GTC Ventures Inc.

Solid/Sludge & Waste Water Management Consultants

PO Box 42033 RPO. Victoria, BC V8R 6T4 Ph: 250-208-3402 Fx: 250-386-4656 ikew@gtc-ventures.com

31 January 2007

Dwayne Kalynchuk
General Manager, Environmental Services
Capital Regional Disrtict
PO Box 1000, 625 Fisgard Street
Victoria, B.C. V8W 2S6

Dear Sir,

Re: REQUEST FOR EXPRESSION OF INTEREST REGARDING INNOVATIVE SEWAGE TREATMENT & RESOURCE RECOVERY TECHNOLOGY FOR VICTORIA , B.C. CANADA

In accordance with your REI posted on your Website, enclosed please find five (5) copies of our expression of interest for your consideration. Also enclosed is a copy of the same document in PDF format as requested.

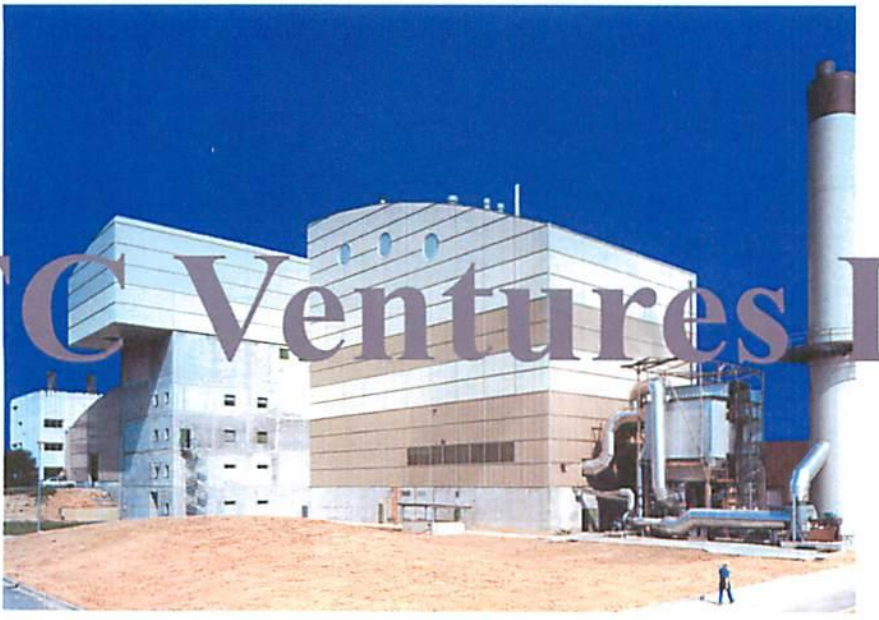
We look forward to hearing from you in due course.

Sincerely,

GTC VENTURES INC.

Irvin H. Kew, MAIBC MRAIC RIBA
Managing Director
Cell: 250-208-3402
Fax: 250-386-4656
E-mail: ikew@gtc-ventures.com

GTC Ventures Inc.



Technology by: mg engineering
Lurgi Energie und Entsorgung

Solid/Sludge & Waste Water
Management Consultants

GTC Ventures Inc.
PO BOX 42033 RPO, Victoria B.C. V8R-6T4
Ph: (250) 208-3402 Fax: (250) 386-4656

SECTION 1:
OVERVIEW & CRD MISSION STATEMENT

SECTION 2:
GTC VENTURES INC.

SECTION 3:
THE TECHNOLOGY

SECTION 4:
THE PROPOSAL

SECTION 5:
TRIPLE BOTTOM LINE APPROACH

REQUEST FOR EXPRESSION OF INTEREST REGARDING INNOVATIVE SEWAGE TREATMENT & RESOURCE RECOVERY TECHNOLOGY FOR VICTORIA, BRITISH COLUMBIA, CANADA

SECTION 1
OVERVIEW AND CRD MISSION STATEMENT

CONTENT: **SHEET:**

1.1 INTRODUCTION

The Capital Regional District (CRD) recently posted a request for expression of interest (REI) on its Website, to solicit information regarding *innovative sewage treatment and resource recovery technologies and strategies* that may be suitable for effective and sustainable treatment in processing sewage, generated by a predominately residential community of about 300,000 (initially) to 400,000 people.

1.1.1 Mission of The Capital Regional District Commission:

As identified, the CRD mission is to serve the citizens of the municipalities and electoral areas that comprise the Capital Region, by providing and coordinating selected high quality local service that clearly cannot readily be undertaken by municipalities individually for reasons of economy, effectiveness, practicality and uniformity.

1.1.2 Services CRD presently provides:

- Municipal Finance
- Health Facility Planning
- Environmental Waste Management (*)
- Recreation, Parks and Leisure Services
- Regulatory Services
- Affordable Housing
- Water Supply
- Regional Planning
- 9-1-1 Emergency response

1.1.3 Members of the Capital Regional District:

Capital Region Municipalities

- City of Victoria*
- District of Saanich*
- Township of Esquimalt*
- District of Central Saanich
- District of North Saanich
- City of Langford*
- District of Sooke
- District of Oak Bay*
- Town of Sidney
- Town of View Royal*
- City of Colwood*
- District of Highland
- District of Metchosin

Unincorporated Electoral Areas (EA)

- Juan de Fuca (EA)
- Southern Gulf Islands (EA)
- Salt Spring Island (EA)

The CRD presently operates eight (8) outfalls in its region of responsibility as follows:

- Macaulay & Clover Point; Saanich Peninsula and South Gulf Islands & Port Renfrew.

Note: (*) = Municipality with trunk sewer under the CRD or Municipal Environment Waste Management Service

1.1.4 Environment Waste Management Program:

Regarding existing waste water infrastructure in the South Island region, only seven (7) municipalities (those as marked* above) have sewer trunk lines or storm water lines provided by either the CRD or the municipality. Presently there are two (2) main outfalls, one at Clover Point and the other at Macaulay Point, where waste water effluent is fine screened and then discharged into the Juan de Fuca Strait.

1.2 BACKGROUND

1.2.1 As listed in Section 1.1 above, the CRD is responsible under Subsection 1.1.2 for liquid waste management in the Greater Victoria area of British Columbia, Canada, for their Members listed in Subsection 1.1.3. However, only seven (7) out of sixteen (16) areas are served by Municipal or CRD trunk sewer pipe or storm waste water lines. Subsection 1.1.4 identifies the two locations of the main outfalls and the level of treatment currently offered. Since fine screening is the only treatment, the discharge from these outfalls would likely contain pathogens, viruses, metals, chemicals and biological and other contaminants.

1.3 CHRONOLOGICAL HISTORY TO UPDATE LWMP PLAN

- **26 March 2003:** Former Minister of Environment, Hon. Joyce Murray approved the CRD Core Area Liquid Waste Management Plan (LWMP). The plan included a trigger process in lieu of a fixed schedule of treatment. The approved plan consists of two parts; one trigger was the monitoring of the seafloor bed (seafloor trigger) and the other was the water column (seawater trigger).

- **4 May 2004:** The Core Area LWMP Committee authorized CRD staff to negotiate with the Society of Environmental Toxicology and Chemistry North America, a nonprofit worldwide professional society (SETAC) to conduct and coordinate an independent review. The terms of reference were developed by the CRD and reviewed by the CRD Board. In the winter of **2005** a 7-person SETAC panel was appointed to conduct and manage the review.

- **12 July 2006:** The SETAC Panel submitted their Scientific and Technical Review Report. The report brought to the attention of the CRD risk factors inherent in the effluent at the outfall sites and its water column; the report also provided arguments that the CRD needs to improve the quality of its waste water effluent.

- **21 July 2006:** The current Minister of Environment, Hon. Barry Penner wrote to the CRD Board and summarizing the SETAC report together with another report from MESL commissioned by the Ministry of Environment. Based on the available CRD monitoring data, contamination was found at the two outfalls at Macaulay Point and Clover Point. This led to Macaulay Point and Clover Point receiving preliminary designation as contamination sites under the Ministry Regulations.

Notice was therefore given by the Honorable Minister Barry Penner under his Ministry's jurisdiction directing the CRD to submit for his approval an amended CRD Core Area Liquid Waste Management Plan (LWMP) detailing a fixed schedule for the provision of sewage treatment, as follows:

- CRD amended LWMP to be submitted for approval by the Ministry no later than **30 June 2007** for this year
- To provide an interim progress report on the amendment
- Progress report to outline options relating to the following items:
  - type, number and location of facilities
  - preliminary costs of treatment, and
  - proposed implementation schedule

- To ensure value for the taxpayer, the CRD was encouraged to consider the following:
  - new technology
  - alternative financing and delivery options, including the potential for private sector involvement.

1.4 REQUIREMENTS TO AMEND CRD LWMP PLAN

In order for the CRD to comply with the Minister of Environment's direction on the required identified amendments above for the LWMP and modernize the CRD liquid waste management infrastructure, the REI has listed the following preferred implementation criteria for the attention of responding proponents:

1.4.1 Preferences listed for EOI respondents:

a) That the proposed methodology shall be an *innovative* sewage treatment technology with *resource recovery* capability;
b) That the technology is *proven* and has a *track record* to be able to sustain ably treat and process sewage generated by a residential community of 300,000 (initially) to 400,000 people. (From *GTC Ventures* knowledge, examples of similar technology and size has been applied to the following projects):

- City of London Sewage Treatment, Ontario Canada
- City of Lacq Sewage Treatment, France
- City of St. Paul, Minnesota, United States

c) That the technology is *cost effective* as well as innovative and *environmentally responsive* in its function; and
d) The operation, of the process plant facility will *maximize environmental, social and economic benefits* to the community of the CRD region of Vancouver Island.

REQUEST FOR EXPRESSION OF INTEREST REGARDING INNOVATIVE SEWAGE TREATMENT & RESOURCE RECOVERY TECHNOLOGY FOR VICTORIA, BRITISH COLUMBIA, CANADA

SECTION 2
GTC VENTURES INC

CONTENT: **SHEET:**

2.1 THE COMPANY

GTC Ventures Inc. was incorporated 11 August 2006 under the Business Corporation Act in Victoria B.C. Borne out of the re-structuring of the former company of *Gryphen Technologies Inc.* a self-funded company created by a group of environmentally minded Western Canadians.

2.1.1 Experience: In early 1999, Irvin Kew, who is a practicing architect with a strong science background, was approached by the group to research innovative technologies for different forms of waste to be managed, focusing on clean air and clean energy. Irvin became interested in waste management issues and environmental concerns. He toured and researched existing waste management facilities in Germany and U.K. to examine their respective technologies for potential application in Canada. In the summer of 1999, he made contact with former associates from England with established businesses in both the recycling and solid waste management fields. Irvin helped found the solid waste management-consulting firm of *Gryphen Technologies Inc* (1999) in Victoria B.C. and was appointed to the position of Managing Director.

On March 2000, Irvin returned to Europe, to seek other modern, environmentally responsible technologies and secured a co-operation agreement with *Mg Engineering*, a technology provider in Germany with various effective technologies to manage different forms of waste. *MG Engineering* provides consulting services and turnkey treatment Plants for solid or liquid waste management processes with up-to date technology, among others, municipal purposes. *Mg Engineering* under its subsidiary *Lurgi Energie und Entsorgung GmbH* has been involved in numerous technologies consisting of 130 patents around the World, and has implemented more than 45 operating waste management processing plants.

2.1.2 Technical Expertise: *GTC Ventures Inc.* draws its technical expertise from its German colleagues who are all process plant design engineers. Irvin Kew was short-listed to participate with The Regional Niagara Municipality in their Solid Waste Management Study and forum in Ontario in the year 2002. Other invitations for services were provided to the Town of Lake Cowichan, Canadian Energy of Edmonton, followed by invitations from the City of Toronto to join their forum and also by The County of Dufferin, Ontario. Since 1999, Irvin Kew has travelled annually to Europe to update his knowledge on the latest Technologies and developments.

In the year 2003 the *Mg Group* restructured in Germany, many of their subsidiaries became independent technology providers. Irvin Kew, as the Managing Director of ***GTC Ventures Inc.*** maintained close working relationship with the key proponents of European waste management technology .

Today ***GTC Ventures Inc.*** is a waste consulting firm with access to all the former *Mg Group* contacts with different applied technologies. The company is also joined by two (2) former colleagues from Germany, namely Dirk H. Berger, Dipl-Ing and Jörg A. WeidenBörner, Dipl-Ing (TH), both members on the GTC Venture team; this team is ready to provide process plant engineering support for feasibility studies on projects, design and advises on the choice of the appropriate proven technology from Europe for application.

RESUMÉS:

- **Irvin H. Kew**
- **Dirk H. Berger**
- **Jörg A. Weidenbörner**

2.1.3 Résumé • Irvin H. Kew

Irvin Kew received his education in England UK and majored in Advanced Level Sciences in Chemistry and Physics and Applied Mathematics at the City of Westminster College, London (1964). Graduate in architecture from Thames Polytechnic, University College (1971) during which the course required him to received training in quantity surveying with the firm of Gardiner & Theobald UK. Irvin practiced in London for ten (10) years before arriving in Canada. He is registered in British Columbia, the United Kingdom and formerly in Alberta (1995-1996)

BUSINESS VENTURES:

1981 – Present: Irvin Kew • Architecture Inc.
As principal of the firm established in Victoria, B.C. Irvin provided comprehensive architectural consulting/project management services to Federal, Provincial, Municipal and Private Clients. His commissioned scope of works includes; computer application, project developments, Feasibility Studies, involving projects such as Offices, Industrial, Institutional and Transportation Buildings including Retail Stores, Restaurant Buildings/Interior Designs on major renovations and Defence building projects for Defence Construction Canada (DCC). In October 2006, he was selected recently to undertake a study to analyse the root causes on cost escalation related to the FMFCB SHOP CONSOLIDATION project at CFB Esquimalt B.C. and valued at $127,000K for DCC.

1999 – 2004: Gryphen Technologies Inc.

In early 1999, Irvin became involved with a group of Western Canadian citizens who shared an interest in waste management issues and environmental concerns. He toured and researched existing waste management facilities in Germany and U.K. to examine and compare their respective technologies for potential application in Canada. In the summer of 1999, he made contact with former associates from England with established businesses in the both the recycling and solid waste management fields. Irvin helped found the solid waste management-consulting firm of *Gryphen Technologies Inc* (1999) in Victoria B.C. and was appointed to the position of Managing Director. On March 2000, Irvin returned to Europe to seek other modern, environmentally responsible technologies and secured a co-operation agreement with *Mg Engineering*, a technology provider in Germany with various effective technologies to manage different waste streams, from solid, sludge to waste water.

2006 – Present: GTC Ventures Inc.

With the re-structuring of the *Mg Engineering* group together with *Gryphen Technologies Inc.* Irvin Kew continued with his interest of waste management technologies. In October 2006, he established the new consulting firm ***GTC Ventures Inc.*** and obtained an affiliation with two (2) process plant engineers, both former senior officers of the Mg Engineering group.

As an architect with extensive project management experience and a strong science background, Irvin has the necessary skill to act competently as facilitator, to inform and educate community groups of the need to reduce greenhouse gases and prevent global warming with today's modern innovative and proven choice of the right technology, plus to assist the design and implementation of the process plant to provide clean air and clean energy for this region of Canada.

ASSOCIATIONS AND VOLUNTRY COMMUNITY SERVICES:

In 1994, Irvin Kew was first elected to the Board of Directors of The Union Club of B.C. and in the election of 1996 he became President. During his term of office, he worked with the Club Manager and directed the revitalisation of many unused areas of existing club facilities, making it revenue generating today. He also assisted with the introduction of some of the events and club programmes for members' participation and enjoyment that had allowed the Club to flourish and maintain its profile. In his family life, Irvin is father of three children, Jason Harold, Alexander Irvin and Henrietta Faith.

The following is list of some of the associations and participation of services:

- Member — Committee member and designer – Veteran's Memorial Wall (2004-2005)
- President — Union Club of British Columbia (1996 -1997)
- Member — The Canadian Scottish Regimental Heritage Foundation (elected 1995)
- Member — Annual Fund Raiser Victoria Symphony Splash – Inner Harbour
- Chair — United Way Architects' Division (1989-1990)
- Chair — Vancouver Island Chapter of the Architectural Institute B.C. (1986 -1990)
- Director — Board of the Boys & Girls Club of Greater Victoria (1983 -1990)
- Chair — City of Victoria Advisory Design Panel (1984 -1985)
- President — Victoria China Town Care Society (1984 -1985)
- Member — Rotary Club of Victoria Harbourside (1981-1999)
  - Rotary Paul Harris Fellow
  - Director of the Board (1986 -1987)
  - Chair of Publicity/Media (1989 – 1997)

2.1.4 CURRICULUM VITAE

Name: Name:	**Dirk Berger**
Geburtsdatum: Birthday:	23. 05.1952
Familienstand: Marital status:	verheiratet married
Kinder: Children:	zwei two
Schulausbildung: School education:	Volksschule Bad Lippspringe Elementary school 1958 - 1962 Neusprachliches Gymnasium Paderborn High school 1962 - 1971
Abschluss: High school certificate:	Abitur High school leaving diploma
Wehrdienst: National duty:	Bundesmarine German Navy 1971 – 1973
Studium: University studies:	Universität Dortmund University of Dortmund Fachbereich Chemietechnik Faculty Chemical Engineering 1973 - 1978
Abschluss: University certificate:	Diplom (Dipl.-Ing.) M. Sc.
Berufserfahrung: Working experience:	KRUPP Robert Reichling & Comp. GmbH, Grevenbroich Wasseraufbereitung Water Treatment Projektingenieur Project Engineer 1978 – 1981

CURRICULUM VITAE

BABCOCK
Deutsche Babcock Anlagen AG, Krefeld
Wasseraufbereitung
Water Treatment
Projekt- und Verkaufsingenieur
Project and Sales Engineer
Abfallbehandlung
Waste Treatment
Leiter Verkauf Abfallbehandlung
Head of the Sales Department Waste Treatment
1981 – 1985

KRUPP
Krupp MaK Maschinenlau GmbH, Kiel
Umwelt-, Energie- und Verfahrenstechnik
Environment, Energy and Process Technology
Hauptreferent
Director
1985 - 1989

STEAG
STEAG Entsorgungs- GmbH, Essen
Geschäftsführer
Managing Director
1989 - 1993

RWE
R + T - Umwelt GmbH, Leipzig
Geschäftsführer
Managing Director

RWE Entsorgung Nord GmbH, Kiel
Geschäftsführer
Managing Director
1993 – 1997

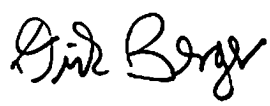
CURRICULUM VITAE

mg technologies AG
Lurgi Energie und Entsorgung GmbH,
Frankfurt/Ratingen
Geschäftsführer Vertrieb
Managing Director
1997 - 2001
Vicepresident
2001 – 2003

Beratender Ingenieur
Technical Consultant
2003 -

Fremdsprachen: englisch
Languages: english

Essen, 02. Oktober 2003



Curriculum Vitae

Personal Data

Name:	Jörg Achim Weidenbörner
Date of Birth:	31.10.1966
Nationality:	German
Marital Status:	married / 2 Children
Work permits:	U.S. Greencard holder

Education

1973 – 1977	Visit of the elementary school Kettwig
1977 – 1987	Visit of the Theodor – Heuss – Grammar School Kettwig.
1987 – 1989	Alternative national service at the Malteser – Hilfsdienst Hösel. Education and employment as paramedic.
1989 – 1996	Study of mechanical engineering, subject energy and processing engineering at the GHS Essen Degree: Diplom – Ingenieur (TH)

References / Carried out works / Activities

1990 – 1996	Work as temporary help for the Axel Springer Publishing Company in Kettwig (student job)
1993 – 1996	Enrolment of a trade licence for carrying out engineering works.

Activities for the TechPro Ingenieursoftware, Essen:

- Assistance for developing and maintenance of engineering software for thermodynamical and fluid dynamical calculations

1993 - 1996

- Thermodynamic calculations of network systems.
- Pressure loss calculations of network systems.
- Check (recalculation) of components as pumps, heat exchangers, silencers, etc.)
- Study of using the potential energy of freshwater for pumping ground water out of mines.

Activities for hassdenteufel & teutsch Ingenieurgesellschaft bR, Essen:

Working in the project team „Atomic Interstratification North", Greifswald

- Calculation of the air and vent system
- Room and layout planning for piping and cables
- Assistant of the project management

System engineering for the pipe planning for the FGD of the waste incineration plant MKVA Krefeld.

Lead engineer of the project team „ BRW 2000"
(EPC contract with a value of 25m €, not activated)

- Creating a concept for the reuse of tires by using new incineration technologies
- Dimensioning of plant components
- Design of inquiry specifications for B and C type components
- Creating of project databases
- Technical and economical comparison of the given quotations
- Participation at technical and economical negotiations
- Assistant of the management
- Cost calculation and settlement of the project according to the German HOAI
- Preparation of technical and general project documents for legal use / suit reasoning

1996

Start of working as a freelancer.

Project engineer in the project „Waste Incineration Plant Moscow" of Chema Balcke – Dürr, Rudisleben (EPC contract with a value of 50m €)

- Supporting activities for the project managment
- Design check of components
- Preparation of purchase order for components (comparisons of bids, negotiations)

1996 – 1997

Activities on the field of waste incineration for Chema Balcke – Dürr, Rudisleben:
(Engineering contract 450k €)

- Creation of a concept for a waste utilisation plant (mechanical – biological treatment with down-stream incineration) by using new technologies
- Presentation of the concept at several prospective buyers
- Set up of business plans for the realisation of the concept in states of the RF (Uzbekistan, Kirgistan, Russia)
- Representation of several financing concepts
- Contract layout for the selling of plants into the RF
- Calculation of the overall plant price
- Valuation of the possible services rendered for own account by the client
- Participation at contract negotiations
- Reporting to the management
- Cost control of the acquisition activities
- Concept design for the conversion of a depart-ment
- Concept design for the waste treatment in the countries of Dominican Republic, Trinidad and Tobago, Spain, Slovenia.

1997

Activities for Balcke Dürr AG, Ratingen:

- Thermodynamic calculation for the PP "Niederaußem", Germany
- Thermodynamic calculation for the PP "Lippendorf", Germany
- Study of the thermodynamic basics for calculating lengthwise flown heat exchangers

1998

Resumption of activities in the field of software programming (Y2K)

Activities for hassdenteufel & teutsch Ingenieurgesellschaft bR, Essen:

Project Power Plant "ESSAR OIL", India
(Engineering contract with a value of 500k €)

- Projectmanagement
- Claim -Management
- Planning of the BOP Piping
- Support design for the planed pipelines

Activities for Lurgi Lentjes Bischoff, Essen:

Project FGD "Lippendorf", Germany
(Engineering contract with a value of 100k €)

- Generation and co-ordination of the final documentation

1999

Activities for hassdenteufel & teutsch Ingenieurgesellschaft bR, Essen:

Project "Refinery Ceska" (Heat Recovering System), Tchechia
(EP contract with a value of 150k €)

- Project management
- Claim -Management
- P&I -D - Design
- Listening / programming of needed data bases
- Planning of the Piping for the flue gas heat exchanger
- Support design for the planed pipelines

Project "Renewing of the Phenol and Caustic Soda storage" for Akzo Nobel, Braunschweig
(EP contract with a value of 200k €)

- Project managment
- P&I -D – Design for the energy and chemical supply of the plant
- Design of inquiry specifications
- Negotiations with the chosen sub suppliers
- Piping and arrangement planing

1999

Activities for Lurgi Lentjes Bischoff, Essen:

Project Documentation of the FGD´s for the TEAS PP´s "Yatagan" and "Yeniköy", Turkey
(Engineering contract with a value of 100k €)

- Co-ordination meetings with TEAS in turkey to discuss the layout of the documentation
- Co-ordination of the sub suppliers of the documentation preparation
- Creating of a 100% electronically documentation

2000

Activities for hassdenteufel & teutsch Ingenieurgesellschaft bR, Essen:

Project "Refinery Ceska", Tchechia

- Check of the prefabrication at Sefako, Poland
- Creating of an erection concept for the piping system

Project „Renewing of the stirring system of the resin production" for Akzo Nobel, Braunschweig
(EPC contract with a value of 300k €)

- Project management
- P&I -D – Design for the energy and chemical supply of the plant
- Co-ordination of the needed calculation
- Design of inquiry specifications
- Negotiations with the chosen sub suppliers

Project „PPC PP Komotini, Greece"

- Technical Project management
- Check of the isometric drawings for the prefabrication
- Calculation of the needed material for ordering
- Claim Management

2001

Project „PPC PP Komotini, Greece"

- Creating of an erection concept for the piping system

Activities for ICS-Planet:

- Consultant for the design and technical contents of an internet portal for the procurement of technical equipement

Activities in Canada for
Lurgi Lentjes Bischoff Cambridge
Project „SCR Plant, Meerom Power Station, Hoosier/Indiana"
(EPC contract with a value of 50 million US$)

- Reviewing and redesigning of the basic engineering/ P&I-Diagrams
- Set up of a database for controlling the technical information as valvelist, pipelist, list of interface points, instrumentlist and I/O-list
- Set up of a database for the project control and management
- Set up of a database for document control (drawings, correspondence, document transmittals, etc.)
- Creating the specifications for the sootblower system, cranes and hoists, pipes, valves, cinder crusher, catalyst loading system, catalyst sealing system, ammonia storage area / -pump station and vaporizer
- Calculation of the pressure drop across the ammonia injection grid
- Design of the seal air and lay-up air system for the catalyst during bypass operation
- Calculation of the over-/under pressure flap for the absorber of the "FGD Dallman Station, Springfield, Illinois"

2002

Activities in Canada for
Lurgi Lentjes Bischoff Cambridge
Project „SCR Plant, Meerom Power Station, Hoosier/Indiana"
(EPC contract with a value of 50 million US$)

- Check of the general arrangement plans
- Detail engineering of the pipe routing
- Design of the ammonia injection grid
- Set up of datasheets for valves, pumps, heat exchangers and blowers
- Update of the project control database for expediting purposes
- Re-design of the seal air system for the "FGD Dallman Station, Springfield, Illinois"

2002 - 2003

Activities for EMS Inventa-Fischer
Project „DuBay PBT-Anlage 80kt/a"
as Construction Engineer / Assistant Construction Manager
(EPC contract with a value of 50 million €)

- Creating and editing of several specifications
- Contract Negotiations with the chosen sub suppliers
- Supervision of the construction activities for civil construction, steel structure, equipment and piping erection
- Installation of Equipment (design of erection concepts, crane studies, etc.)
- Redesign of pipe routing, steel structure, cable trays.
- Scheduling of the construction progress with self created schedules.
- Acceptance inspection of civil structures, steelwork, equipment installation, pipe installation, etc.
- Set up of a database for the construction coordination / project management (Construction Order, Construction walks, LOP, minutes of meetings, etc.)
- Set up of a database for document control (drawings, correspondence, document transmittals, etc.)

2003

Activities for EMS Inventa-Fischer
Project „DuBay PBT-Anlage 80kt/a"
as Construction Engineer / Deputy Construction Manager
(EPC contract with a value of 50 million €)

- Set up of a database for equipment, valves, pipelines, erection releases, erection processes
- Set up of a database for the site store management (In an outgoing parts/equipment, failure reports, order checks, etc.)
- Set up of an database for the claim management and persecution
- Claim management
- Preparing and supervision of pressure tests (gas and liquid) according to German standards
- Commissioning of the plant
- Preparation of the final documentation

2004 – ongoing

Activities for Lurgi Lentjes AG
Project „Integrated Waste Management Facility Allington / U.K." (Waste Incineration Plant (500.000 t/a) incl. Material Recovery Facility (50.000 t/a)
(EPC contract with a value of 170 million €)

- Team Leader and deputy project manager
- Creation of specifications, quote comparison incl. technical evaluation, supplier negotiations and processing of orders for:
  - Material Recovery Facility (shredder, belt conveyors, ferrous and non-ferrous separators, sieves/screens, sorting cabin, etc.)
  - Cranes
  - Steam Turbine Unit with Generator Set
  - Air Cooled Condenser incl. Main Condensate System and Evacuation System
  - SNCR-System
  - - Pipe System (supporting specification development, supplier negotiations)
  - Fabric filter and electrostatic precipitator (supporting specification development, supplier negotiations)
  - fire fighting system (for process equipment)

2.2 OUR CRITICAL PARTNERS

In that this REI is at the expression of interest phase (Stage 1.) the project scope has yet to be defined together with research studies and other steps that will be necessary to meet with a Project Scheduled Timeline (PST). Seeing that the next phase (Stage 2.) for the CRD entails the evaluation process to identify serious proponents to go forward; we have therefore assembled our project response team to address Stage 2. should *GTC Ventures Inc.* be considered for the next phase. Appendix A. following this page contains Letters of Intent for Subsection 2.2.1 to 2.2.2.

2.2.1 Financing: HSBC Bank of Canada + HSBC Securities Canada Inc.

To assist with the Project financing at different phases of the development, *GTC Ventures Inc.* have selected and secured the participation and interest of *HSBC Bank of Canada* the world's second largest International Banker. In addressing the position of a potential Public Private Partnership option for the Project, we have selected *HSBC Securities Canada* an International Securities organization with the capacity to raise capital. The representative of each Division are:

- **HSBC Bank of Canada:** Brian J.Rogers, Assistant Vice President & Branch Manager
- **HSBC Securities Canada:** Jeff Allsop, Director Investment Banking
- **HSBC Securities Canada:** Michael Cochran, Senior Investment Advisor

2.2.2 Legal Service: Jawl & Bundon

- **Legal Counsel:** R.C. (Tino) Di Bella, will represent *GTC Ventures Inc.* on all contact matters dealing with the legal aspect of this Project.

2.2.3 Technology Providers:

- **Provider 1: Envirotherm GmbH:** through its founder Dr. G. Daradimos, developed the technology of thermal oxidation of sewage sludge in fluidized beds. He was formerly Head of the *Mg Engineering group* in the *Lurgi Lentjes* division.
- **Provider 2: e•on Engineering:** main specialty in desulphurization and detoxification treatment process technology for flue-gas.
- **Provider 3: AE•E–Von Roll:** bubbling thermal fludized bed reactors technology for specific waste feedstock.
- **Provider 4: BAMAG GMBH:** specialist in water treatment engineering with technologies to treat raw sewage water to create potable water. The company is formerly a subsidiary of *Mg Engineering* under *Lurgi Energie und Entsorgung.*

Note: Upon request and after the CRD evaluation process, Letters of Intent of Technology Providers to *GTC* will be available if *GTC Ventures Inc.* is selected to proceed to the next stage.

APPENDIX A: LETTERS OF INTENT

- **HSBC Bank Canada**
- **HSBC Securities (Canada) Inc.**
- **Jawl & Bundon**

HSBC

Brian J. Rogers
Assistant Vice President and Branch Manager

25 October 2006

Irvin Kew Architecture Inc.
2660 Shady Lane
Victoria, BC V8R 1R6

Attention: Mr. Irvin Kew

Dear Sir:

Further to our meeting last week, I confirm that the Bank is interested in your waste management concept for Victoria and we are receptive to progressing the financing discussion for your concept. I anticipate that the financing would represent a blend of both public and private funding, with HSBC interested in bidding on the private equity and debt components.

I would like for us to get together in the near future to review budgets, cash flow projections, etc. Should you have any questions, please feel free to contact me directly.

Regards,

Brian J Rogers MBA CFA
Assistant Vice President and Branch Manager

HSBC Bank Canada
Suite 100 – 771 Vernon Avenue, Victoria, B.C. V8X 5A7
Tel: (250) 405-7161 Fax: (250) 405-7196, (250) 405-7199

HSBC

Irvin Kew Architecture Inc.
2660 Shady Lane
Victoria, BC V8R 1R6

January 25, 2007

Dear Sir:

We understand that your company; GTC Ventures Inc. will be submitting a expression of interest (EOI) regarding innovative sewage treatment and resource recovery technology for the Capital Regional District (CRD), in the very near future.

We wish to confirm that the Bank is interested in your waste management concept for Victoria. We are receptive to progressing all financial conditions relating to GTC Ventures Inc. EOI.

As the second largest financial institution worldwide, HSBC is ideally suited to be your primary and lead financial advisor. At the local level HSBC Bank (Canada) Inc. confirms a willingness to act as such.

Regards,

Brian Rogers
Assistant Vice President and Branch Manager

HSBC Securities (Canada) Inc.
#102 - 771 Vernon Ave., Victoria, BC V8X 5A7
Tel: (250) 953-5050 Fax: (250) 953-5099
Toll Free: 1 (888) 391-9311

HSBC

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2660 Shady Lane
Victoria, BC V8R 1R6

January 25, 2007

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We wish to confirm that HSBC Securities (Canada) Inc. is interested in your waste management concept for Victoria. We are receptive to progressing the financial conditions relating to GTC Ventures Inc. EOI

In particular, we possess expertise in structuring Public Private Partnerships (P3) and we have had previous experience in the Province of British Columbia with this type of financial instrument.

As the second largest financial institution worldwide, HSBC is ideally suited to be your primary advisor. At HSBC Securities (Canada) Inc, the Investment Banking Department is willing to act on your behalf.

Regards,

Jeff Allsop
Director Investment Banking
HSBC Securities (Canada) Inc.
4th Floor 70 York Street
Toronto, ON
M5J 1S9

HSBC Securities (Canada) Inc.
#102 - 771 Vernon Ave., Victoria, BC V8X 5A7
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As the second largest financial institution worldwide, HSBC is ideally suited to be your primary financial advisor. At HSBC Securities (Canada) Inc, the Investment Banking Department is willing to act as financial advisors on your behalf.

Regards,

Michael Cochran
Senior Investment Advisor

HSBC Securities (Canada) Inc.
#102 - 771 Vernon Ave., Victoria, BC V8X 5A7
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FRANK D. CORBETT*
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MOHAN S. JAWL. Q.C.†
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† Denotes Law Corporation
**Denotes Civil Mediator*
Denotes Trade-Mark Agent

JAWL & BUNDON
BARRISTERS & SOLICITORS

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V8V 3K5

TELEPHONE
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(250)385-4364

R. C. DI BELLA EMAIL
rcdibella@jawlandbundon.com

Our File: 24315-000 RCD

January 31, 2007

GTC Ventures Inc.
PO BOX 42033 RPO
2200 Oak Bay Avenue
Victoria, BC, V8R 6T4

Attention: Irvin Kew

Dear Sirs/Mesdames:

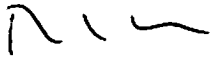
Re: Request for Expression of Interest (REI) to the Capital Regional District (CRD) Regarding Innovative Sewage Treatment and Resource Recovery Technology for Victoria B.C.

I act as general counsel to GTC Ventures Inc. The managing director of GTC Ventures Inc. is Irvin Kew.

I have assisted GTC Ventures Inc. to prepare its EOI to the CRD. If GTC Ventures Inc. is selected to proceed further with its EOI to the CRD, I have been retained to assist GTC Ventures Inc. in its contract negotiations with the CRD and others.

Yours truly,

JAWL & BUNDON
Per:



R.C. (Tino) Di Bella
RCD/
321263

REQUEST FOR EXPRESSION OF INTEREST REGARDING INNOVATIVE SEWAGE TREATMENT & RESOURCE RECOVERY TECHNOLOGY FOR VICTORIA, BRITISH COLUMBIA, CANADA

SECTION 3
THE TECHNOLOGY

CONTENT: **SHEET:**

3.1 THE TECHNOLOGY

The REI provided by the CRD identified that there are two (2) main components to the resolution of the issues that the Honourable Minister Barry Penner has directed, before British Columbia will meet its one-third funding commitment as well as to meet with the requirements of Ministry of Environment Standards. The first is treatment of the raw sewage liquid to separate the large particles from the sewage waste water and then separate the sludge from the liquid; the second is identify proven technology to treat the contaminated waste water and the sludge after separation. The Federal Government having announced a similar funding opportunity will also have expectations before any funding is forthcoming. Therefore there is a need to identify the responsibility of each level of government.

3.1.1 Responsibilities of the levels of Government:

- ***Federal:*** *The federal government is committed to pollution prevention and sustainable development principles which seek to integrate economic and environmental considerations into decision-making.* Presently they are supporting and will endorse fully integrated made in Canada waste management strategy and comprehensive planning for waste disposal. During the last election in 2006, the present federal government made a promise to fund such schemes upon application of proven technology for Vancouver Island to replace sewage ocean-discharge methodology. The Federal Minister of Environment, Hon. Rona Ambrose, also confirmed the made in Canada principle for support funding.

- ***Provincial:*** *British Columba is responsible for the sitting, design, licensing and monitoring of disposal and treatment facilities.* The latest announcement by the Provincial Environment Minister Barry Penner directing the CRD to utilize such disposal and treatment system to avoid ocean discharge means that the CRD will have only one year to present the Minister with its recommended solution.

- ***Municipal:*** *Our local municipal government and CRD is charged with the responsibility for collection of waste and disposal.* In terms of sewage waste, the laying of underground collection pipes for domestic, commercial and institutional waste is the responsibility of each member municipality. The disposal of sewage waste is however the responsibility of the CRD, which in Victoria comprises of 13 municipal members and the electoral areas of 1 large rural district and 2 Gulf islands; a total of sixteen (16) areas to be serviced.

In order to help modernize the CRD's Sewage Treatment Facility, proponents will need to demonstrate and respond to the requirements of each level of the government's separate needs to gain their support for funding.

3.1.2 Modern Innovative Sewage Sludge Thermal Plants:

Approximately thirty years ago, Europe commenced to treat sewage clinically in process plants to avoid the use of open filtration beds, thus removing the potential hazard of fecal virus infection and the spread of diseases in human and animals. Much research was done on the use of controlled thermal oxidation or gasification process plant technologies. These technologies can dispose of 99 % of sludge by volume and the following benefits are derived:

- Heat energy recovered in the disposal process can provide power energy to be sold
- Solid domestic/contaminate industrial waste could be added as feedstock to eliminate landfill
- Other refuse derived fuel (RDF) waste of all description could also be added for disposal
- The residual heat can also be recycled for district heating within the community

3.1.3 The three (3) main stages of Modern Sewage Process Plant:

- *Upstream Treatment:* The delivery of the raw sewage to the plant for treatment and separation of the solid/sludge and water by mechanical means. Fabric presses or centrifugal pumps, dewaters the sewage sludge; the separated sludge and soil water are transferred separately to holding tanks for further treatment

- *Island Thermal Reactor:* The sewage sludge is thickened and transferred to the thermal the reactor, where it is thermally oxidized in a fluidized bed and the noxious gases are neutralized

- *Downstream Treatment:* The neutralized flue-gas detoxification process takes place and desulphurization/denitrification occurs, and where airborne fine particulates are filtered. The final emission is mainly steam with an amount of flue-gas that will meet provincial environmental standards.

3.1.4 Resource Recovery: The steam energy produced by the water-cooled Thermal Reactor can be used to drive a turbine, to provide electrical power for the plant's consumption and any surplus sold to BC Hydro for distribution. Residual heat could also be used for district heating in nearby Public or Community facilities without further reliance on public utility energy. Without doubt this technology fits into the federal and provincial government requirements for funding support. Seeing that the final choice of the technology plus the process plant is a purpose design facility to fit the feedstock and its volume, it is strongly suggested that the successful proponent should undertake a feasibility study prior to confirmation of choice of the appropriate technology.

3.1.5 Waste Water Treatment: The waste water having been de-sludged, screened to removed solids, degreased and filtered, will then be de-contaminated for metals, chemicals, pathogen, viruses, parasites and other contaminants. For the liquid biological decontamination, the process usually involves aeration with ozone and then passing the water through radiation UV lamps; finally the treated water is held in settling ponds to further allow precipitation of fine particulates to the bottom of the receptacle. The final cleaned waste water stream is then finally discharged wherever its use is best applicable for reuse.

REQUEST FOR EXPRESSION OF INTEREST REGARDING INNOVATIVE SEWAGE TREATMENT & RESOURCE RECOVERY TECHNOLOGY FOR VICTORIA, BRITISH COLUMBIA, CANADA

SECTION 4
THE PROPOSAL

CONTENT: **SHEET:**

4.1 INTRODUCTION OF PROPOSAL

The extent of our expertise and capabilities together with the resources we have introduced in Section 2 of this EOI, has given *GTC Ventures Inc.* much flexibility to structure a Multi-Level Raw Sewage Treatment Facility to meet with the requirements of the Honourable, Minister Barry Penner. His direction to the CRD to adopting a Triple Bottom Approach in the choice of their final selection of the technologies is within the mandate of his government. The benefits potential of modern Innovative Waste Technology has been briefly summarized in Section 3.

By using the ***4-R's Principle*** to ***Reduce, Recycle, Reuse*** and ***Recover***, additional benefits could be gained in our Community in many directions and as follows:

- Applying the 4-R principle would result in the reduction of waste and land-fill practices, thereby reducing Methane greenhouse-gas emissions
- Recycling waste to produce energy or new materials will create additional employment
- Reusing our waste in an innovative manner to create energy would reduce our dependency on fossil fuel
- Recovery of materials and energy will provide better use of our natural resources and produce a cleaner energy source.

The application and utilization of the chosen Technology could bring about these benefits.

4.1.2 Proposed Facility: To support the ideal design criteria above and to bring about the mentioned benefits, the Facility will be designed to include the following:

- ***Waste Water Process Plant*** that would provide Primary, Secondary and Tertiary treatment. The quality of water so produced would be reusable and sold to commercial or private sector entities where large quantities of water consumption are necessary (examples as: Nurseries, Farms, Golf Courses, Commercial Gardens in the Tourism Industry, Mechanical Vehicle Cleaning Facilities etc).

- ***Thermal Sewage Treatment Plant*** to oxidize the thicken sludge in a fludized bed. The reactor will also be designed to accept other contaminated waste feedstock that is presently land-filled to increase the calorific value of the feed stock for electricity production. The contaminants produced in the reactor will be neutralized and the flue-gas will be conducted through a detoxification process plus dust precipitators, before final discharge through the flue-tower.

- ***Energy Recovery*** will be achieved by the reactor's cooling water which is in the form of steam. The steam will be utilized to drive a steam turbine to create electricity for the Process Plant's operation; surplus electricity will be sold to B.C. Hydro.

- ***Additional heat Energy*** produced by the exhausted steam from the turbine will be used for district heating of air and water for industrial, commercial, municipal or residential use.

4.1.3 Offer of Service & Financial Proposal: In that this REI is at the preliminary phase, *GTC Ventures Inc.* would like to outline in general terms our Services and Financial position with this Project as follows:

- ***GTC Ventures Inc.*** **(*GTC*)** proposes to Design, Build, Finance, Operate and Maintain (DBFO/M) the established Technology, through a long-term agreement with the PROVINCE of B.C. in conjunction with the CRD.

- GTC proposes to adopt Minister Barry Penner's direction and enter into a Public Private Partnership (P3) agreement with British Columbia, CRD and GTC Ventures Inc. as the most suitable method of financing the new design and upgrading of the CRD's Sewage Treatment facilities.

- GTC will finance the Design and Build (DB) all plant(s) and plant infrastructure within a timeline as agreed to by all parties.

- GTC will finance the operation and maintenance (O/M) of the infrastructure and process plant(s) over the long term as agreed to by all parties.

- GTC understands that the CRD and/or the Province of British Columbia will own the physical capital of this project. GTC reserves the right to apply to the Canada Revenue Agency (CRA) to depreciate capital costs as if GTC Ventures Inc. were the owner of the plant(s).

- GTC understands that verbal commitments to participate financially in the project have been given by both the Federal and B.C. Provincial governments.

- GTC accepts the capital cost risks of the project over the full term of the agreement. These costs include a return on capital and return of capital, repairs and replacements, labour costs and overhead. GTC will pay for any cost overruns and retain any cost savings.

- British Columbia and/or the CRD will pay GTC Ventures Inc. a monthly performance payment, over the life of the agreement, based on fixed capital costs and an array of variable costs, yet to be defined.

- GTC Ventures Inc. retains the services of HSBC Bank (Canada) Inc. and HSBC Securities (Canada) Inc. as financial advisors to their bid on this project. These two financial advisors have the capacity to provide to provide equity and/or debt capitalization. Their willingness to do so is evidenced elsewhere in this submission.

REQUEST FOR EXPRESSION OF INTEREST REGARDING INNOVATIVE SEWAGE TREATMENT & RESOURCE RECOVERY TECHNOLOGY FOR VICTORIA, BRITISH COLUMBIA, CANADA

SECTION 5
TRIPLE BOTTOM LINE APPROACH

CONTENT: **SHEET:**

5.1 TRIPLE BOTTOM LINE APPROACH

As directed by the Minister of Environment, Honourable Barry Penner, the final objective identified in Section 1. Subsection 1.4.1 (d) of this EOI is that the choice of technology and operation of the resultant project process facility has to perform in such manner as to provide benefits to the Community. We believe that the following benefit will result in the adoption of new innovative sewage treatment technology as follows:

5.1.1 Maximum Environmental Benefits:

By adopting a modern innovative methodology of sewage waste management, the environmental benefits to the community are:

- That the contaminants existing in the sewage waste are removed and rendered harmless to humans and animals as well as the eco-system. The final discharge back into the eco-system allows the water quality to be significantly improved. Negative effects on either sea life or maritime activities, i.e. fishing, boating, diving etc, are reduced to virtually zero.
- That the treatment process of the contaminated sludge will be removed clinically without utilizing the practice of land-filling, a practice now totally abandoned in Europe for the last 30 years for reasons already profiled in Section 3 under subsection 3.1.2

5.1.2 Social Benefits:

In changing the modus operandi of Victoria's sewage treatment operation and updating it; there will be new employment opportunities in different directions, as folloew:

- Existing labour force in waste management facilities could be retrained to manage the new sewage waste process plant.
- Additionally, young recruits with science and environmental University training will be able to receive supplemental orientation plus training to help run a facility that needs to be operated 24 hrs daily. Personnel will receive employment in shifts to maintain the facility on a continual basis. The number of shifts required will determine the size of the work force.

5.1.3 Economic Benefits:

By adopting this new approach to solving what has been a stigma for this region, we can demonstrate to the rest of the world that the CRD region is equal or better than our cousins in the developed World. The wave of interest in this region of Victoria will multiply in the following manner:

- Increase of tourism activities from Europe and Asia
- Benefit to the Hospitality Industry (HI)
- More employment in the HI Industry
- Spin-off in other businesses from an increase influx of Visitors

Finally, economic benefits arise from the fact that *energy* is being recovered *from waste* and *electricity* is *generated* whilst the *waste is clinically removed by thermal reduction* all in one process. *Residual heat energy* could also be *recycled* for district heating or piped to nearby commercial, industrial or residential areas in the region for use.