

**QULLIQ ENERGY CORPORATION**  
**CORPORATE PLAN**  
**2007-2008**



## **1.0 INTRODUCTION**

Qulliq Energy Corporation (QEC) is a Crown Corporation owned 100% by the Government of Nunavut (GN). The corporation was originally established in 2001 as Nunavut Power Corporation (NPC) under the Nunavut Power Utilities Act. It was renamed Qulliq Energy Corporation and the Nunavut Power Utilities Act was renamed the Qulliq Energy Corporation Act as the result of legislation passed in March 2003 which also broadened the corporation's mandate to respond to a range of energy use and conservation issues in Nunavut.

Qulliq Energy Corporation operates several divisions, some using registered trade names "Nunavut Power" "Qulliq Energy" and "Nunavut Energy Centre". These are not separate corporations. They all share the same reporting structure and Board. The Corporation also has a registered trade name "Qulliq Fuel" which is not currently in use.

Nunavut Power generates and distributes electrical power to Nunavummiut through the operation of twenty-seven (27) diesel generation plants in 25 communities, provides mechanical, electrical and line maintenance from three regional centers, and administers Nunavut Power's billings and the Corporation's human resource and financial activities from offices in Baker Lake.

Qulliq Energy attends to the overall objects provided by legislation, supports the Minister of Energy on intergovernmental issues, has the mandate to manage the capital projects of the corporation, and respond to issues of alternative generation sources.

Nunavut Energy Centre is our newest division, having started to operate in 2005-06. The NEC is taking up the energy conservation mandate for Nunavut, working with individuals, community governments, businesses and non-governmental organizations to identify and evaluate and support the implementation of energy efficiency projects.

## 1.1 Vision

From its inception in 2001 the Corporation's **Vision** Statement has been:

*Powering Nunavummiut into the Future ... Today*

*Powering* represents our core business and the Corporation's role of ensuring the availability of a reliable, safe and sufficient supply of electricity, empowering all Nunavummiut and all other stakeholders to grow the residential, commercial and industrial infrastructure of Nunavut.

*Nunavummiut* represents the people and the unique culture embodied in Nunavut.

*Into the Future ... Today* means evolving in anticipation of the needs of tomorrow while meeting Nunavummiut needs today.

## 1.2 Mission

The Corporation's **Mission** Statement is:

*Qulliq Energy Corporation is committed to supplying safe, reliable and efficient energy through responsive and respectful interaction with all stakeholders.*

## 1.3 Values

The **Values** included within the Mission Statement are:

*Safety* is and will continue to be the Corporation's first priority. This fact is communicated to the Corporation's employees clearly and consistently.

*Reliability* is second only to safety. The focus of the Corporation's day to day operations is the provision of safe and reliable service to customers.

*Efficiency* is applicable to all of the Corporation's operational and administrative activities. Efficiency indicates the Corporation's intention to respect the investment made by the people of Nunavut in the Corporation, and to use resources with clear attention to reasonableness and value.

*Responsive and Respectful* guides the Corporation's actions and interaction with all stakeholders, of which there are many. The stakeholders integral to our core business are our customers, the communities we live in, and the long term goals of our shareholder.

## 1.4 Logo

The Corporation's logo, adapted from the Nunavut Power logo unveiled by the Board of Directors in March 2001, was the winning design chosen from over 200 submissions by Nunavut students. The logo is a symbol that incorporates one of the most traditional of all Inuit tools, the qulliq.



The symbolism of the qulliq is clear and even more so now with the change in the Corporation's name. The means of providing heat and light in the 21st century may have changed, but the importance has not diminished.

The Nunavut Power logo continues to be used for electrical generating activities and the Nunavut Energy Centre Logo appears on materials and buildings engaged in the Corporation's conservation mandate.



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## **2.0 ENVIRONMENTAL SCAN AND CRITICAL ISSUES**

### **2.1 Environmental Scan**

Qulliq Energy Corporation operates within a broad spectrum of social, political, geographical, environmental and economic conditions specific to the unique challenges of generating and distributing electricity in Nunavut.

#### **2.1.1 Social**

Nunavut is a young jurisdiction with a youthful and growing population of approximately 29,000, situated in 25 widely separated communities. The largest communities have 3 to 6 thousand people, the smallest have several hundred. While employed Nunavummiut are typically well remunerated, wage-economy opportunities and economic activity in Nunavut are limited.

The Corporation operates within the context of an 85% Inuit population, and the framework built by the Nunavut Land Claims Agreement. In particular, the Corporation works to implement Article 23 of the Agreement which requires efforts to create a representative public service, and Article 24 which sets up a procurement preference for Inuit, Nunavut and Local contractors.

#### **2.1.2 Political**

The corporation's sole shareholder is also its largest customer, its largest supplier, its ultimate regulator and the source of consumer subsidy regimes. The Government of Nunavut and the Minister of Energy play a very significant role in the Corporation's activities.

The Board of the Corporation is appointed by the Minister of Energy and Qulliq Energy must apply to the Utility Rates Review Council (URRC) for rate changes.

The Utility Rates Review Council is created by an act of the same name. Its purpose is to make rate recommendations to the responsible Minister. The responsible Minister determines whether he wishes to implement the regulator's recommendation, the Corporation's request, or wishes to instruct that the process begin again.

During the year 2006-07 the Minister provided to the corporation a second Instruction Letter, tabled in the Legislative Assembly and is reproduced in Appendix "E" of this Business Plan. It was intended that the letter provide direction to the Chair and Board in identifying the shareholder's primary concerns.

The Government of Nunavut also delivered its mandate statement for the second term in the document "Pinasuaqtavut 2004-09". The corporation has been assigned the lead role in responding to the goal enunciated for this five year period to *"conserve and reduce the use of energy and find alternatives to diesel fuel for electricity generation."* More detail in relation to Qulliq Energy's role in the work identified by the GN is provided in Appendix "D".

The corporation will continue to work to build its relationship with its shareholder, providing regular reporting to the Crown Agency Council. Connections within the GN, to the Energy Secretariat in Executive and Intergovernmental Affairs and to the Departments of the Environment and Economic Development are being built through regular discussions and communication.

### **2.1.3 Rate Regulation Activity**

In August 2004 QEC submitted a General Rate Application for URRC review. The Board of Qulliq Energy advanced a territorial rate in that application, suggesting that Nunavummiut share the costs of providing electricity as a basic service. This would have resulted in significant price increases in some centers, including Iqaluit, and a re-balancing of rates in others.

Public hearings did not generate widespread support for this proposal. The resulting URRC recommendations came after a stormy few weeks in which hearings were held in many Nunavut communities and considerable controversy was generated over the corporation's revenue needs, the impacts of price increases on an energy-dependent economy and operational approaches of the corporation.

The base rate increase of April 1, 2005 was acknowledged by the regulator and all involved as not being adequate to cover the operating costs of Qulliq Energy, nor providing a rate of return on equity (at 9.6% as provided in the Instruction) which would permit the corporation a healthy rate of capital re-investment in its plant and equipment.

In September 2005 the URRC provided the Minister of Energy with recommendations to re-balance the community rates as they impacted on consumers in Whale Cove and Kimmirut, and the Minister provided a similar instruction to the corporation, effective November 1, 2005.

The corporation participated in an External Review of its processes and approaches which was made public in February 2006 and was part of a subsequent application to the URRC in April 2006 which led to both a revenue increase of 5.44% effective October 1, 2006 and a URRC initiated proposal that the inadequate return of the past 18 months (in the total value of \$5.16M) be repaid by the government rather than consumers.

Following fuel re-supply in the summer of 2005, Qulliq Energy Corporation made an application for a fuel rider to cover the increasing costs of fossil fuel. This rider was implemented in November 2005 at 3.98 cents per kWh and continued for one year.

The re-supply of 2006 brought fuel at greater prices and Qulliq Energy Corporation applied for and received a fuel stabilization rider of 7.87 cents per kWh up to March 2007. This rider effectively dealt with a deficit of approximately \$800K incurred in fuel sales from July 2006 to the implementation date of the new FSR in November 2006.



In April 2007 in FSR was adjusted downwards slightly to 6.65 due to lower fuel costs in the final shipments of 2006 and a positive balance in the stabilization fund at March 31, 2007. Fuel prices are internationally driven and therefore predictions are always at risk, but it appears at this point that re-supply in 2007 may lead to slightly less expensive fuel and a correspondingly lower rider.

QEC is currently working with the Petroleum Products Division of the Government of Nunavut to develop and improve documentation on risk transfer, fuel specification, expedited pricing information and de-linking of QEC fuel process from public pricing. These new elements are expected to come into play with the 2007 re-supply.

#### **2.1.4 Geographic**

Qulliq Energy Corporation serves 26 locations, all but one located north of 60°. There are no roads linking communities, and no energy grid. Nunavut is unique in that it spans 3 time zones and covers approximately 770,000 square miles, or 1/5th of Canada. Supplies and fuel arrive either by air or by boat in the limited Arctic shipping season.

Outdoor work continues to be necessary for many QEC employees, even as arctic winters and darkness create hardships and hazards. Qulliq Energy delivers electricity to communities under what are arguably the world's harshest environmental conditions.

Using the de-centralized model initiated under the Footprints in New Snow documents, Qulliq Energy has regional offices in Rankin Inlet and Cambridge Bay, its Corporate Headquarters in Baker Lake and an Executive Office and regional centre in Iqaluit.

#### **2.1.5 Environmental**

Qulliq Energy Corporation operates in some of the most rigorous environmental conditions of any utility in the world. Weather, distance and darkness generate stresses

on employees, assets and equipment. Operating standards tend to be set based on general Canadian conditions and resources, and the expectation of a pristine Arctic often raises the bar. Most Corporation employees and Board Members live and work in their home communities across Nunavut, participate in the traditional economy with its dependence on land and sea, and feel a strong personal commitment to sustainable use.

The original operator at most Nunavut Power sites was the federal crown corporation, the *Northern Canada Power Commission* which had responsibility for generation from 1949 to 1988. After that date operations were managed by the Northwest Territories Power Corporation (NTPC). At the time of division in 2001 the two corporations each agreed to manage environmental issues in their respective territories and to work together to obtain accountability from prior operators.

Qulliq Energy has inventoried its sites for environmental issues, and has a full time Environment officer engaged in prevention and remediation. The Board has taken a strong interest in site remediation, and through the Nunavut Minister of Energy, in coordination with NTPC, and using the Intergovernmental Affairs offices in Ottawa, is active in seeking resolution of contamination issues. The corporation is looking to Canada to take responsibility for site remediation.

In 2007-08 QEC anticipates cooperating with the Hamlet of Baker Lake to take key steps to resolve environmental issues in that community arising from the NCPC era, and is continuing to review and monitor all QEC sites for environmental issues.

### **2.1.6 Economic**

The largest item in QEC's current budget is fuel. All fuel is purchased through the Petroleum Products Division of the GN Department of Community and Government Services. About half of this fuel is purchased and stored by the corporation using PPD as the agent, paying "off the boat" prices. The other half is purchased from PPD

throughout the year at GN-set prices. The mixture of these purchasing methods in each community depends on the existence or locations of pipelines and the storage capacity of tanks.

Fuel prices in Nunavut are dependent on the price of crude oil on world markets and the United States versus Canada foreign exchange rate. Fuel price increases at re-supply in the fall of 2005 have been addressed through the rate rider. However, it seems likely that the overall trend in fossil fuel prices will continue to be upward. This suggests the likelihood of continuing fuel riders, to address changes in fuel cost over time.

In the longer term, higher fuel prices will make diverse alternatives to diesel generation more and more viable across Nunavut. Although creating a stressful transition, the long term diversity of generation and supply will eventually be seen as a positive impact of fuel pressures, both economic and environmental.

The corporation relies heavily on skilled employees in the communities and on trained accounting and technical staff. Although it is a leader in Nunavut in using the apprenticeship system to bring new workers into the trades, national scale energy projects elsewhere in Canada will continue to draw away skilled workers and trades people at rates and in numbers which will impact on Qulliq Energy's recruiting abilities. This will generate upward pressure in several salary categories, as well as corporation-wide.

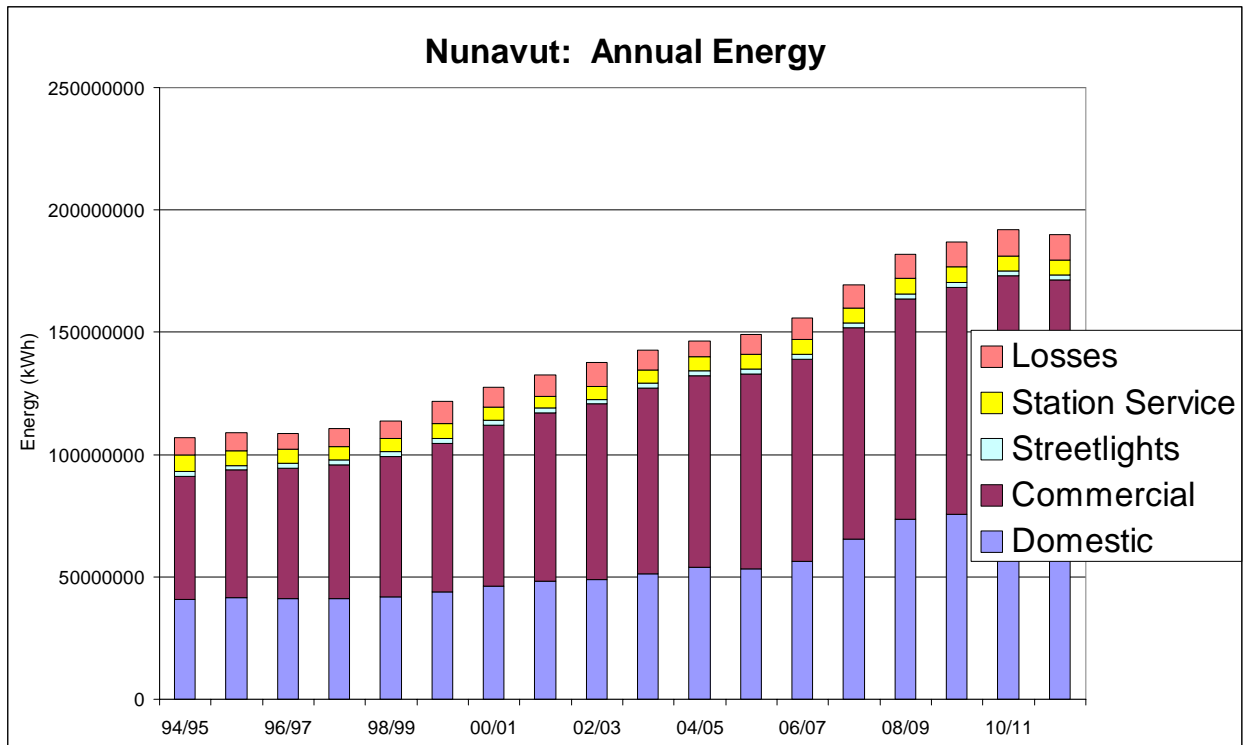
In addition, Qulliq Energy continues to look for a funding source to respond to its Article 23 obligations, as the URRC and Minister in the February 2005 recommendations and Instruction did not identify costs associated with these obligations and programs as being part of the corporation's revenue requirement.

In effect, the corporation has extensive and on-going training obligations without a corresponding revenue source.

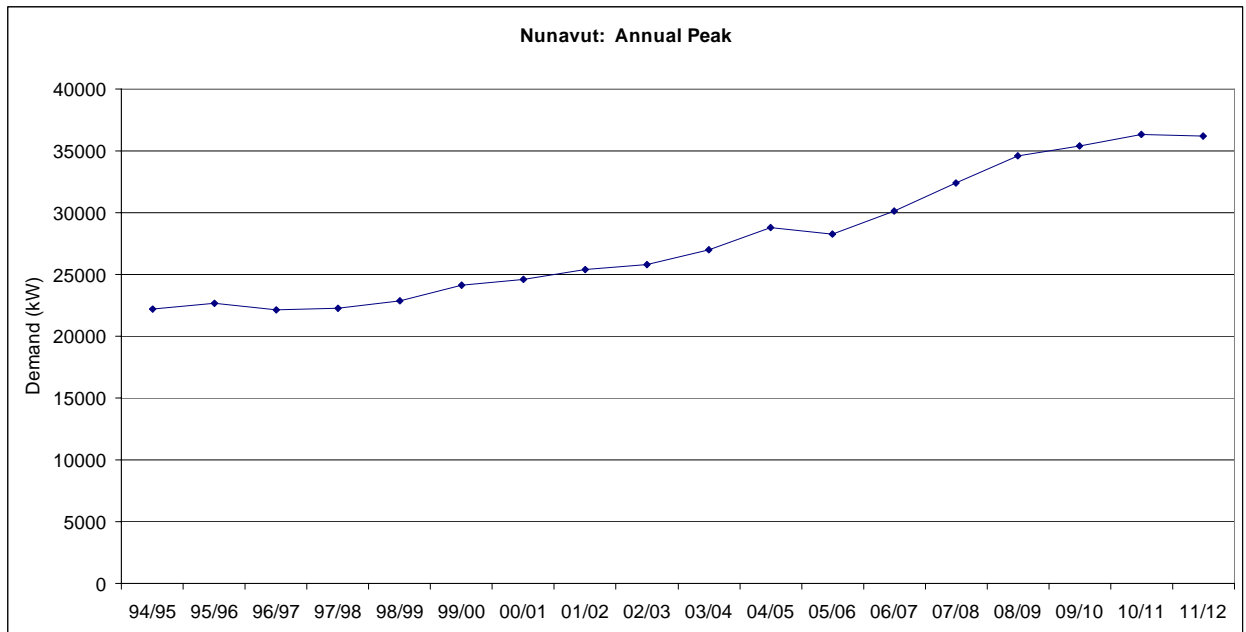
### 2.1.7 Load Growth

The corporation continues to operate in a time of significant load growth. Across Nunavut departments and municipalities are mobilizing to provide improved infrastructure to Nunavummiut. The Department of Education and the Arctic College are building a trade college in Rankin Inlet, housing and classroom facilities in other communities. In 2007 Health and Social Services has improved medical facilities under construction including the significant heat and electricity demand from the Qikiqtani General Hospital and new facilities such as Igloolik. The Nunavut Housing Corporation is working to implement the \$200M housing trust, Economic Development and Transportation requires improved airport facilities in some communities, Justice is building correctional facilities, municipalities require community centers, seniors housing, and water and sewage treatment facilities.

The following graphs depict the predicted load growths for the corporation:



**TEN YEAR PEAK DEMAND PROJECTIONS -**



There is also significant start up activity in the mining sector, which will challenge the ability of the Corporation to respond to resource development activities in communities and to the issues surrounding potential corporate participation. The corporation is investigating opportunities to participate as operator in generation activities in the mining sector and may be developing or proposing such operating relationships in the coming year along with and potentially in partnership with the Petroleum Products Division, as is currently being discussed between the parties.

Continuing national dialogue around arctic sovereignty and military activity in Nunavut has the potential to lead to capacity demands and load growth in Nunavut and for Qulliq Energy. In the past, military activity has been accompanied by financial support in return for capacity enhancement and resulting demand delivery guarantees. QEC has provided energy and capacity information to projects contemplating port construction, military training operations and other key infrastructure.

These military requirements for energy will be monitored and may eventually be quantified in ways which balance impacts for Nunavummiut and Nunavut Power with the needs of sovereignty projects and resulting demand growth.

### **2.1.8 Corporate History**

Since its inception Qulliq Energy Corporation has been in a process of rapid evolution.

It has taken time to get basic functions and services in place using the decentralized model. It has taken time to develop and gain control of budgets, and to put in place a workforce which responds to the mix of needs unique to the Corporation.

At the same time, the Corporation has been asked to respond to the recommendations in the Ikuma II Report which suggested a new corporate structure, new responsibilities and a significantly altered role in the life of the new territory. Most of the corporation's history and that of its predecessor involve years of quietly providing diesel generation to isolated communities. The new glare of attention and the anticipated role as an energy leader have brought new responsibilities to the Board and managers, all of which have begun to generate change in the Corporation.

Independently of how the Government of Nunavut chooses, in the short or long term, to manage petroleum distribution responsibilities, Qulliq Energy has been given a new direction and role in the economic life of the territory.

Following the GRA hearings of 2004-05, the Qulliq Energy Corporation Board responded to concerns about corporate efficiency by adopting new board structures, reviewing and re-organizing the corporate structure, creating an internal audit function, and working to define Board and corporate structure.

The audited financial statements at the end of 2005-06 produced the first ever profit-earning for QEC and demonstrated the benefits of continuing and careful management and effective economic decision making.

While managers and employees continue to find efficiencies to enhance delivery and reduce cost, it is likely that successive years will see efficiency enhancements at more moderate rates. The focus in 2006-07 has been on improved collections and cash flow. This is not simple, when managing 13,000 monthly billings and transactions from a community with no bank, but the corporation has been making gains in this area.

In 2006-07 the corporation continued the regular and reliable generation of financial statements, delivered its financials and annual report within the statutory extension period; improved its short term borrowing structures; reduced interest costs; reviewed, reduced and renegotiated commercial and residential leases; improved the energy efficiency of its owned and leased units and restructured its management of residential leases and rates. In the coming year there will be a continuation of this process, with the Corporation being more active in divesting and developing properties, using strong and verifiable economic criteria.

During this period the Corporation has continued apprenticeship initiatives, advanced plans for alternative energy generation, including hydro-electric generation for Iqaluit, and advanced the creation of the Nunavut Energy Centre: all projects with considerable public support and desirable long term impacts but with no immediate revenue support.

The coming year will see the third year of environmental work and the first Feasibility report for the proposed Iqaluit Hydro-electric project. The Board has elected to proceed on the basis that the project must be commercially viable and funded independently of territorial government sources. Work has been done and continues on appropriate corporate structures and potential partnerships.

## **2.2 Critical Issues**

### **2.2.1 Immediate Issues- Accountability**

Continuing improvements in financial reporting have ensured that the Board of Directors has the information necessary to continue improving corporate governance, and public and shareholder accountability.

The Corporation is now able to accurately predict and report load growth, operating expenditures, and capital costs, translating this information into annual revenue requirements. The Corporation can provide timely information to impacted stakeholders. The equity position is solid and improving.

The previous years of reduced revenue and limited capital mean that there are still significant capacity issues in many Nunavut communities and plants requiring replacement are still being operated. Projects in these areas will be a significant portion of the capital budgets for QEC in the next years, while valuable diesel replacement projects also demand high investments.

Additional emphasis will be placed in 2007-08 on contracting processes and accountabilities and customer service and complaints response.

### **2.2.2 Immediate Issues – Income**

The Corporation is finally in a position to have a rate structure which provides an income within acceptable limits. The Corporation's approved rates now generate the income required to operate.

The new projects of the corporation in residual heat and hydro-electricity raise new questions regarding the apportionment of costs, risks and revenues between



communities and among revenue sources. These issues will require continuing discussion and development in 2007-08.

### **2.2.3 Immediate Issues –Subsidies**

Energy costs in Nunavut are exceptionally high, notwithstanding that the corporation continues to work to ensure efficiencies in all areas of its operation. Subsidies may well be a continuing fact of life for Nunavummiut and their government.

These subsidies should be designed and delivered through an effective and targeted system designed to advance public objectives in energy consumption.

The Corporation anticipates that the implementation of the Affordable Energy Fund, currently designed for November 2007, will act as a monitor and balance for subsidy decisions and, with appropriate structure and management, will become a common source for energy capital and conservation in the territory.

### **2.2.4 Immediate Issues – Generation and Conservation Mandate**

The Corporation has responsibility to Nunavummiut to advance economically viable renewable energy opportunities.

This is being accomplished through increased efficiencies in its diesel engines, management of fuel facilities and activities to minimize environmental impacts.

The corporation does not have adequate capital to increase new diesel capacity to improve fuel consumption rates nor to maintain existing standards of back-up diesel engine capacity for all Nunavut communities. The corporation has elected, and has identified in its capital budgets as submitted to the Government of Nunavut, to manage capacity risk in Iqaluit, where trades and transportation resources are most available,

in order to continue to provide approved standards of back-up capacity in other Nunavut communities.

This risk is mitigated somewhat by the planned purchase of an additional 1 MW capacity generator for Iqaluit, which can eventually be used in other communities subsequent to the implementation of hydro-generation.

In 2006-07 the Corporation built heat recovery projects in Iqaluit and Rankin Inlet. The corporation does not have adequate capital to put in place all the heat recovery projects available and desirable in Nunavut. Some of these projects have been budgeted and approved as “zero dollar” 2006-07 projects and funding is being sought from other sources. The Board plans to review opportunities to seek partnerships for the construction of such projects including the potential to lease or sell capacity to independent Nunavut financiers or developers.

The corporation is proceeding with the third year of environmental review, monitoring and field and community work for hydro-electric generation for Iqaluit. The corporation has committed funds to provide for a complete feasibility study for one site, the Jaynes Inlet site, with incidental review of the Armshow and Annamaria Port rivers for seasonal and run-of-river potential.

This is a useful and valuable project, but internal funding of this project does impact on the adequacy of capital for other projects. In addition the GN is seeking funding to expand the Feasibility Study to include Cantley Bay.

Projects have been budgeted and approved as “zero dollar” 2007-08 projects as set out in Appendix “G” and funding is being sought from other sources. This list of desirable but unfunded projects includes the initiation of a territory-wide survey to determine the most cost effective/fuel displacing projects for alternative generation, including a review of wind opportunities based on initial Nunavut-specific criteria for site selection.

Assuming a plant life of approximately 50 years, the Corporation should be replacing a plant approximately every 2 years in Nunavut. In the 5 years since division in 2001, QEC has commissioned one new plant. This demonstrates quite clearly the issue of the long-term viability of plants, as the current plant life expectancy has become 125 years. Many existing plants were built by NCPC using federal funds and the existing community-based rate structure relies heavily on this inherited infrastructure. The financial capacity to support a replacement plant may not exist in some of Nunavut's smallest communities.

### **2.2.5 Long term Issues Human Resources**

Qulliq Energy continues to address human resource issues as part of our daily operations. The corporation has many competent and committed employees from all parts of Canada and the world. There is a need for skilled employees in the trades, in accounting, administration and engineering, and these skills are in very short supply in Nunavut. In order to deliver reliable services today, the Corporation has continued to hire from outside the territory, and has obtained many dedicated and talented employees through this process.

At current levels of Inuit employment (52% at December 2005, rising to 55% at December 2006) Qulliq Energy ranks among the most successful government institutions in supporting and retaining beneficiary employees, but it is still significantly below the target participation levels, and below the levels demonstrated in some well run business and service organizations across the territory.

The Corporation and Board have demonstrated a commitment and a desire to expand apprenticeship programs and have consistently taken advantage of internship and student employment programs. Active efforts need to continue to draw Nunavummiut into new areas of expertise and skill development.

The long-term ability to achieve the staffing levels mandated in Article 23 of the Nunavut Land Claims Agreement will depend upon Qulliq Energy recruiting and training skilled staff, and continuing to support and encourage beneficiaries to reach their potential. Several internal structural changes have advanced the recommendations of the external review in developing cohesive working relationships, including the appointment of a Chief Financial Officer (instead of the previous Chief Operating Officer) and the development of a Legal and Corporate Affairs division, plans to repatriate meter test capacity and finalize a job evaluation process currently underway.

The most recent employment statistics for the Corporation are attached as Appendix F to this Business plan.

### **2.2.6 Long Term Issues - Generation and Distribution Infrastructure**

The Corporation is facing population driven demands, demands resulting from new infrastructure requirements and demands resulting from requirements to replace aging infrastructure. All of these demands are reflected in the Corporation's load forecast which drives capital expenditures.

Qulliq Energy will continue to plan for the capital expenditures necessary to meet anticipated demand for electricity while exploring demand side management opportunities and energy alternatives.

Each year project reviews will be initiated and the list of tangible and committed renewable energy projects will grow in size and impact. The corporation will use both its capital budget and funds solicited from outside sources to advance the infrastructure goals of Nunavut.

## **3.0 CORE BUSINESS**

### **3.1 Expressed Mandates**

Qulliq Energy has a specific mandate defined by legislation, and specific instructions, received annually from the Government of Nunavut. Included within that mandate is the core business of generation and distribution of energy.

#### **3.1.1 The Legislation**

The Qulliq Energy Corporation Act indicates the objects of the Corporation are:

- a) to generate, transform, transmit, deliver, sell and supply energy on a safe, economic, efficient and reliable basis;
- b) to plan and provide for Nunavut's long term needs for affordable energy, taking into consideration Nunavut's desire to enhance energy self reliance and to conserve energy and energy resources;
- c) to purchase, store, process, distribute, deliver, sell and supply petroleum products and other fuels;
- d) to undertake programs to maximize efficiency of fuel and other energy consumption and to provide advice and information to consumers to enable fuel and energy conservation;
- e) subject to the Utility Rates Review Council Act, to set rates and tariffs for energy and services supplied by the Corporation and its subsidiaries; and
- f) to undertake any other activity ordered or authorized by order of the Commissioner in Executive Council

### 3.1.2 Letter of Expectation addressed to Chair

In 2006, the Chair of the Board of Directors was provided with an expectation letter by the Minister of Energy, and a copy was tabled in the Assembly. The Shareholder directed the Corporation to:

- work within the goals identified in the *Pinasuaqtavut - 2004-09* document, using *Inuit Qaujimajatuqangit* principles
- play a key role in the work leading to the development of the GN Energy Strategy.
- Deliver timely corporate and financial documentation.
- Build the business relationship with Petroleum Products Division of the Government of Nunavut.
- Initiate alternative generation projects in new communities [seeking funds]
- Develop plans to reduce spending on employee housing by 50% over 5 years.
- Develop policy manuals for QEC.
- Develop a job evaluation program for corporate positions and salaries.
- Develop a property management regime with evaluation of lease and ownership costs of properties required by the corporation.
- Continuing key financial priorities from 2005-06.
- Develop a mutually acceptable method of presenting and approving of QEC budgets by FMB
- Pay a dividend to the GN of 1% of the 2006-07 operating budget.

Items underway as of January 2007 are identified with a check mark.

### 3.1.3 Environmental Imperatives

The Corporation and its activities are impacted by the environmental expectations of Nunavummiut and Canadians. Pending implementation decisions by the Government of Canada, the Qulliq Energy Corporation is advancing projects to reduce fossil fuel use, to comply with any anticipated legal requirements and to attempt to avoid potential penalties.

## **3.2 CORE BUSINESSES**

The core business of the Corporation continues to be energy.

### **3.2.1 Generate and retail electricity**

The Corporation's core business is the generation and distribution of electricity in twenty-five communities in Nunavut. Safety, efficiency and reliability continue to be the standards for these services.

### **3.2.2 Increase Efficiencies in Current Operations**

The business of electricity generation needs to be conducted in a way which is environmentally responsible and economically responsive. This includes:

- Emphasis on safety and environmental responsibility
- Development of heat recovery and distribution system projects
- Attention to fuel efficiencies in both capital and operations phases
- Attention to purchasing, spending and financial management practices
- Looking to new opportunities for existing resources, such as contracts to string and carry high speed fiber optic cable using existing power poles.

### **3.2.3 Develop energy resources for economic opportunities**

In Nunavut, energy is one of the prerequisites to community or economic development. The Corporation, in partnership with government and communities intends to ensure appropriate participation in economic opportunities, consistent with risk, rewards and supply opportunities. This includes the possibility of setting up a business office, most likely in Rankin Inlet, in conjunction with the fuel supply function of the GN, to advance

Nunavut's economic participation in mineral development. The corporation plans to approach economic development resources to advance this plan.

### **3.2.4 Develop alternate generation resources**

The Corporation, through community dialogue and capital initiatives is committed to planning for and developing alternatives to diesel generation. This is a new phase for QEC and has required a review of engineering capacity, community relationships and long term goals. It may be possible in 2007-08 to use existing resources to hire an engineer with a focus on developing generation alternatives to diesel.

### **3.2.5 Support Nunavummiut in energy conservation**

The Corporation intends to advance the core business of supporting Nunavut in energy conservation through two means:

the *Nunavut Energy Center*, approved by the Board as a conservation resource to individuals, businesses, non-governmental organizations and communities is building its capacity in demand side management

the development of a comprehensive energy strategy by the GN Energy Secretariat to lay out a long term vision of energy use in a 5 and 25 year time frame, as contained in the Letter of Expectation.

Some resources for these projects will need to be made available through third parties, as they are not the sort of expenditures typical of a utility revenue base.



## **4.0 PRIORITIES**

### **4.1 Priorities from 2006-07**

#### **4.1.1 Safe and Secure Supply**

The delivery of a reliable and safe supply of electricity to Nunavut communities is the primary task of the Corporation and underlies all its other goals.

Nunavut Power has an excellent record of reliability in delivering electricity to Nunavummiut, even without taking into account the fact that it has been achieved in the face of extreme weather, incredible distance and limited access. These levels of service need to be supported and maintained.

Improvements can be achieved in communicating better with customers in the event of outages and changes to service delivery. Emergency planning and preparedness continues to be part of the QEC mandate.

#### **4.1.2 Enhanced Accountability**

In 2006-07 the financial services of QEC delivered regular financial reporting and accountabilities. The Corporation is participating as a founding member of the Canadian Off-Grid Utilities Association in the establishment of benchmarks in common with other similar utilities.

This is providing both the corporation and consumers in Nunavut with standards in safety, efficiency, environmental standards and customer relations and assist the Corporation to generate standards and accountability in each of these areas.

### **4.1.3 Capital Initiatives**

It is critical that Qulliq Energy, with its counterparts in Nunavut, continue to coordinate energy efficiency projects, load growth demands, energy alternatives developments and fuel supply initiatives.

The approved 2007-08 capital plan, attached as Appendix "C" shows the balancing of these three elements.

### **4.1.4 Sustainability.**

#### **Financial**

For the first year since 2001, the Corporation has reached the point where it has adequate income to be financially self sustaining. Significant progress was achieved during 2004-2005 in the reduction of expenses and in increased efficiencies. That progress continued during 2005-2006, and was be aided by the price increases authorized.

There continues to be a need for a vigilance in tracking fuel pricing and consumption and other input costs. Efficiencies achieved have sustained the corporate equity but it is clear that capital development has been impacted, and it will take several years of focus on capacity to reach a maintenance level.

Continuing attention needs to be focused on financial accountability within Qulliq Energy with new efforts to manage expenses, and the monitoring of deficits and expenditures to maintain a healthy debt ratio and appropriate and healthy capital expenditures to advance energy and corporate efficiencies.

A number of significant revenue issues have been addressed in 2006-07. Focus on revenue means and approaches needs to continue in the coming year.

## **Supply**

World oil prices will continue to have the potential to significantly impact the Corporation's largest expenditure category, and force prices upward (or permit them to move downward, should we be so fortunate). Additional fuel costs, while outside of the Corporation's control, impact equally on consumers. The corporation will continue to apply for rate riders as fuel prices change.

## **Alternative Generation**

It is essential from both an economic and environmental perspective that QEC and Nunavut move away from dependence on fossil fuel.

These are projects, which are economically or environmentally desirable but are outside of QEC's capacity to fund at current rates, have been approved only to the extent that the corporation can afford or can obtain appropriate external funding.

## **Human Resources**

The corporation is taking a long term perspective in developing and sustaining its apprenticeship programs and is initiating work to bring accelerated access to engineering careers. The Corporation will continue to advance opportunities for Inuit employment and for training to bring Inuit participation into all areas of the workforce.

## **Governance**

The Corporation proposes to develop its work in building effective Board structures by continuing the Board training offered in February 2005 through the Office of the Auditor General in Edmonton.

In April 2006 Qulliq Energy co-sponsored a Northern Crown Forum with the Institute on Governance out of Ottawa. CEOs, CFOs, chairs and vice-chairs of Nunavut and Northern Crowns have been invited to participate in sessions designed to enhance board leadership and accountability skills.

The success of the 2006 forum has lead the Corporation to propose a similarly co-sponsored forum in April 2007 for a similar group or Board Members, senior staff and IPGs generally on the basics of the finance and audit functions and the effectiveness of committees and boards in monitoring and obtaining financial accountability.

## **5.0 CONCLUSION**

Qulliq Energy Corporation continues to operate in a unique environment, in a demanding climate, under difficult conditions for financial success and under significant human resources challenges.

In each of these areas in 2006-07 the Corporation has continued to demonstrate capacity and on occasion, remarkable progress. The transition from an exclusively diesel generation corporation to a modern energy company capable of delivering energy options to Nunavummiut is underway.

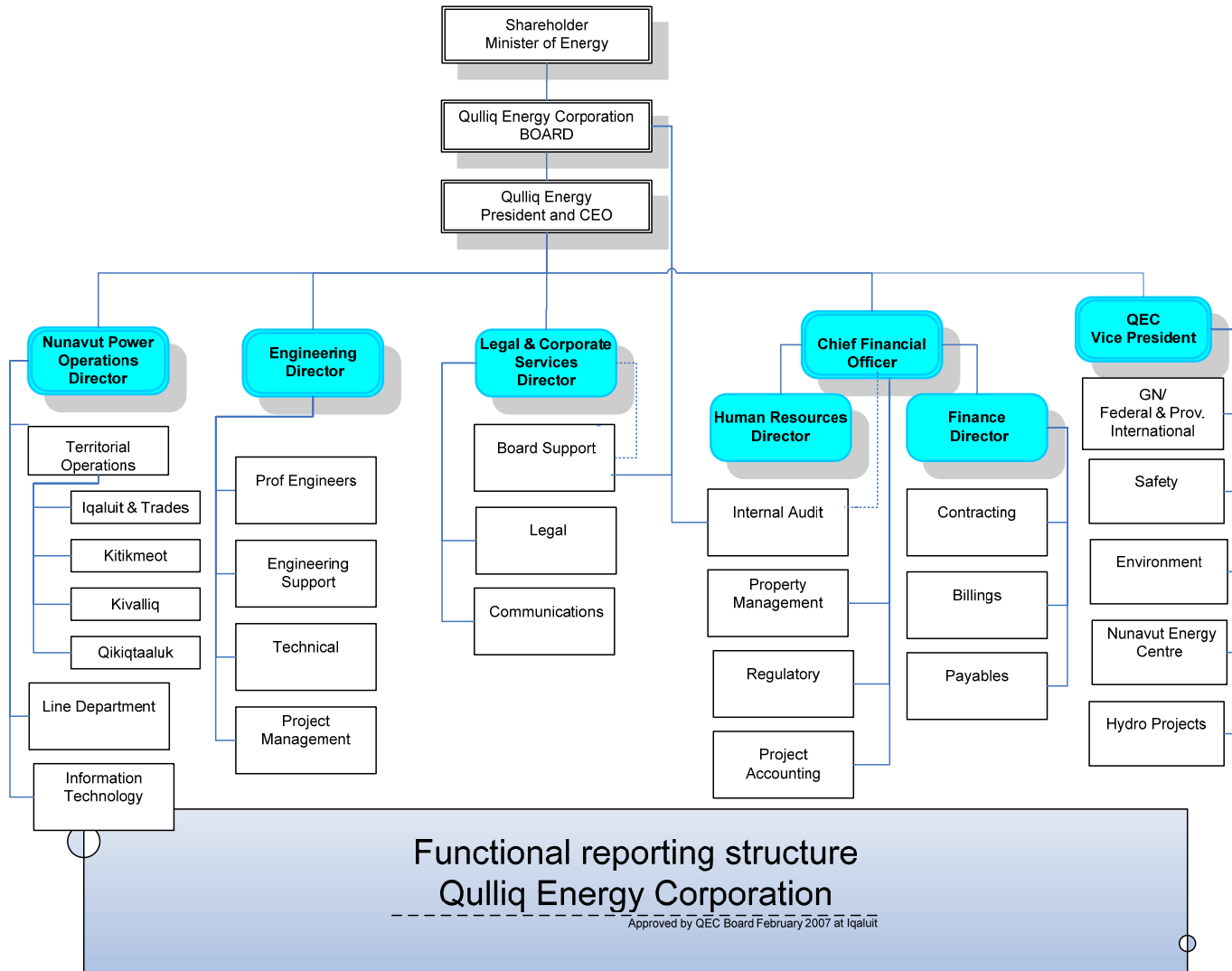
There are still significant changes which can advance the efficiency and responsiveness of Qulliq Energy Corporation and its component businesses, but major change can be seen now and will continue.

More adaptation of generation resources, improved customer service and enhanced internal and external communications are vital and will be part of the focus of the next year, including a newly updated website and virtual billings.

We feel that Qulliq Energy Corporation is continuing on the path to delivering on options and opportunities envisioned when Nunavut decided to take up its own energy challenge, beginning in April 2001.

Simon Merkosak  
Chair  
Qulliq Energy Corporation

# Appendix A – Organization Structure



**Appendix B – 2007-2008 Operating Budget**

**Appendix C – 2007-2008 Capital Budget**

**QEC CAPITAL BUDGET 2007 - 2008**

#	Plant	Community	Description	Approved
5257	501	Cambridge Bay	Fuel System Upgrade	209,000
	501	Cambridge Bay	System Grounding Study/Upgrade	100,000
	503	Taloyoak	Breakers Replacement/Retrofit	200,000
	503	Taloyoak	Ventilation System Upgrade	128,000
	504	Kugaaruk	Capacity Increase	725,000
	504	Kugaaruk	Substation Upgrade	100,000
	504	Kugaaruk	Transient Accommodation Trailer	150,000
	505	Kugluktuk	Radial Boom Truck	50,000
	603	Arviat	Radiators / Structure	153,500
	603	Arviat	Foundation Remediation	49,000
	604	Coral Harbour	Ski Dozer	150,000
	605	Chesterfield Inlet	Fuel System	20,000
	605	Chesterfield Inlet	Plant Roof Replacement/Upgrade	150,000
	606	Whale Cove	Power Plant - Foudation Struct. Asses.	60,000
	607	Repulse Bay	Transient Accommodation Trailer	150,000
	607	Repulse Bay	Capacity Increase	725,000
5255	701	Iqaluit	Hydro Survey - Feasibility / Licensing	3,500,000
5264	701	Iqaluit	Distribution Substation Construction	2,260,000
5265	701	Iqaluit	Distribution System Upgrades/Feeder	900,000
	701	Iqaluit	Emergency Generators	500,000
	701	Iqaluit	Fed. Plant Switchgear retrofit	200,000
	701	Iqaluit	Fuel Supply Line	140,000
	701	Iqaluit	Man Lift	55,000
	701	Iqaluit	Air System Improvement	126,500
5268	702	Pangnirtung	Fuel System Upgrade	194,000
	703	Cape Dorset	New Generating Station design	780,000
5270	704	Resolute Bay	South Camp Voltage Conversion	220,000
	704	Resolute Bay	Fuel System Upgrade	202,000
	705	Pond Inlet	Radial Boom truck	50,000
	707	Hall Beach	Generator Load Share Upgrade	75,000
	713	Sanikiluaq	Capacity Increase	350,000
		Nunavut	Fire Alarm Systems	150,000
		Nunavut	Vehicle replacement	120,000
		Nunavut	Fence Properties	80,000
		Nunavut	Fuel Cooling Rads	150,000
Total Projects				13,172,000



## **Appendix D – Statement of Objectives**

### **1. Corporate Objectives Qulliq Energy Corporation Act Statutes of Nunavut, 2003**

Objects of Corporation

5. (1) The objects of the Corporation are:
- (a) to generate, transform, transmit, distribute, deliver, sell and supply energy on a safe, economic, efficient and reliable basis;
  - (b) to plan and provide for Nunavut's long term needs for affordable energy, taking into consideration Nunavut's desire to enhance energy self-reliance and to conserve energy and energy resources;
  - (c) to purchase, store, process, distribute, deliver, sell and supply petroleum products and other fuels;
  - (d) to undertake programs to maximize efficiency of fuel and other energy consumption and to provide advice and information to consumers to enable fuel and energy conservation;
  - (e) subject to the *Utility Rates Review Council Act*, to set rates and tariffs for energy and services supplied by the Corporation and its subsidiaries; and
  - (f) to undertake any other activity ordered or authorized by order of the Commissioner in Executive Council.

### **2. Pinasuaqtavut**

#### **Guiding Principles**

The employees of the Corporation recognize the Pinasuaqtavut principles are a valuable source of guidance in undertaking the daily activities of generating, distributing and administering the provision of electricity to our customers

#### **Objectives of the Second Legislative Assembly of Nunavut**

The Corporation's objectives include and are consistent with the objectives of the Second Legislative Assembly of Nunavut. The Corporation is assisting the Government of Nunavut in achieving those objectives by providing:

- reduced dependency on diesel through heat recovery and distribution systems, and alternative generation planning
- environmental protection and monitoring of fuel purchasing, storage and supply
- beneficiary apprenticeship and internship employment programs that remove barriers to employment

- beneficiary recruitment, retention, education and training programs that remove barriers to employment
- responses and solutions relating to the recommendations of the Office of the Auditor General and Legislative Assembly Standing Committees
- services to the public in Nunavut's languages
- administration of electricity rate subsidy programs for the GN
- capital planning to support territorial and municipal infrastructure improvements
- participation in the implementation of the revised NNI policy, and
- improved accountability and managing in a fiscally responsible manner.

## Appendix E

### Text of Minister's Expectation Letter



ΔΔ<ª Ád  
Hon. Edward Picco

ΓσΥ< ð<LªðN<ªªσ<ª<ª<  
Minister of Energy

September 20, 2006

Simon Merkosak  
Chairman  
Qulliq Energy Corporation  
P.O. Box 120  
Pond Inlet NU X0A 0S0

*Simon*  
Dear Mr. Merkosak:

#### **Qulliq Energy Corporation Letter of Expectation 2006-07**

Thank you for your comprehensive letter of June 30, 2005 which outlined the initiatives that the Qulliq Energy Corporation (QEC) was expecting to undertake to compliment and address its letter of expectation for 2005/06. The efforts that you have taken to strengthen financial reporting, internal accounting and Board education will provide a solid underpinning for corporation operations into the future.

This is the second annual letter of expectation for QEC, covering the fiscal year 2006/07. It provides direction in defining priorities and desired outcomes for the corporation, as well as reporting responsibilities and ongoing liaison with the Government of Nunavut.

This letter is intended to provide direction to you in your capacity as Chairperson of the Board of Qulliq Energy Corporation. You should discuss these priorities with your fellow members of the Board of Directors, as well as the President of QEC in order to assess how best these directions can be implemented.

The priorities in this document are intended to complement directives received from the Executive Council and myself as the Minister responsible for Qulliq Energy Corporation, If you perceive conflicting priorities, it is incumbent upon you to raise them with me. It is also vital that all activities of QEC remain consistent with its mandate as laid out in the *Qulliq Energy Corporation Act*, its regulations and the Corporation's by-laws.

#### **Pinasuaqtavut: 2004-2009 Priorities**

Under *Pinasuaqtavut: 2004-2009*, the Government of Nunavut is committed to two overriding priorities – building a stronger cultural foundation based on Inuit societal values, and developing and expanding our economy. It is particularly under this latter priority that Qulliq Energy Corporation will continue to play a vital role.

Under *Pinasuaqtavut*, the Corporation is specifically instructed to find alternatives to diesel fuel for electricity generation. As was the case in the 2005/06 Letter of Expectation to the QEC, I again ask that the Corporation play a key role, along with the Energy Secretariat, which will assume the lead, to develop a comprehensive energy strategy, in partnership with appropriate GN departments and other organizations. This strategy will assist the government to manage energy issues over the next 10 years and beyond with specific targets and initiatives for the next two and five years.

As a member of QEC's Board of Directors, it will also be your responsibility to implement priorities that touch upon all GN departments, agencies, boards and Corporations. This means, for example, enhancing efforts to incorporate the principles of Inuit Qaujimajatuqangit into programs and services as well as increasing beneficiary employment to the representative level mandated by the Nunavut Land Claims Agreement. Your commitment to *Pinasuaqtavut* priorities is critical to the continuing development of Nunavut.

#### **Timely Financial Reporting**

As Minister responsible for the QEC, I look forward to continuing to receive and review board-approved documents such as the corporate plan, budget and annual report in a timely manner. These documents are the cornerstones to effective oversight by the GN as your sole shareholder.

It is also important that dialogue and communication be ongoing and at many levels. It is very important that the corporation develop a close working relationship with the Department of Finance at all levels. This relationship needs to be actively developed on both parts, with an effective flow of information, both formally and informally.

The work of Qulliq Energy Corporation has significant impacts on the economic life of Nunavut and on GN budgets and allocations. Effective decision-making for QEC and the



- Following on your approval of a Land Management Policy, develop for Board approval, and with notice to my office, a program of property management, as well as an evaluation of the costs of leases and ownership options.

#### Financial Reporting for 2006-2007

Over the next few years, the Government is facing financial challenges in many program areas. This will make financial management generally more difficult. Each deputy head and crown corporation will be held accountable to manage their department or Agency within authorized budgets and financial resources.

In her 2004 and 2005 reports, the Auditor General of Canada highlighted a number of financial challenges that the Territorial Corporations must address.

During 2006-07, you are instructed to continue to give attention to the following priorities:

a. *Financial priorities carried forward from 2005/06:*

- Improving the accuracy and timeliness of financial reports, in compliance with the *Financial Administration Act* (FAA) and the *Qulliq Energy Corporation Act*. Accordingly, you are to work closely with the Crown Agency Council and the Comptrollership Branch of the Department of Finance to produce, by December 31, 2006, an implementation plan for the delivery of your Annual Report for 2006/07 within the legislated timeframe.
- Submitting to the GN Department of Finance all schedules and working papers required (for the purpose of preparation of GN Public Accounts), regarding the fiscal year end, within 15 days of the request;
- Tabling in the Legislative Assembly a plan of action addressing any observations and recommendations of the Auditor General pertaining to the QEC in the Auditor General's 2006 annual report;
- Submitting to the GN Department of Finance management letters (and the QEC response) issued by the auditors (both the Auditor General and any other independent auditor) for all the audits conducted on the QEC;
- Submitting to the GN Department of Finance a comprehensive detailed listing of the QEC's leased properties; and
- Providing details of any proposed financing agreements QEC is negotiating prior to finalizing any agreements.

b. *New financial priorities for 2006/07*

- In recognition of the change to the FAA in relation to budgeting, work cooperatively with staff of the Department of Finance and the Crown Agency Council to arrive at a mutually acceptable method of presenting and approving the QEC's full budget for 2006/07 and onward, in association with the Government of Nunavut's budget development and business planning cycle.
- Pay to the GN, or to a fund identified, a dividend in the value of 1% of your operating budgets for 2006-07, as the Corporation's contribution to GN budget management and efficiency initiatives.

Simon, I look forward to reviewing your response, which should set out the basics of how you intend to implement these goals and which will be tabled in the Legislative Assembly.

I am confident that, in addressing these priorities, you and the Board and management at Qulliq Energy Corporation will continue to make progress in strengthening the Corporation, while responding to the long-term energy needs of Nunavut. By so doing, you will play a vital role in enhancing the social, economic and environmental well-being of Nunavummiut. I look forward to working with you towards these goals.

Yours truly,



Edward Picco  
Minister of Energy

- cc. Honourable David Simailik, Chairperson CAC  
Honourable Paul Okalik, Vice-Chairperson CAC  
Honourable Louis Tapardjuk, Minister of Human Resources, Member CAC  
Mrs. Anne Crawford, CEO, Qulliq Energy Corporation  
Mr. Peter Ma, Deputy Minister, Finance

## Text of Response



Executive Office  
Suite 100, Parnaivik Building  
P.O. Box 580  
Iqaluit, NU X0A 0H0  
Phone: (867) 979-7531

November 21, 2006

The Hon Edward Picco  
Minister of Energy  
Government of Nunavut  
Iqaluit, NU

Dear Minister Picco

Thank you for your 2006 Letter of Expectation and for the opportunity to respond to the contents. Your letter has been carefully reviewed by the Corporation Board of Directors and this letter has been approved in response.

### **ALTERNATIVES TO DIESEL**

The Board agrees completely with the GN's desire to advance capital projects which provide alternatives to fossil fuel consumption. Three such projects underway in 2006-07 are the Iqaluit and Rankin Inlet residual heat projects, and the Iqaluit Hydro-Electric Generation Surveys.

These projects are funded through QEC equity and borrowing, and must compete with our primary responsibility to use capital funds to maintain effective and reliable electricity generation in communities.

The Board makes every effort to balance these responsibilities. We recognize the wide-ranging efforts being made by GN to assist in obtaining federal grants and funds to help develop such projects, as well as the work of Economic Development, Education and Environment in advancing these projects as part of Nunavut's overall goals to self sufficiency and financial independence.



## **TIMELY FINANCIAL REPORTING AND APPROVALS**

Numerous elements in your letter relate to the financial reporting relationship. These are reasonable requests from a shareholder.

In this context we are concerned to develop clear agreements on process, timing and approach so that we can anticipate and provide timely documentation and exchange to you and to the Crown Agency Council.

We have provided possible drafts and look forward to achieving a written memorandum on these procedures.

In addition, as you indicate, the informal exchange of information is very important. We would appreciate there being a regular and consistent monthly forum for our senior managers to exchange information and financial issues on a proactive basis.

## **FINANCING ISSUES**

In anticipation of progress on the Iqaluit Hydro-Electric project, a major capital commitment, there is significant common work to be done, including developing financial models, affirming authorities and confirming an effective and nimble decision making process where the Corporate and GN accountabilities overlap.

We look forward to both building and confirming this process with you, and to continuing GN participation in this project.

## **SYSTEM-WIDE INITIATIVES**

Each year the GN engages in many system-wide initiatives which may include or impact on QEC. Sometimes QEC is a key partner, other times the situation at QEC may be outside the scope of a study, or the Corporation's finances or systems may operate on a completely different basis.

A good joint analysis of these initiatives will permit the company to make the best contribution and the best use of ratepayer's resources.

In this we rely on the government's statement of belief in *Pinasuaqtavut* "...diversity in approach can build on unique strengths..."

## **KEY CURRENT INITIATIVES**

There are two key initiatives in the current year's letter; the new requirements for a dividend and the setting of a standard for corporate housing expenditures. Both will require significant attention, but we believe that each is possible in the time frame given.

**Dividend**

Our interim statements suggest a reasonable return for 2006-07, and a dividend is possible. The key value for any return on equity is that it permits the leveraging of funds for much needed capital investment in improved capacity and reliability through advances in plant and equipment.

We accept that this dividend was set to underline GN wide requirements to exercise careful financial management in a time of restraint.

**Housing**

On the issue of housing for employees, the corporation has employed a Property Manager and work is underway within the corporation to advance the goals the GN has set. Improved analysis, review and policy development will result in efficiencies for industrial, commercial and residential property owned and leased by Qulliq Energy.

Each of these current-year initiatives underlines the need for the Corporation to use and develop the shareholder's equity effectively and in ways that support economic development for all Nunavut communities.

We will provide interim information to you on both process and results.

**CONCLUSION**

We are pleased to have received this comprehensive statement of your goals and concerns for Qulliq Energy Corporation and will work with you to advance these goals and the interests of all Nunavummiut.

Yours truly,



Simon Merkosak  
Chair  
On behalf of the Qulliq Energy Corporation  
Board of Directors

Cc: Anne Crawford  
President and CEO

## Appendix F

### December 2005 Inuit Employment Statistics

#### Employment Summary, by Category Does not include Casuals

		Total Positions			Beneficiaries	
		Total Positions	Vacancies	% Capacity	Hired	% IEP
Executive	1	4	0	100%	2	50%
Sr Management	2	4	1	75%	0	0%
Mid Management	3	18	1	94%	2	12%
Professional	4	47	3	94%	14	32%
Paraprofessional	5	39	1	97%	25	66%
Admin Support	6	45	3	93%	39	93%
<b>Total Corporation</b>		<b>157</b>	<b>9</b>	<b>94%</b>	<b>82</b>	<b>55%</b>

#### Employment Summary, by Community

Arctic Bay	200	2	0	100%	1	50%
Qikiqtarjuaq	205	2	0	100%	2	100%
Cape Dorset	210	2	0	100%	2	100%
Clyde River	215	2	0	100%	2	100%
Grise Fiord	220	2	0	100%	2	100%
Hall Beach	225	2	0	100%	2	100%
Igloolik	230	2	1	50%	1	100%
Iqaluit	235	62	2	97%	20	33%
Kimmirut	240	2	0	100%	1	50%
Nanisivik	245	0	0		0	
Pangnirtung	250	2	0	100%	2	100%
Pond Inlet	255	2	0	100%	2	100%
Resolute Bay	260	2	0	100%	2	100%
Sanikiluaq	265	2	0	100%	1	50%
Arviat	300	2	0	100%	2	100%
Baker Lake	305	30	4	87%	15	58%
Chesterfield Inlet	310	2	0	100%	2	100%
Coral Harbour	315	2	0	100%	1	50%
Rankin Inlet	320	12	0	100%	7	58%
Repulse Bay	325	2	0	100%	2	100%
Whale Cove	330	2	0	100%	2	100%
Bathurst Inlet	400	0	0		0	
Umingmakotok	405	0	0		0	
Cambridge Bay	410	11	1	91%	4	40%
Gjoa Haven	415	2	1	50%	1	100%
Kugluktuk	420	2	0	100%	2	100%
Kugaaruk	425	2	0	100%	2	100%
Taloyoak	430	2	0	100%	2	100%
<b>Total Community</b>		<b>157</b>	<b>9</b>	<b>94%</b>	<b>82</b>	<b>55%</b>
Headquarters		30	4	87%	15	58%
Region		127	5	96%	67	55%
<b>TOTAL</b>		<b>157</b>	<b>9</b>	<b>94%</b>	<b>82</b>	<b>55%</b>

## Appendix G

### 1. Residual Heat projects

Iqaluit I and Rankin Inlet I systems operational January 2007  
 Proposed for Iqaluit II, Rankin Inlet II, Baker Lake and Arviat  
 Extensions and improvements possible in many communities

<b>Residual Heat Projects</b>	<b>QEC Budget 2006-07</b>	<b>Total Project Costing</b>	
Iqaluit Rankin Inlet <i>Federal Commitment to Date</i>	1.3M 3.0M	2.6M 5.6M 1.5M	
<b>Project Description</b>	<b>Quick Economics</b>		
Use of heat capture devices in existing diesel generation plants, to transfer what was formerly seen as “waste” heat, into district heating systems. Heat is distributed to nearby buildings through pipe systems, and displaces fossil fuels used for heating.	<ul style="list-style-type: none"> <li>• High capital cost</li> <li>• Low maintenance</li> <li>• Long life, high return</li> <li>• No Greenhouse gas emissions</li> <li>• Residual Heat, a URRC-regulated commodity, is sold at 90% of price of the cost of heating fuel displaced.</li> </ul>		

**Radek Bryx**  
**Director of Engineering**

## 2. Nunavut-wide alternative generation study

Nunavut-wide  
Community based

Nunavut-Wide Alternative Generation Study	QEC Budget 2006-07	Total Project Costing	Projected Return on Capital
All communities <i>Federal Commitment to Date</i>	\$0	3M	n/a
Project Description	Quick Economics		
<p>An initial community by community survey of energy generation and fuel displacement opportunities in Nunavut, including wind, hydroelectric, run-of-river, residual heat and heat utilidor, alternative fuel and local sourcing.</p> <p>Project would use community-based “all in” fuel displacement and cost criteria.</p> <p>Coordinated by a full time engineering position, contracted expertise in each alternative energy discipline.</p>	<ul style="list-style-type: none"> <li>• Gives QEC and other potential funders an economic basis for energy investment decisions in Nunavut.</li> <li>• Identifies options to reduce Nunavut’s dependency on imported fossil fuel.</li> <li>• Liberates up to 20% of government budgets used for energy purchase each year for other program purposes.</li> </ul>		

**Radek Bryx**  
**Director of Engineering**

### 3. Hydro-electric generation for Iqaluit area

Feasibility stage for Iqaluit

May have impacts on Kimmirut and/or Pangnirtung

Iqaluit Area Hydro-Electric Generation	QEC Budget 2007-08	Total Project Costing	Projected Return on Capital
Initial Site Review (05-06) Legal Pathways (05-06) Environmental (05-06) Community Information (05-06) Stream gauging (06-07 - forward) Environmental II and IQ (06-07) Site feasibility /geotechnical (07-08) Social Impacts (07-08) Environmental III and IQ (06-07)		200K 60K 60K 400K 200K 2M To be tendered 400K	to determine through feasibility studies
Project Description		Quick Economics	
<p>Identification and evaluation of potential hydro-electric generation sites within 200 km of Iqaluit.</p> <p>Initial evaluation of environmental, social and economic impacts. Hydrological surveys.</p> <p>Initial community information exchanges.</p> <p>Geo-technical testing of "best" site(s)</p> <p>Selection of hydro-electric site(s), initial land acquisition, initiation of licensing processes.</p>		<ul style="list-style-type: none"> <li>• Hydro-electric technology is well established in Arctic environments.</li> <li>• Low maintenance</li> <li>• Long asset life (60 to 90 years)</li> <li>• This project alone would displace 30% of QEC's diesel emissions to make the Nunavut industry environmentally compliant.</li> <li>• Creates price and economic stability.</li> </ul>	

**Jamie Flaherty**  
**Vice-President**

#### 4. Demand Side Management projects

Through Nunavut Energy Centre

<b>Demand Side Management Projects</b>	<b>QEC Budget 2007-08</b>	<b>Total Project Costing</b>	<b>Projected Return on Capital</b>
Nunavut Energy Centre	750K		
<b>Project Description</b>		<b>Quick Economics</b>	
<p>The <i>Nunavut Energy Centre</i> is a project of Qulliq Energy corporation, operated under a registered trade name.</p> <p>It is designed to advance demand side management projects with individuals, communities, businesses, and non-governmental organizations through identifying, evaluating, promoting and finding funding for projects which advance demand side management (reductions in energy use).</p> <p>Many energy-conserving projects can be developed and implemented through the multi-year project.</p>		<ul style="list-style-type: none"> <li>• Economic re-capture of fuel saved</li> <li>• Unexpended subsidy values (electricity, fuel, water etc) also become savings to government</li> <li>• Advances environmental goals</li> <li>• Avoidance of load-driven capital costs in high growth populations</li> </ul>	

**Jamie Flaherty**  
**Vice President**

## 5. Optimal Efficiency Plant Design

Design underway  
 Qikiqtarjuaq  
 Grise Fiord

<b>Optimal Efficiency Plant Design</b>	<b>QEC Budget 2007-08</b>	<b>Total Project Costing</b>	<b>Projected Return on Capital</b>
Qikiqtarjuaq Grise Fiord <i>Optimal Design project</i>	50K 70K	6.45M 3.75M 300 K	
<b>Project Description</b>		<b>Quick Economics</b>	
<p>QEC engineers and consultants design new electrical operations and plants with a view to fuel efficiency. Each plant has an expected life of about 25 to 45 years.</p> <p>An optimal efficiency design project would permit the evaluation of new methodologies for fuel use, based on Nunavut pricing and conditions, resulting in more efficient plants for many years in the future.</p>		<ul style="list-style-type: none"> <li>• Assists Nunavut in developing independence from external fuel sources</li> <li>• Support long term environmental compliance</li> <li>• Encourages economic development through stabilizing energy pricing</li> </ul>	

**Radek Bryx**  
**Director of Engineering**



## 6. NCPC – Contaminated Sites Clean-Up

15 sites across Nunavut  
Baker Lake Active remediation

<b>NCPC - Contaminated Sites Clean UP</b>	<b>QEC Budget 2006-07</b>	<b>Total Project Costing</b>	<b>Projected Return on Capital</b>
Estimated Clean-Up cost - \$2004 Top 10 Sites Remaining Sites Nunavut wide Federal Commitment to Date		>\$55M >\$52M	
<b>Project Description</b>		<b>Quick Economics</b>	
<p>The federal crown corporation NCPC operated in what is now Nunavut and the NWT until 1988 when its assets were transferred to NTPC and subsequently through to Qulliq Energy Corporation. The terms of division with the NWT place environmental liabilities <i>as is where is</i>. The terms of the federal transfer do not reference environmental liabilities or clean up.</p> <p>Both NTPC and QEC are soliciting Canada to acknowledge responsibility and/or to participate in the clean up of these sites.</p>		<ul style="list-style-type: none"> <li>• Sites in and very near to communities</li> <li>• Spills, materials and accidents from activities of INAC managed crown corporation</li> <li>• Transfer contacts via NTPC do not transfer responsibility.</li> <li>• No greenhouse gas emissions</li> <li>• URRC-regulated commodity sold at 90% of price of displaced heating fuel.</li> </ul>	

**Rick Hunt**  
Environment Officer

**7. Article 23**

Nunavut Land Claims Agreement obligation  
All sites

<b>Article 23</b>	<b>QEC Budget 2007-08</b>	<b>Total Project Costing</b>	<b>Projected Return on Capital</b>
Apprenticeships Internships Specialized training (all employees)	480K 120K 80K	<i>on-going</i>	n/a
<b>Project Description</b>		<b>Quick Economics</b>	
<p>The Qulliq Energy Corporation record is among the best for Inuit employment among Nunavut departments and agencies (53%) but is still significantly short of the targeted levels. QEC is an innovative and committed employer with interns, specialized training programs and the highest levels of apprentices in Nunavut including electrical, line-person, diesel mechanic, warehousing and other trades.</p> <p>The regulators have declined to include a revenue requirement for Article 23 activities into the corporation's billings on the basis that Inuit should not be required to pay for Article 23 through their electrical bills.</p> <p>QEC's Inuit employment activities remain unfunded. Although presented to the Berger process, the issues for a crown utility, have not been dealt with through the NIP process.</p>		<ul style="list-style-type: none"> <li>• GN supports some <i>internships</i></li> <li>• Education pays \$6 per hour for apprentices</li> <li>• QEC sits on Nunavut Apprenticeship Board</li> <li>• QEC has the capacity to training up to 12 apprentices in 4 year cycles</li> <li>• Each apprentice costs approximately \$220K per year, including training, travel, pay, housing and benefits.</li> </ul>	

**Andrea Winter**  
**Director of Human Resources**