution Planning dept. contract- Calculated expected service performance of 2010 Olympic venue feeders. Developed and implemented forced outage reporting and analysis process for 2010 Olympic Games venue supplies. Prepared P&C strategy for 2010 Olympics venue feeders.
- 2005- 2010: Bear Mountain Wind Project- Owner's Engineer for 100MW wind farm in Northern B.C. operator on grid interconnection requirements and issues. Developed framework for Mandatory Reliability Standards self certification process.
- 2007: B.C. Hydro Engineering- Plant equipment condition assessment and feasibility report for modernization of 600 MW Kooteney Canal Generating Station.
- 2006- 2007: BC Hydro Engineering- Assessment of spill gate control systems for medium and small hydroelectric plants. Developed Maintenance Standards and test procedures for flood discharge facilities' electrical apparatus.
- 2006: British Columbia Transmission Corporation- Analyzed ITOMS maintenance assessment results; reviewed and corrected the input data, performance metrics and prepared the action reports for substation and transmission equipment.
- 2005: British Columbia Transmission Corporation- Developed power transformer protection application guidelines for BCTC's transmission substations.
- 2004- 2005: B.C. Hydro Distribution Planning- Developed reliability indices for 2010 Olympic venue feeders. Determined historical reliability and risk assessment of the existing distribution circuit supplies. Developed 2010 Olympic Venue supply options.
- 2003- 2004: MTT Technologies Ltd., Manager of Electrical and P&C- Responsible for project proposals, estimating and marketing and technical standards.
- 1992- 2002: B.C. Hydro, Vancouver B.C.- Senior technical manager with responsibilities for up to 35 professional staff with responsibility for maintenance and design of electrical and P&C equipment in generating plants.
- 1987- 1992: BC Hydro, Senior Maintenance Engineer providing technical support to Vancouver Island HVDC link staff. The link consists of two converter stations each with two HVDC Poles. In addition, the Vancouver Island Terminal is equipped with four synchronous condensers.
- 1996- 2000: CIGRE HVDC working group member, chairman of a Task Force on HVDC reliability reporting. Published CIGRE report on the subject.
- 1974- 1987: BC Hydro, Protection and Control department Field Supervisor responsible for maintenance of the Arnott terminal station for the Vancouver Island HVDC link.
- 1976- 1978: BC Hydro, Protection and Control department Field Supervisor responsible for commissioning of HVDC Pole 2 (GE supplied thyristor based 280kV converter station).

Vladimir Kahle Page 4

## **Publications:**

List of publications will be provided on request

### References:

Professional references will be provided on request

## Languages:

English, Czech

Updated: 2012- 09- 17



## Paul Hewitt MSc.P.Eng.

Principal
Hewitt Estimating Consultants
71 Cole Street, Waterdown, Ontario Canada
Tel: 1-519-830-7300

phewitt@infrastructurecost.com

#### Education

### Queen's University, Kingston, Ontario, Canada

B.Sc. Civil Engineering, 1971-1975 M.Sc. Civil Engineering, 1978

Majored in Structures and Construction Materials

Publications: American Concrete Institute 1978- Progressive Concrete Mix Design Associations: Member Association for the Advancement of Cost Engineering

Association of Professional Engineers of Ontario

Canadian Society of Civil Engineers

#### **Employment Experience**

### Hewitt Estimating Consultants International Project Estimating Limited Principal

March 2004 to Present

Provide contract estimating and project management services for major PPP, design build and heavy civil infrastructure projects. Responsibilities including preparing detailed hard money estimates, design development budgets, joint venture reconciliations, cash flows and development of cost databases. Continue with the development and support of the Chief Estimator Software.

## Aecon Constructors, Vice President & Chief Estimator 2002 to 2003

Subsequent to the merger of Armbro Construction Limited and BFC Construction (Foundation Company of Canada), this group was created to pursue major international Design Build Own and Operate projects. Responsibilities included leading estimates on major International Infrastructure projects during this time period as well as bidding major heavy civil projects in the United States and Quebec. Infrastructure projects included; the Quito International Airport in Equador, valued at \$500 million, a Light Rail Transit System in Jerusalem Israel, including the operation and maintenance over a 30 year concession period, valued at \$750 million, the Nord-Sur Toll highway in Chile, an extension to the Cross Israel highway valued at \$250 million and an expansion to Bandaranaike Airport in Sri Lanka valued at \$300 million. Heavy Civil projects included the Toulnoustoc Dam (\$65 mil) and Eastmain Dam & Powerhouse (\$100 mil) for Quebec Hydro, the Napthpa Jhakri Hydro Project in India and the Sound Transit approach structures (\$45 mil) in Seattle Washington.

# Armbro Construction Limited, Vice President Estimating & Development 1999 to 2001

Responsibilities included managing the companies estimating, systems and cost control activities. During this time supervised the integration of the Estimating System with a new Job Cost Accounting System. Armbro specialized in roadwork and asphalt paving projects in the Province of Ontario. Armbro's turnover was approximately \$ 150 million per year. Successful estimates included Hwy 69 and Highway 11 in Northern Ontario valued at approximately \$ 45 million each along with several projects as part of the Hwy 407 expansion in Toronto including the 16 Mile River Crossing, Pre-cast Girder Manufacturing and Hwy 407 East Grading.



## EBC Software Distribution Inc, President & Founder 1994 to 1998

Company was founded with the goal of developing a comprehensive cost estimating system for major international infrastructure construction projects. The company offered Estimating Consulting services as well as developed Estimating Software. Responsibilities included providing estimating services along with the coordination of the software development, development of cost estimating databases, marketing, general administration of the company and the raising of seed capital and venture capital financing. During this time the company successfully developed the "EBC Chief Estimator Software" along with providing estimating services on a major design build development project in Dallas Texas and a major internationally financed sub-surface drainage project in northern India, co-funded by the World Bank and the Canadian International Development Agency.

## International Comptech Engineering Services Ltd, Managing Director, Mumbai, India 1993 to 1996

Co-founded the company with the goal of exporting engineering services from an offshore development centre in Bangalore India via the Internet. Responsibilities included mobilizing the production centre, establishing the marketing and sales effort and assisting taking the company public on the Bombay Stock exchange in India in 1994. Successful in completing a subcontract on one of the largest automated and facilities management conversion projects in the world for Bell Canada, which included the mobilization of a production facility employing over 300 people.

## Matthews Contracting Inc, Vice President and Chief Engineer 1990 to 1993

Managed the estimates for Matthew's Build, Own & Operate proposals for Terminal 3 and Terminals 1&2 at Pearson International Airport in Toronto. Also managed the companies International Design Build and Construction activities. Projects included the Left Bank Outfall Project in Pakistan (\$16 mil), a design-build Aircraft Maintenance Hanger in Iceland (\$35 mil), and establishment of a Joint Venture Construction Company in India, in partnership with Mahindra-Mahindra of Bombay India. Acted as co-Managing Director of Mahindra-Matthews.

# Matthews Contracting Inc, Vice President and Chief Estimator 1986 to 1989

Responsibilities included managing the companies estimating activities. Matthews, with a turnover over \$ 300 million, was one of Canada's largest construction and development companies involved with Airports, Transportation, Civil, Utility and Building projects.

## Pitts Engineering Construction Limited, Senior Estimator Joint Ventures 1984 to 1986

Responsibilities included estimating large international joint venture projects. Typical projects estimated included large Civil, Dam and Tunnel projects in Canada, USA and North Africa. Estimates included the Limestone Generating Station in Manitoba, the Rogers Pass Tunnel in British Columbia, Milwaukee deep sewer tunnels in USA and the Hauroub Dam in Tunisia. Key completed projects included the Light Rail Transit Stadium Station and Tunnel in Vancouver, the Rogers Pass Viaduct Project for CP Rail and the Fourth Wheel Powerhouse in Whitehorse Yukon.

# Pitts Engineering Construction Limited, Contracts Manager Western Canada 1981 to 1984

Responsibilities included bidding and providing project management for the company's construction projects in the province of Alberta and British Columbia. Reported directly to the Vice President of Western Operations. Pitts was a Heavy Civil & Marine Contractor specializing in Transportation, Hydro, Marine and Infrastructure projects. Key completed projects included the Hertitage and Glenmore LRT bridge projects, the Cemetary Hill LRT tunnel project in Calgary and the Diversion Tunnels at Dickson Dam in Alberta.



## Pitts Engineering Construction Limited, Project Engineer 1975 to 1978

Responsibilities included Project Management, Cost Control and Scheduling. Key completed projects included the Arterial Highway in St John's Newfoundland and Harbour Improvements and Dredging project in Porte Aux Basques Newfoundland.

**Project Experience Summary** 

#### **Project Management**

Old Man River Dam Alberta Environment False Creek Harbour Development Vancouver Expo Mahindra Matthews Joint Venture Mumbai, India Commercial Office Complex Matthews Group Rogers Pass Viaduct CP Rail, Revelstoke Aircraft Maintenance Hanger Iceland Concrete Intake Structure Hydro Quebec Hotel Toronto **Novotel Hotels** Pakistan Water & Power 150 Miles Subsurface Drains LRT Station & Tunnel Vancouver Light Rail Arterial Highway & Bridges **NFLD Transportation** LRT Cut & Cover Tunnel Calgary LRT

### Major Proposal & Estimate Experience

Manitoba Hydro, Winnipeg Manitoba **Dubois Spillway Estimate** Melford Marine Terminal Melford Point, Nova Scotia Nalcor Energy, Newfoundland, Canada Lower Churchill Hydro Project Port Mann Highway 1 Bridge Translink, Vancouver, Canada Rose City Parkway Infrastructure Ontario, Canada Albany River Hydro Project Ontario Power Generation, Canada Botas Gas Pipeline Government of Turkey, Istanbul, Turkey Slave River Hydro Project Trans Canada Energy, Alberta, Canada Toronto Airport Pearson Development, Toronto, Canada Napthpa Jhakri Hydro Project Himachal Pradesh, India Sea to Sky Highway Partnerships BC, British Columbia, Canada Gov't of Equador, South America Quito International Airport Forrest Kerr Powerhouse British Columbia, Canada Airport Infrastructure Saudi Arabian Airlines, Saudi Arabia Stoney Trail Highway Calgary Alberta, Canada Nord-Sur Toll Road Santiago, Chile St Francisville Cable Stay Bridge Lousiana, USA Jerusalem Light Rail Transit Jerusalem, State of Israel Limestone Generating Station Manitoba Hydro, Canada Katy Freeway Dept of Transportation, Houston, Texas, USA Cross Israel Highway (Sect 18) Government of Israel, Tel Aviv, Israel Rogers Pass Tunnel Canadian Pacific Railway, Canada Lower Mattagami Powerhouse Ontario Power Corp, Ontario, Canada Eastmain Powerhouse James Bay Quebec, Canada

#### **Computer Software**

Scheduling: Primavera P3, Microsoft Project, Tilos Linear Scheduling Estimating: IPEL Chief Estimator Software, HCSS, Harddollar

Bank of Dubai Head Office

Municipality of Dubai, United Arab Emirates