LEADING EDGE
(LE)

REFERENCE: **Yukon Energy System Sales and Generation; P 2-2, L 13**

QUESTION:

a) Please describe the forecasting methodology that was used for the 2008 and 2009 retail sales forecasts.

ANSWER:

(a)

YEC uses customer data for the prior 3 years in order to determine the monthly average use per customer. This average use per customer is multiplied by the forecast number of customers to derive forecast sales by month by rate class.

For each community, customer counts and usage from the most recent year are reviewed in order to determine whether the number of residential or general service customers, or usage, was impacted (or is forecast to be impacted) by a major project.

Based on consultations with each YEC community Senior Serviceman and Distribution Technician, provisions are made regarding the timing of new customer connections and the forecast additional load that they will represent. These new customers are added to the average use per customer analysis to arrive at the business plan forecast.

To achieve more accurate monthly average usage forecasts for General Service customers in Faro and Mayo, the larger loads of Anvil Range Mine and Alexco Resource Corp. (Alexco) are removed before determining the monthly average use per customer. These larger accounts are then forecast based on consultation with each customer regarding upcoming season events. For example, the 2009 General Service forecast includes 2 GWh of sales to Alexco for a bulk sampling program (based on discussions with Alexco), while Anvil Range water treatment is forecast to be average this year subject to whether there is a larger than average snow pack or a very rainy spring/summer.

Streetlights and Sentinel Lights are assumed to be the same levels as the prior year unless YEC is informed in advance that a municipality is engaging in a subdivision

expansion program during the upcoming year. YEC was not advised of any additions at the time of preparation of our 2009 forecast.

REFERENCE: **Tab 2 Yukon Energy System Sales and Generation; P 2-9, L 23**

QUESTION:

a) Please indicate on how many days in 2009 peaking diesel is forecasted to be required.

ANSWER:

(a)

Yukon Energy does not have daily peaking diesel forecasts; however, hourly forecasts based on monthly load duration curves are provided in YECL-YEC-1-23(b).

REFERENCE: **Tab 2 Yukon Energy System Sales Generation; P 2-11, L 18 and L 21**

QUESTION:

a) Please explain in detail the range of summer (June through August) capacity and energy loads, the hydro capacity and energy available, and the surplus capacity and energy available to serve secondary sales.

b) How much load following from day to night can and is being carried out by the Whitehorse Rapids hydro facility during winter season?

ANSWER:

(a)

Please see the monthly load duration curves provided in response to YECL-YEC-1-50 (a) to (c).

(b)

During the wintertime the Whitehorse Rapids Hydro facility output is varied from day to night for load following; the maximum amount varied is as much as 7 MW from peak daytime periods to low load nighttime periods.

REFERENCE: **Tab 2 Yukon Energy System Sales and Generation; P 2-12, L 25**

QUESTION:

a) Are the diesel generation efficiencies specified before or after auxiliary and station service loads (including step-up transformers)?

ANSWER:

(a)

Diesel generator efficiencies used are gross efficiencies as measured at the generator output leads. They do reflect generator losses and any parasitic losses for devices that are mechanically directly connected to the engine. They do not reflect any electrical station service losses or transformer losses.

REFERENCE: **Tab 2 Yukon Energy System Sales Generation; Introduction; P 2-13, L 6**

PREAMBLE:

In this application Yukon Energy describes the need, starting in the test years, for diesel generation to meet peak loads during very cold weather (P 2-11 and elsewhere), and the need for higher residential runoff rates to discourage the installation of electric baseboard heating (Introduction to the Application P 10-11 and elsewhere) and that Yukon Energy will be spending $15.8 million on feasibility studies and planning for new renewable energy supplies (page 5-20). Conspicuous by their absence in any of these discussions and financial requests are descriptions of any plans to manage customers to discourage the installation of electric baseboard heaters.

QUESTION:

a) Please describe, for all consumer classes, the energy efficiency programs that Yukon Energy has studied and provide copies of these studies.

ANSWER:

(a)

Yukon Energy has not carried out any material studies related to energy efficiency programs or DSM programs. Energy efficiency programs are most effective when established with a sufficient public profile and coordinated across fuels and across customers in Yukon. This coordination role is currently undertaken by Energy Solutions Centre (ESC) as a department of government.

The link below is EMR's compilation of relevant Yukon Government programs.
http://www.gov.yk.ca/energy/

Yukon Housing Corporation also administers the EnerGuide for New Houses, or EcoEnergy programs (which appears to only be applicable if the houses are electric heat). See also response to UCG-YEC-1-59(c).

Yukon Energy continues to work cooperatively with ESC on these issues.

Further, it is noted that energy efficiency and DSM activities focus on end-uses of electricity. Yukon Energy does not primarily serve end users as these customers are primarily served by YECL.

Please see also response to UCG-YEC-1-20 for more detailed discussion on DSM.

REFERENCE: **Yukon Energy System Sales Generation**

PREAMBLE:

In this application Yukon Energy describes the need, starting in the test years, for diesel generation to meet peak loads during very cold weather (P 2-11 and elsewhere), and the need for higher residential runoff rates to discourage the installation of electric baseboard heating (Introduction to the Application P 10-11 and elsewhere) and that Yukon Energy will be spending $15.8 million on feasibility studies and planning for new renewable energy supplies (page 5-20). Conspicuous by their absence in any of these discussions and financial requests are descriptions of any plans to manage customers to discourage the installation of electric baseboard heaters.

QUESTION:

a) Please describe, for all consumer classes, the peak load shaving programs that Yukon Energy has studied and provide copies of these studies.

ANSWER:

(a)

Yukon Energy developed a peak shaving component of the new Rate Schedule 39 for major industrial customers (See Application, Tab 4, Appendix 4.1, Rate Schedule 39).

Please see response to LE-YEC-1-20. Yukon Energy has not undertaken any material studies related to energy efficiency programs, including peak load shaving programs.

REFERENCE: **Yukon Energy System Sales Generation**

PREAMBLE:

In this application Yukon Energy describes the need, starting in the test years, for diesel generation to meet peak loads during very cold weather (P 2-11 and elsewhere), and the need for higher residential runoff rates to discourage the installation of electric baseboard heating (Introduction to the Application P 10-11 and elsewhere) and that Yukon Energy will be spending $15.8 million on feasibility studies and planning for new renewable energy supplies (page 5-20). Conspicuous by their absence in any of these discussions and financial requests are descriptions of any plans to manage customers to discourage the installation of electric baseboard heaters.

QUESTION:

a) Please describe the consumer and contractor awareness and education programs that Yukon Energy has undertaken to inform them about the negative impacts of baseboard electric heating.

ANSWER:

(a)

Please see response to LE-YEC-1-20. These activities would be undertaken by ESC.

REFERENCE: **Yukon Energy System Sales Generation**

PREAMBLE:

In this application Yukon Energy describes the need, starting in the test years, for diesel generation to meet peak loads during very cold weather (P 2-11 and elsewhere), and the need for higher residential runoff rates to discourage the installation of electric baseboard heating (Introduction to the Application P 10-11 and elsewhere) and that Yukon Energy will be spending $15.8 million on feasibility studies and planning for new renewable energy supplies (page 5-20). Conspicuous by their absence in any of these discussions and financial requests are descriptions of any plans to manage customers to discourage the installation of electric baseboard heaters.

QUESTION:

a) Please describe the support programs that Yukon Energy has undertaken to assist the consumers (residential and commercial) who wish to be rid of baseboard or other electric heating to install non-electric heating systems.

ANSWER:

(a)

Please see response to LE-YEC-1-20.

REFERENCE: Yukon Energy System Sales Generation

PREAMBLE:

In this application Yukon Energy describes the need, starting in the test years, for diesel generation to meet peak loads during very cold weather (P 2-11 and elsewhere), and the need for higher residential runoff rates to discourage the installation of electric baseboard heating (Introduction to the Application P 10-11 and elsewhere) and that Yukon Energy will be spending $15.8 million on feasibility studies and planning for new renewable energy supplies (page 5-20). Conspicuous by their absence in any of these discussions and financial requests are descriptions of any plans to manage customers to discourage the installation of electric baseboard heaters.

QUESTION:

a) If Yukon Energy has not done some or all of the above programs please provide a detailed cost justification for each program not undertaken. Please provide any studies performed in support of Yukon Energy's decisions.

ANSWER:

(a)

Please see response to LE-YEC-1-20. The cost analysis described has not been undertaken and cannot be provided.

REFERENCE: Yukon Energy System Sales Generation

PREAMBLE:

In this application Yukon Energy describes the need, starting in the test years, for diesel generation to meet peak loads during very cold weather (P 2-11 and elsewhere), and the need for higher residential runoff rates to discourage the installation of electric baseboard heating (Introduction to the Application P 10-11 and elsewhere) and that Yukon Energy will be spending $15.8 million on feasibility studies and planning for new renewable energy supplies (page 5-20). Conspicuous by their absence in any of these discussions and financial requests are descriptions of any plans to manage customers to discourage the installation of electric baseboard heaters.

QUESTION:

a) What energy efficiency projects and what off-electric heat projects does Yukon Energy have planned for its facilities?

ANSWER:

(a)

YEC uses electric heat in its facilities, such as space heating for diesel generating stations, only when it is available from surplus hydro. Yukon Energy also expects that by 2009 it will complete a substantial program of turbine performance testing on Whitehorse and Aishihik Hydro units. Please see YUB-YEC-1-38(b).

REFERENCE: Tab 3 Revenue Requirement; P 3-7, Table 3.4; and P 3-12

QUESTION:

a) Please provide the organization chart in effect at the start of 2005 and the number of full time equivalents (FTEs) in each position. Please provide an organization chart (and FTEs in each position) that will be in effect for 2009. Please provide a detailed substantiation for each FTE added since 2005.

ANSWER:

(a)

For the organizational chart in effect for 2009 please see Attachment 1 to this response. The organizational chart for 2005 is provided as attachment 2 to this response.

The employee complement history from 2005 to 2009 is as noted in the table below:

Yukon Energy Corporation
2008/09 GRA
Employee Complement History

Perm & Term	**GRA 2005**	**Actual 2005**	**Actual 2006**	**Actual 2007**	**GRA 2008**	**GRA 2009**
President	2.00	2.00	2.00	3.00	3.00	3.00
Communications	1.00	1.00	1.00	1.00	1.00	1.00
HR & IT	6.00	6.00	6.00	6.00	7.00	7.00
Res Plan & Reg. Affairs	1.00	1.00	1.00	1.00	1.00	1.00
Finance, Billing & Purchasing	10.60	11.60	11.60	11.60	12.80	12.80
Operations	32.00	33.00	37.00	37.00	38.00	38.00
Engineering Services	13.00	13.00	13.33	14.00	12.67	12.00
Health, Safety & Environ	1.00	1.00	1.00	3.00	3.00	3.00
	66.60	**68.60**	**72.93**	**76.60**	**78.47**	**77.80**
Casual & Temporary						
President	-	-	-	-	-	-
Communications	-	-	-	-	-	-
HR & It	-	0.06	0.01	-	-	-
Res Plan & Reg. Affairs	-	0.08	-	-	-	-
Finance, Billing & Purchasing	0.11	0.04	0.10	0.24	0.22	0.22
Operations	1.28	1.82	2.43	1.60	2.20	2.10
Engineering Services	0.23	0.21	0.25	-	-	-
Health, Safety & Environ	-	-	-	-	0.33	0.33
	1.62	**2.21**	**2.79**	**1.84**	**2.75**	**2.65**
Total Before Allocation to YDC	**68.22**	**70.81**	**75.72**	**78.44**	**81.22**	**80.45**
Allocation to YDC						
President	(0.40)	(0.40)	(0.50)	(0.50)	(0.50)	(0.50)
Communications	-	-	-	-	-	-
HR & It	-	-	-	-	-	-
Res Plan & Reg. Affairs	-	-	-	-	-	-
Finance, Billing & Purchasing	(0.75)	(0.75)	(0.21)	(0.21)	(0.21)	(0.21)
Operations	-	-	-	-	-	-
Engineering Services	-	-	-	-	-	-
Health, Safety & Environ	-	-	-	-	-	-
Allocation to YDC	**(1.15)**	**(1.15)**	**(0.71)**	**(0.71)**	**(0.71)**	**(0.71)**
Net						
President	1.60	1.60	1.50	2.50	2.50	2.50
Communications	1.00	1.00	1.00	1.00	1.00	1.00
HR & It	6.00	6.06	6.01	6.00	7.00	7.00
Res Plan & Reg. Affairs	1.00	1.08	1.00	1.00	1.00	1.00
Finance, Billing & Purchasing	9.96	10.89	11.49	11.63	12.81	12.81
Operations	33.28	34.82	39.43	38.60	40.20	40.10
Engineering Services	13.23	13.21	13.58	14.00	12.67	12.00
Health, Safety & Environ	1.00	1.00	1.00	3.00	3.33	3.33
Total Net	**67.07**	**69.66**	**75.01**	**77.73**	**80.51**	**79.74**

Positions Added in 2005

1. **New position added in 2005: Network/Systems Administrator –** This position was required to meet workload demands resulting from the expanding amount of work in the information systems department, primarily in the areas of client support or first line support of workstations, laptops, printers etc. It was needed to improve quality and cost-effectiveness of IS services. Functions performed by the new network/systems administrator had been previously outsourced; however, the performance was deemed unacceptable.

2. **New position added in 2005: Procurement and Contract Administrator –** As the company has grown and the capital requirements have increased the need for support in procurement became acute. This position was added to meet this demand and increasing workload in purchasing areas of the Corporation. This position was carefully reviewed by senior management and considered to be essential and required to meet workload demands in the contracting and purchasing areas of the Corporation.

3. **New position added in 2005: Powerline Technician –** This position was required to build capacity in-house and ensure continued availability of a transmission and distribution crew to meet ongoing construction and maintenance requirements necessary to provide efficient and timely customer service. Further, foreseeable construction work in transmission and distribution justified the need for increasing staffing levels in order to create the capacity to perform this type of work in-house. This includes recent expansion of the grid (CSTP Stage 1), potential future projects (CSTP Stage 2) and required maintenance for aging facilities. Reliance on a single local qualified contractor to address core business requirements exposes the utility to risk as there is no guarantee that resources will be available when required.

4. **Land Technician added in 2005 is scheduled to end December 2009 -** This position was required to ensure that YEC secures the tenure documentation necessary to manage its risks and to ensure access for maintaining system assets, including securing leases, rights of way, easements and title for various land parcels. Once again workload volume in this area was growing dramatically and a decision to hire a land technician was essential.

Positions Added in 2006

5. **Electrical Engineer in Training (EIT) added in late 2006, scheduled to end August 2008 (2 year term) –** This position is essential and required to alleviate work load issues over the short term in the electrical engineering department.

6. **Four new positions added in 2006: 2 Apprentice Power line Technician, SCC Operator, and Manager Operations –** These positions are essential to provide continued efficient and timely customer service. Further, a material portion of Yukon Energy's workforce is becoming eligible for retirement. This includes powerline technician positions in Mayo and Faro, and these technicians will be needed to take over those positions.

   Also, in relation to SCC Operator and Manager Operations positions, Yukon Energy faces material risks due to the loss of significant numbers of employees at a time when the labour force in general is constrained due to an aging workforce and decreasing pool of skilled labour. Loss of workers of retirement age also represents a loss of critical knowledge, skills and experience in operating and maintaining core assets. Yukon Energy has focused on attracting and developing new talent that can develop skills and capture and retain the knowledge base of existing workers.

Positions Added in 2007

7. **New Position added in 2007: Vice President, Operations and Engineering -** The position was created upon the recommendation of the YEC Board and was due to high levels of work load requiring engineering experience at senior levels.

8. **New Position added in 2007: Documentation Specialist –** This position was required to address current limitations in the documentation of procedures at YEC prior to the retirement of employees with expertise in various technical areas. After a review by senior management it was decided that it was necessary to begin to preserve the Corporation's "intellectual capital" by documenting critical operations and maintenance procedures (as well as developing preventive maintenance schedules), transferring knowledge/ skills into procedure manuals. This process will also be linked to developing safe work procedures required to comply with OH&S regulations.

9. **New position added in 2007: Manager, Environmental Assessment and Licensing –** This position was required to address the increased legislated requirements and ongoing workload related to implementing, managing and maintaining environment management systems.

Positions Added in 2008

10. **New Position added in 2008: Records Management Analyst –** This position was required to address material file storage space issues faced by YEC related to records management and library systems. Yukon Energy requires polices, guidelines and procedures be developed and implemented to provide for economy and efficiency in the creation, use, maintenance and disposal of obsolete records.

11. **New Position added in 2008: 2-Year Term Financial Administrator** – This position was required to address additional and material workload requirements in the finance department in 2008 and 2009 related to two major projects (i.e., the GRA and Financial System Replacement).

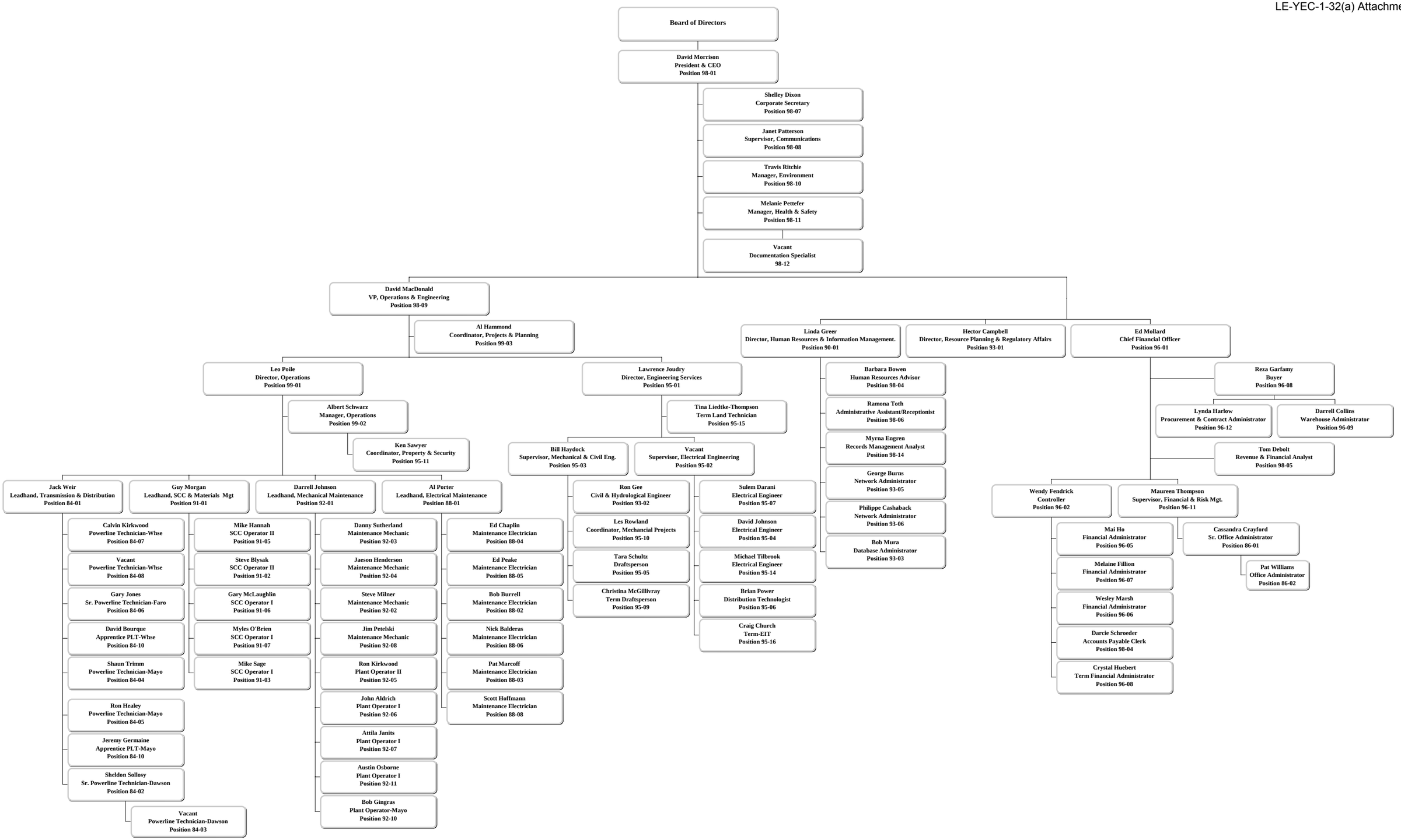
12. **In 2008 Office Administrator will be increased to .80 FTE from .60 FTE due to CIS System Conversion –** This position was deemed necessary to increase by .2 additional hours the FTE of the Office Administrator in order to address increased workload associated with the customer billing system replacement project.

13. **New position added in 2008: Coordinator, Capital Projects –** This position was required to provide coordination support for the various capital projects being undertaken by YEC at this time. It was considered essential to have a position dedicated to prioritizing project activities in order to ensure that they are scheduled with effective timelines and resources consistent with achieving corporate goals and strategies.

14. **Temp Jr. Environmental Technician summer student for 2008 and 2009 -** This position was required to provide assistance to address the increased legislated requirements and ongoing workload related to implementing, managing and maintaining environment management systems.

For each position added since 2005 workload in each department and area was reviewed in detail by senior management. Each position was considered essential.

Yukon Energy Corporation
January 2009



January 2005