aeso
ALBERTA ELECTRIC SYSTEM OPERATOR

Making Connections

Achieving Commitments

2009 ANNUAL REPORT

Our Vision

The Alberta Electric System Operator is seen as a key contributor to the development of Alberta and the quality of life for Albertans through our leadership role in the facilitation of fair, efficient and openly competitive electricity markets and the reliable operation and development of the Alberta Interconnected Electric System.

Our Mission

The Alberta Electric System Operator facilitates a fair, efficient and openly competitive market for electricity and provides for the safe, reliable and economic operation of the Alberta Interconnected Electric System.

Our Values

INTEGRITY: We conduct business with the highest standards of ethics. Honesty, transparency, respect and fair play will be exercised in our relationships with employees, business partners, market participants, and all Albertans.

LEADERSHIP: We are prepared to take strong stands when warranted that balance the interests of our stakeholders. Balanced decisions must be made at the most practical level within the organization, based upon pre-defined principles including advancing the public interest, facilitation of competitive markets, ensuring continued reliability of the Alberta Interconnected Electric System, and adherence to all applicable legislation, regulations and standards. We have confidence in our team and therefore listen and share ideas freely, and welcome scrutiny.

INNOVATION: We continuously look for ways to make improvements in how we carry out our business. We question existing practices while understanding and respecting the reasons why they exist. We strive to evaluate alternatives and choose the best way given practical constraints.

COLLABORATION: We are active listeners who share information candidly with our colleagues and stakeholders to facilitate fair and balanced decision making. We proactively work with stakeholders to develop well thought out, robust solutions, while maintaining our rights as the final decision maker. We encourage open and candid discussions within the AESO.

QUALITY: We assure that our work is of high quality, delivered within an acceptable timeframe and in a cost-effective manner. Diligence is exercised through the conduct of our work by ensuring that the appropriate level of analysis is conducted in all instances. We keep things as simple and practical as possible.

Table of Contents

AESO Core Business Areas

We are an independent, not-for-profit organization with a mandate to plan and operate Alberta's power grid and wholesale electricity market for the benefit of all Albertans.

Electric System Development

The AESO is responsible for assessing the current and future needs of market participants and planning the transmission system to meet those needs. We utilize a credible and effective process for system planning that proactively identifies, plans, achieves approvals for and initiates the timely implementation of system reinforcements.

Electric System Operations

The AESO directs the safe, reliable and economic operation of the AIES and operates the market in a fair, efficient and openly competitive manner. This is achieved by ensuring compliance with all market rules and reliability standards, and maintaining an appropriate set of system operating limits and procedures.

Market Development

The AESO is responsible for facilitating the development of the competitive wholesale market for electricity, including financial settlement. We develop market rules that assure a predictable market structure and provide a reliable price signal for producers, consumers and investors.

Customer Access Services

The AESO is responsible for ensuring customers have access to the transmission system and electricity market. The goal is to deliver high quality connection and market access services in an efficient manner that meets both the customer's needs and the requirements of the Alberta Interconnected Electric System (AIES).

Message from the Chairman

Harry Hobbs
Chairman

A Message to All Albertans

I am very pleased to report to Albertans on some of the highlights of corporate activities that occurred in 2009 as well as the organizational focus for 2010 and beyond for the Alberta Electric System Operator, also known as the AESO.

2009 proved to be a year of challenges, success and learnings for the AESO in advancing our objectives to enhance the state of the electric industry.

On the transmission front, the AESO developed and filed its Long-term Transmission System Plan. This Plan sets out a long-term vision for transmission in Alberta. New transmission facilities will provide the support necessary to meet forecasted future demand, augment a stretched backbone system, protect the continued veracity of Alberta's competitive market, attract investment and facilitate the connection of generation to assist the province in its ability to meet or exceed its environmental standards and expectations.

Advancements were also made this year in the reconstitution of our customer service and connection function, which calls for less red tape and an efficient, cost-effective process for customers.

Our robust governance structure continues to provide effective oversight of the AESO's activities, including, *inter alia*, strategic planning, risk identification and mitigation, compensation and financial administration. The introduction of the *Public Agencies Governance Act* last year triggered a review of our existing policies and procedures to gauge alignment with the Act. We found that the AESO's governance structure aligns well with most of the new requirements. The AESO will comply with the new legislation, implement a structure which preserves the organization's unique characteristics and pursue best governance practices.

In 2010, the AESO will continue to advance needed transmission and introduce a competitive process for those wishing to build new bulk transmission system facilities. Our planning activities will now turn to an assessment of the transmission system intertie capability with a view to restore that capacity in the short term and consider the long-term potential for new or enhanced connections with other jurisdictions. The AESO's commitment to consultation, our continuing role in public education and knowledge of technological advancements will be important enablers of progress on these fronts.

We also anticipate continuing the focus on facilitating evolution of the market framework as necessary to respond to new or modified circumstances.

AESO accomplishments are the result of an executive and employee team committed to making a better electric system for all Albertans, including consumers and other electric industry participants. The Board appreciates the dedication of the AESO team.

To my colleagues on the Board, I extend my thanks and congratulations on your commitment and resolve to enable the success of the AESO. It has once again been my distinct pleasure to work with you.

To our stakeholder community, I can assure you that our organization will continue to work with every segment involved in the electric business to collaboratively enhance Alberta's reputation as a leader in North America.

April 2010

Message from the President & Chief Executive Officer

David Erickson
President & Chief Executive Officer

As Alberta's electric system continues to evolve, the AESO continues to adapt and contribute successfully to change. Much of what we accomplished in 2009 was the building of a stronger electricity future for Alberta and a stronger organization as Alberta's independent electric system operator.

At the AESO, we recorded a number of achievements that position us well for the future.

An important milestone was the release of our Long-term Transmission System Plan – a detailed analysis of what parts of the grid must be strengthened to keep pace with the province's growth. Together with the *Electric Statutes Amendment Act, 2009*, this Plan lays the foundation for much-needed transmission improvements to meet Alberta's current and future electricity needs.

In addition to strengthening the grid, our other key priorities – ensuring reliable market and system operations and delivering excellent service to customers – were also areas where we built a foundation that should serve us well in the years to come.

In 2009, we completed a multi-million-dollar project to replace our energy management system. This major renovation provides advanced tools and technology that will enable our system operators to achieve new efficiencies from the transmission system and further enhance market systems.

On the market side, a top priority has been enhancing rules and procedures that contribute to the safe, reliable and economic operation of the electric system. We developed improved market rules for transmission constraints management and dispatch compliance. We filed new reliability standards with the Regulator, and introduced reports that provide more transparent information to market participants, supporting the new Fair, Efficient and Open Competition Regulation.

We also improved customer service by substantially redesigning the customer connection process. The result is an innovative change to how we connect load and generation customers to the grid. When implemented in 2010, we expect to see faster connections while maintaining the same standards of high quality.

Within our own organization, 2009 was a transition year in which we increased our focus on organizational effectiveness, clarifying roles and responsibilities. There is still much to do but we've laid solid foundations that will lead to significant efficiencies in the future.

Looking back over the last year, we're proud of our achievements. But we also recognize that a lot of work remains. The AESO can, and must, continue to provide leadership in operating Alberta's electric system and marketplace. Our priorities over the next year are clear. Building on the successes of the last year, we will:

- advance planning to address transmission needs.
- develop new market rules and procedures.
- take steps to integrate more wind power onto the grid.
- prepare for possible new connections with other electricity jurisdictions.
- increase expertise in emerging technologies.
- continue to strengthen our information technology platforms.

Alberta's electricity industry is evolving, and so is the AESO. We are taking actions to deliver reliable power, reliable markets and reliable expertise as we fulfil our mandate and build stronger working relationships with our stakeholders.

In closing, I extend my appreciation to our employees, past and present, for their commitment, professionalism and integrity. Thanks to their hard work and vigilance, we continue to build the foundation of a better, brighter electricity future for Alberta.

April 2010

Year in Review

This section looks back over the last 12 months to provide information about the AESO's significant accomplishments in 2009. We also summarize efforts to fulfil our mandate and achieve strategic and operating objectives in key function areas.

ELECTRIC SYSTEM DEVELOPMENT

Long-term Transmission System Plan released

Alberta has had only one major transmission upgrade since the late 1980s. Since then, the province's population and economy have continued to grow, increasing the need for more power. Our forecasts indicate that about 11,500 megawatts (MW) of new generation – nearly equivalent to the current amount of electricity that can be produced today – will be required over the next two decades to meet forecast demand.

Today's system is stretched to its limits and the task of delivering electricity to the people, businesses and industries that power Alberta's prosperity is becoming more and more difficult. Critical reinforcements are needed to handle the extra power that will assure system reliability and facilitate a competitive market.

The AESO is responsible for planning the capability of the transmission system to meet those demands. In June 2009, we filed our Long-term Transmission System Plan (Plan) with the Alberta Utilities Commission (AUC). This comprehensive Plan identifies five critical projects that are required in the near term to meet Alberta's current and future electricity needs:

- two 500 kilovolt (kV) direct current (DC) lines between Edmonton and Calgary.
- a 500 kV double circuit alternating current (AC) line between Edmonton and the Industrial Heartland area northeast of Fort Saskatchewan.
- two single circuit 500 kV AC lines between Edmonton and Fort McMurray.
- facility improvements, including an additional substation, to strengthen the system in and around Calgary.
- new transmission development in southern Alberta to connect new wind farms.

Combined, the five projects will cost an estimated $8.1 billion, of which $5.6 billion has been approved under the *Electric Statutes Amendment Act, 2009*. The AUC approved approximately $2 billion of the remainder in 2009, with the balance expected to be reviewed by the AUC in 2010. The costs for these five projects will result in an increase of about $8 a month to the transmission charge on a typical residential customer's bill after the projects are completed.

The Plan also includes additional transmission infrastructure projects that are planned for the future and will be constructed subject to on an ongoing review of need. These include upgrades and regional projects as well as potential intertie projects to improve the electric system's connections with neighbouring provinces and states.

Extensive planning, technical work and stakeholder consultation is underway on some of these projects. We are supporting transmission facility owners (TFOs) in preparing facility applications by attending open houses and other public meetings to provide information on the projects and our Long-term Transmission System Plan.

Electric Statutes Amendment Act (2009)

In November 2009, the *Electric Statutes Amendment Act, 2009* was passed into law. This law enhances the needs approval process by giving the government authority to approve the need for transmission infrastructure projects which are determined to be critical to the province.

Under the law, the government approved the need for four critical transmission projects identified in our Long-term Transmission System Plan. One critical project was not covered – new transmission development in southern Alberta – since the project was already in the regulatory process. The AUC granted approval for the need for this project in September 2009.

While the government may approve the need for some critical transmission infrastructure projects in the future, the regulatory siting process continues to require AUC approval.

Consultation for Edmonton to Calgary project

Two new 500 kV DC transmission lines are required to create a stronger system between Edmonton and Calgary. The estimated $3.1-billion project will strengthen the backbone of the transmission system by improving reliability, enabling development of new power generation and facilitating a competitive electricity market. This project is also expected to significantly reduce transmission system losses and associated costs.

The new lines will use high voltage direct current (HVDC) technology. This new-to-Alberta technology will transport large volumes of power more efficiently than traditional AC lines and facilitate expansions of capacity. Adding capacity between Edmonton and Calgary will also increase our ability to control power flow in both directions, providing an important way for us to manage the variability of wind-generated power on the grid.

Feedback received as a result of the AESO's extensive public consultation on this project contributed to amendments to the planning process, including staging the capacity increases and the establishment of a cost oversight committee.

The TFOs, AltaLink and ATCO Electric, are preparing facility applications for the west and east routes respectively. Public consultation on different route options is underway, and the TFOs plan to file their respective facility applications with the AUC in late 2010 or 2011.

Advancing reinforcement for the Industrial Heartland

Demand for electricity in the Industrial Heartland region is growing due to residential, commercial and industrial growth. Our plans to reinforce the regional transmission system call for construction of a double circuit 500 kV AC line, which will connect the region to existing 500 kV transmission facilities. The estimated cost of this project is about $387 million.

In 2009, the TFOs, AltaLink and EPCOR, advanced project development, starting with detailed line routing and public consultation. They plan to file a facility application with the AUC in mid-2010.

A group of stakeholders has expressed strong interest in having a portion of the project built underground. In response, we commissioned an independent third-party study to examine the feasibility of placing the 500 kV line underground for 10 km and 20 km sections. The study was completed early in 2010 and results indicated the application of a 500 kV underground cable system is technically feasible with the condition that further testing be conducted to validate the feasibility of the cable and its accessories in Alberta's cold weather conditions.

The AESO will continue to study, analyze and monitor industry developments in 500 kV underground transmission. The AUC will make the final decision regarding the location of the line and the applicability of using underground transmission as a way to mitigate siting concerns.

Developing a competitive bid process for the Fort McMurray project

The oilsands industry is expected to continue to grow, driving the need for new electricity infrastructure in northeastern Alberta. Our Plan calls for two new lines to serve oilsands projects and carry power from industrial cogeneration plants to Alberta consumers. These involve a 500 kV AC line from an area west of Edmonton to a new 500 kV substation in the Fort McMurray area, and a 500 kV AC line from the new Heartland substation to the new Fort McMurray 500 kV substation. Construction of this project will be staged as needed.

In 2009, we began developing a competitive bid process to select the TFO to build this $2-billion transmission reinforcement. We plan to award a contract in 2011.

Studying options for south Calgary

We are recommending various options, including a new substation, to upgrade the system in and around Calgary so it can carry additional electricity and provide stronger connections and power service to city residents and nearby municipalities. The provincial government has approved the need for a new 240 kV substation in south Calgary. However, we must submit plans to the AUC for 240 kV and 138 kV transmission lines to interconnect this facility to a number of substations in Calgary.

Southern Alberta Transmission Development

Currently, there are approximately 600 MW of installed wind power capacity on the transmission system. However, we forecast an additional 1,200 to 2,700 MW of new wind development in southern Alberta over the next decade. Substantial improvements are required as the need to move electricity out of the region exceeds the existing transmission capacity.

In September 2009, the AUC approved our Needs Identification Document (NID) for the Southern Alberta Transmission Reinforcement. This project involves building a 240 kV AC looped system with three stages of implementation between 2013 and 2017, depending on development of the market for wind power in the region. The cost of the first stage is about $750 million, with the costs for all phases estimated at $2 billion.

In 2009, the TFO, AltaLink, began public consultation on potential routes for the system and plans to file a facility application in 2010. Construction could begin later in the year.

Regional upgrades

In 2009, we filed 34 NIDs seeking regulatory approval of the need to reinforce the system. Of these, we received approval for 17, while the others are still under review by the AUC. Those approved include one major system project – the Southern Alberta Transmission Reinforcement – as well as other regional projects and connections for customers and distribution facility owners.

One of the NIDs filed in 2009 was for a $1-billion transmission reinforcement in the Hanna area in east central Alberta. We recommend construction of both 144 kV and 240 kV transmission lines to supply power to pipelines being developed in the area. The lines would also connect up to 700 MW of wind power proposed in the region over the next decade. If approved, the project would be developed in two stages, with stage 1 planned for 2012. The AUC held a public hearing on the application in early 2010 and is expected to deliver its decision on the NID in spring 2010.

To keep pace with continued growth in load and generation in Alberta and to enhance reliability, several other transmission upgrades were completed in 2009. These included:

- a new 240 kV transmission line into the Northwest region.
- two new oilsands connections in the Fort McMurray area.
- several 138/25 and 144/25 kV transformer additions to serve increased distribution loads throughout the province.

Continuing focus on additional intertie capacity

Interties are transmission lines that connect Alberta to our neighbours and allow us to import and export power. With two interties – one with British Columbia (B.C.) and the other with Saskatchewan – the Alberta Interconnected Electric System (AIES) is one of the least interconnected jurisdictions in Canada. In addition, both interties are operating under their rated capacity due to congestion on the intra-Alberta transmission system.

Alberta has been a net importer of electricity since 2002. The amount of power that can flow over the interties will remain limited until the province's backbone transmission system is reinforced. One of the critical projects identified in our Long-term Transmission System Plan is a major reinforcement between Calgary and Edmonton. Approved by the provincial government in 2009, this project will help reduce congestion on the entire system and assist us in restoring the B.C. intertie to its original intended capacity for imports and exports.

We are also working on other initiatives to restore intertie capacity. For example, our plan to bring the Saskatchewan intertie up to rating was included as part of the Southeast Alberta Transmission Development. The AUC approved the project in 2009 and it is expected to go into service in 2011.

Merchant interties

We continue to work with companies that are proposing merchant transmission lines to connect Alberta to external jurisdictions. Our responsibility is to make sure these projects are safely and reliably connected with Alberta's transmission system, and to identify any direct benefits that could be delivered to the province.

Montana Alberta Tie Ltd., a Calgary-based energy transmission company, is building a 230 kV, 345 km transmission line between Lethbridge and Great Falls, Montana. When completed in 2011, it will be the first intertie between Alberta and the United States, and will enable development of new energy projects in both regions. The project developer will be responsible for construction costs and will look to recover costs from those using the line to transport power into and out of Alberta.

Building a more integrated approach to transmission development projects

We continually look for new ways to improve customer service, including facilitating timely development of required transmission projects. In early 2010, we established two transmission project delivery teams, one serving projects in northern Alberta and the other southern Alberta. Each team will be responsible for bulk, regional and customer transmission projects in their geographic area, from inception through to commissioning, and will be supported by dedicated project managers and technical resources. This new structure streamlines the project delivery process by providing timely, efficient results for connection customers.

Improved customer connection process

Our goal is to deliver high-quality connection and market access services in an efficient manner that meets both the customer's needs and the requirements of the AIES.

In response to feedback from customers, we have worked with the AUC, TFOs and customers to develop a streamlined process that will result in quicker connections to the grid. Under the new process, customers will be responsible for completing connection proposals, including detailed design work. This change will provide our customers with more control over the pace at which their projects progress, while enabling our organization to increase its focus on project management and governance, using clearly defined standards and criteria to guide the process from start to finish and endorse the final connection. The AESO acknowledges the support and participation of our customers through the connection process redesign. We are committed to working collaboratively with customers to improve efficiencies, and we plan to introduce the new process in 2010.

ELECTRIC SYSTEM OPERATIONS

Mandatory reliability standards

The North American Electric Reliability Corporation (NERC) has led a major initiative in the United States to implement mandatory reliability standards in the electricity industry. Alberta's system is connected to the U.S. Pacific Northwest via the transmission intertie with B.C. and to the mid-continental U.S. market through the intertie with Saskatchewan. The AESO is in the process of creating a made-in-Alberta set of reliability standards by adopting, rejecting or modifying NERC reliability standards to suit our operating environment. These reliability standards identify compliance obligations for market participants and for the AESO, and help assure the reliability of the AIES.

The AESO Reliability Committee is a collaborative effort with industry to assure the reliability standards are appropriate for Alberta and that the responsibilities are clearly defined. We have also formed working groups with generation and transmission facility owners and operators to assure that reliability standards adopted are consistent with the intent of the NERC reliability standards while recognizing any structural and operating differences in Alberta.

In 2009, the AESO and its stakeholders made considerable progress by developing a project plan to review 116 mandatory reliability standards in 2009/2010. As a result, we developed and filed 58 reliability standards with the AUC and received approval for 48 in 2009 and the remaining 10 in early 2010.

Introduced new compliance programs for standards

Market participants' compliance with Alberta reliability standards is a key element of system reliability. In 2009, we introduced a comprehensive compliance monitoring program that involved registration, self-certification and regular audits to assure participants adhere to applicable reliability standards. We have also undertaken an internal compliance monitoring program for reliability standards that apply to the AESO to make certain our organization holds itself to the same level of accountability.

Integration of wind power

Alberta has taken a leadership role in finding ways to integrate more wind generation into the power system. Currently, Alberta has the third largest amount of installed wind power in Canada. A substantial amount of potential new wind power is also in various stages of development.

There are 12 operational wind farms in Alberta representing approximately five per cent of the province's total installed capacity.

To further integrate more wind on the grid, we are working with industry to advance the Market and Operational Framework for Wind Integration. This framework forms the foundation for initiatives to further refine rules, tools and operating practices without compromising system reliability or the fair, efficient and openly competitive operation of the market.

Highlights of our actions to integrate wind power in 2009 included:

- We released our Long-term Transmission System Plan, which accommodates potential for renewable energy sources such as wind. One of the projects identified in the Plan and approved by the AUC is the Southern Area Transmission Reinforcement, which will accommodate up to 2,700 MW of wind-generated electricity over the next decade.
- We developed a wind power facilities technical requirement rule after consulting with an industry working group and wind turbine manufacturers. Power suppliers will employ technologies, such as system controls, to control or curtail power to balance supply and demand on the grid. A draft version of this rule was distributed to stakeholders for review in late 2009.
- We undertook a study to better understand the impact of adding wind power on the electric system and the electricity market. To be completed in early 2010, the study will provide valuable new information on the impacts of adding a highly variable energy resource and the available options, such as the use of ancillary services, to maintain system reliability.
- We issued a request for proposal for a centralized wind forecasting service for Alberta. This tool will allow the AESO to accommodate the variable nature of wind and enable more wind power to be added to the Alberta electricity system. The technology, for example, will enable the system operator to better anticipate the amount and timing of wind generation available to the grid, in turn helping to determine operating reserves required to back up wind power. At yearend, we selected a vendor to operate the forecasting program. The service is expected to be launched in early 2010.
- We conducted an outreach program with wind developers in the connection queue to improve our understanding of their state of readiness to build new wind power facilities in the province. This resulted in a total generation capacity of about 8,100 MW in the queue at yearend.

Playing a key role in NERC renewable energy study

As interest in renewable energy continues to grow in Alberta and around the world, electric system operators in Canada and the United States are addressing the challenge of how to integrate significant amounts of wind and other forms of variable generation into electricity grids while ensuring system reliability.

In 2009, we chaired and contributed to a major study by the NERC on integrating renewable energy into electricity grids across North America. The report identified key recommendations that will serve as a roadmap for integrating large amounts of renewable energy into North America's future generation portfolio. Being involved in the NERC effort is part of our commitment to seeking and applying best industry practices in Alberta and, in turn, sharing learnings with the North American electricity industry.

MARKET DEVELOPMENT AND OPERATIONS

Developing operating practices and procedures

We provide a number of rules and procedures for transmission customers and market participants so they have the information to guarantee compliance with AESO requirements. These documents include operating practices and procedures and are a critical component of how we assure safe, reliable and economic operation of the AIES.

In 2009, we filed long lead time energy rules with the AUC. These rules provide clear guidance for system operators and market participants when long lead time generating units are called upon during supply shortfall events. The rules define under what circumstances the units can be called into service and under what payment terms.

During the year, we also continued to develop new rules:

- **Transmission constraints management:** Constraints management rules are being developed for the system operators to use to manage constraints on the transmission system in real time. After the rules were reviewed with stakeholders at an AUC hearing in 2008, a number of areas for improvement were identified. In 2009, we developed recommendations to address the findings and we plan to file revised rules in 2010.
- **Remedial action schemes:** These are automatic systems installed on the transmission system to protect system reliability. In 2009, we posted a discussion paper and responded to stakeholder comments. Draft rules will be issued in early 2010.
- **Dispatch compliance:** As part of managing minute-by-minute balancing of supply and demand on the grid, the system operators dispatch generators according to the energy market merit order. Rule 6.6, Pool Participant Non-Compliance with Energy Market Dispatches, was revised, filed with the AUC, and implemented in 2009. The new rule provides clarity on allowable dispatch variance, ramping and compliance exceptions on energy market dispatches.
- **Demand response:** We are studying different ways load customers (demand) can play a greater role in the electricity market, thereby helping to manage the supply-demand balance and contribute to system reliability. This study has involved a review of in-market price responsive load and out-of-market demand response alternatives to increase load participation in the market and coordinate requirements for load shed service and load curtailment. In late 2009, we developed a discussion paper on demand response options and distributed it for stakeholders to review. Based on feedback, we plan to implement some of the demand response options in 2010.
- **Market suspension:** We are obligated to assure market processes are in place to identify extraordinary situations and take appropriate action. As a result, we are revising the market suspension rule that identifies triggers and market outcomes in the event of a market suspension. We plan to issue a draft rule for review in 2010.

Supporting *Fair, Efficient and Open Competition Regulation*

Public policy for Alberta's electricity market requires that all market participants conduct themselves in a manner that supports the fair, efficient and openly competitive nature of the market, as set out in section 6 of the *Electric Utilities Act* (EUA).

In September 2009, the Alberta government passed the *Fair, Efficient and Open Competition Regulation* (FEOC Reg) to bring more clarity to section 6 of the EUA. This calls for greater transparency of information to market participants and more communication on what is considered appropriate conduct for market participants.

In 2009, we undertook a number of key initiatives to comply with this new regulation.

- To provide greater transparency to market participants, we introduced new reports on our website for market participants. We are now publishing, on an hourly basis, snapshots of the energy market, dispatch down service and ancillary services merit orders. The reports show the energy available to be dispatched by the system operators at regular intervals throughout the day. The AESO has also begun publishing a daily Load Outage Report that reflects decreases in the capability of market participants to consume electric energy.
- We held information sessions to explain what the regulation means to market participants and the AESO. We also published an information document on the regulation that helps market participants understand the necessity for associated independent system operator (ISO) rule changes, and to provide clarity on how the AESO has and will implement some process and administrative changes necessary as a result of the FEOC Reg.

Developed 2010 General Tariff Application

Tariff applications set rates, riders, terms and conditions when providing system access service to customers. The costs of operating the transmission system are recovered through the tariff, approved by the AUC, and are structured to support a competitive market and achieve fair allocation of costs among stakeholders.

In 2009, we developed the 2010 General Tariff Application. Working groups, consisting of employees and external stakeholders, provided expertise and comments on different topics for the application. Based on feedback, the new tariff includes:

- changes to accommodate the new customer connection process developed in 2009.
- revisions to import and export tariffs.
- a wind forecasting service cost recovery tariff.
- changes to allow better matching of actual operating reserve costs and revenues in the rates.

We filed the application with the AUC in early 2010.

Improving management of authoritative documents

In our role as the system and market operator, we maintain a set of authoritative documents that includes binding obligations for market participants and the AESO. Through the transition of authoritative documents project, we have developed an enhanced management framework for managing these documents. This new approach will assure the AESO's authoritative documents are consistent in format and structure, have clear definitions of obligations and requirements, and eliminate duplication between documents. In 2009, the first 15 documents were transitioned to the new framework and format, and 14 of these were filed with the AUC. Some 300 documents will go through this process over the life of this multi-year project.

Refining the market for ancillary services

Ancillary services support the reliable operation of the transmission system as it moves electricity from generating sources to customers. We buy and provide these services as an essential element of operating the system and maintaining grid reliability.

At the end of 2009, there were 18 participants in Alberta qualified to offer into the operating reserves market. During the year, we procured over $104 million dollars of operating reserves.

We are planning to continue the redesign of the operating reserves market in order to improve transparency and simplify the design. In addition, we will begin consultation on the development of ISO rules for the operating reserves market. Our goal is to complete this initiative in 2011.

Advancing discussions on intertie capacity

The Provincial Energy Strategy and the AESO's Long-term Transmission System Plan identify potential intertie projects that could improve Alberta's connections with neighbouring provinces and states. As well, a new merchant intertie project between Alberta and Montana is in development.

We are planning new market rules and procedures to prepare for the possibility of new interties as early as 2011. In 2009, we examined other electricity jurisdictions to assess products, rules and business practices that could be used in Alberta to enhance and expand intertie connections to other electricity markets. The AESO released an intertie restoration discussion paper in early 2010, and public consultation will begin later in the year.

INFORMATION TECHNOLOGY

New energy management system completed

The energy management system (EMS) is the engine of our system control centre. It enables our system operators to perform real-time activities such as balancing supply and demand, monitoring the status of the provincial electric system, and performing reliability assessments 24 hours a day, seven days a week, 365 days a year.

In late 2009, we completed the first phase of an approximate $20-million project to replace the 11-year-old EMS, which was nearing the end of its operating life. The second phase is targeted for completion in late 2010. The new system provides our system operators with the tools and technology to meet the evolving needs of Alberta's power system and market, which continue to become more diverse and complex. The new system will allow us to take advantage of advanced applications and become more proactive in operations planning, managing the transmission system on a time-ahead basis to better predict issues, and increase operating efficiencies. The updated EMS also meets new industry standard security compliance requirements and provides for enhanced integration with other systems used for managing the AIES and Alberta's electricity markets.

Enterprise integration

It was a significant endeavour to implement the EMS and effectively integrate it with the rest of the AESO's market and compliance systems. The AESO invested in an enterprise application integration (EAI) platform to complete the project and position the organization for future application and data integration demands.

PI Historian upgrade

PI Historian plays a significant role in the analysis and reporting of grid and market operational information. In addition to upgrading the EMS, we also successfully upgraded our investment in this technology to assure it guarantees the security of our information and continues to meet the needs of our business.

Developed dispatch decision support tool

Our system operators rely on complex systems, tools and procedures to assure reliable operation of the grid and market. In 2009, we developed a system operator system, called the dispatch decision support tool, and completed testing late in the year. Using real-time data, this tool helps the system operator make consistent, effective decisions on balancing supply and demand on the system. The tool is especially valuable in managing the variability of wind as we integrate more of this generation source on the grid.

When fully implemented, the dispatch decision support tool will further improve our ability to manage the volume and timing of energy market dispatches. This technology provides our system operators with real-time information on a variety of critical market factors, including energy market offers, energy market ramping capabilities, regulating reserve capability, forecast load and connection schedule activities.

Established plan for IT improvements

In 2009, we consulted with market participants to discuss their concerns about information systems that support the electricity marketplace and learn more about their business requirements. Based on feedback, we developed an action plan of short-term and long-term improvements. In 2010, we will implement the plan, focusing on changes required in the near term. The first of these improvements is the upgraded Dispatch Tool due to be operational in the summer of 2010.

Core infrastructure upgrades

2009 also saw the AESO invest in core infrastructure upgrades for its network, servers and storage. The largest of these was a database architecture consolidation to support the organization's enterprise information management objectives and growing data management needs. The AESO has progressed significantly in establishing a capable and mature organization ready to adapt to the ever increasing pace of technological evolution and fulfill its mandate to operate Alberta's power grid and wholesale electricity market for the benefit of all Albertans.

Other Key Initiatives

EDUCATIONAL PARTNERSHIPS

The AESO is dedicated to promoting power engineering as a dynamic career choice. One way we do this is by establishing and supporting relationships with educational institutions across the province. In 2009, we strengthened our commitment to two existing partnerships and made significant strides towards formalizing two others.

Since its inception in 2007, the AESO has been a member of the Alberta Power Industry Consortium, which also includes AltaLink, ATCO, EPCOR, FortisAlberta and the University of Alberta, and is sponsored by the Informatics Circle of Research Excellence (iCORE) and the Natural Sciences and Engineering Research Council of Canada (NSERC). The consortium's goal is to bring power companies together, with the University of Alberta as the coordinating body, to solve technical problems of common interest, produce more power engineering graduates, support the professional development of current employees, and promote technical cooperation and exchange in the power engineering community. The AESO has committed $200,000 to the consortium over a five-year period. In November 2009, the consortium held its second annual Power and Energy Innovation Forum at the University of Alberta.

Our partnership with Calgary's SAIT Polytechnic is another successful collaboration that continues to benefit both the AESO and students. Our partnership is based on training and developing future system operators and includes AESO employees training students, apprenticeships and a sponsorship program. Two first-year students from this program worked at the AESO throughout the summer of 2009, and we continue to employ and train two graduates.

We also allocated more funds to increase the AESO's presence in SAIT Polytechnic's Electrical Engineering Technology (EET) Program. This included sponsoring the EET awards banquet as well as industry nights that allow AESO employees and students to discuss the program and industry.

In addition to these established partnerships, in 2009 we led development of a new consortium at the University of Calgary. This collaboration will focus on state-of-the-art research, curriculum development, student interaction and information exchange related to power engineering. We have made significant progress and anticipate the group will be formalized in 2010.

In the past year, we also initiated a new partnership with the Universities of Victoria and British Columbia to provide support for student events.

Throughout 2009, the AESO provided real-life job training for nine engineering co-op students. This experience led to three of the nine being hired as engineers-in-training while several other engineers-in-training continue to be trained and employed with the AESO in various capacities.

In keeping with our public interest mandate, we provide Albertans with factual and unbiased information about the operation of the electricity industry and key participants. We also consult with Albertans on different options to improve the AIES and Alberta's electricity market.

REACHING ALBERTANS

Promoting public education and awareness

In 2009, we continued to inform Albertans about the importance of electricity to the province's economy and the increased need for transmission lines to sustain system reliability. We also increased our efforts to communicate the role the AESO plays in supporting a competitive electricity market and operating the electric system in a reliable, safe and economic manner. This is achieved through our commitment to a public education program that also creates awareness of the AESO's role. In 2009, the AESO continued to help Albertans understand the need for transmission reinforcement.

The AESO's commitment to energy literacy continued through our educational magazine, *Powering Albertans*. Entering its fourth year, the publication focuses on boosting public awareness about key issues in the electricity industry. In addition to creating and raising awareness of the AESO, content was based on feedback from focus groups, reader surveys, and formal and informal polling. Features included *Electricity and the Economy, Powering Industry, Making Cents of Your Electric Bill* and *Power Facts*. The magazine was delivered to approximately 1.3 million Alberta households through a combined mail drop/newspaper insertion.

In late September 2009, we launched public education websites (www.poweringalberta.com / www.poweringalberta.ca) to provide the public with a reputable, independent source of information about Alberta's electricity system. Fact sheets and other materials are posted on the websites that address topics such as wind power, electricity import and export, paying for transmission, and changes that would become law with the passage of the *Electric Statutes Amendment Act, 2009*. The websites encouraged stakeholders to submit questions or concerns, and the AESO uses this feedback to inform future publications and outreach activities.

Our ongoing public education program continued to raise awareness of proposed transmission projects and direct Albertans to the AESO's websites for more information. Two newspaper ads were featured in the fall in daily newspapers and community weeklies throughout the province, and radio advertisements aired across Alberta in the fall. We also developed and distributed opinion-editorial articles to more than 100 weekly and community newspapers.

Surveying Albertans about electricity issues

We regularly commission independent third-party surveys to measure Albertans' awareness of electricity issues and the AESO. In August and November 2009, we commissioned IPSOS Reid to conduct surveys of Alberta residents.

Research conducted in November showed:

- 62 per cent of respondents had heard or read about the challenges facing Alberta's electricity system, compared with 45 per cent in August.
- 74 per cent said they believe the AESO is meeting the current electricity needs of Albertans.
- 72 per cent believe the work of the AESO assures the reliability of Alberta's electric system.

Stakeholder Engagement

We continued to engage Albertans through our consultation programs, which are built on the fundamental principle that all stakeholders have the opportunity to comment on, and be informed of, the AESO's plans, decisions and actions in a timely way.

Extensive public consultation is conducted when considering proposals to develop or expand the transmission system. Consulting with stakeholders – the general public, elected officials, industry, consumer groups and others – provides broad input into our planning process on topics such as geographic options, potential technologies, and environmental and social considerations. To engage Albertans, we use various methods like open houses, town hall meetings, small group meetings, newsletters and electronic media.

From 2007 to 2009, the AESO hosted or supported more than 150 open houses, attended about 190 meetings with municipalities or small stakeholder groups, and met directly with more than 9,500 stakeholders. These forums provided an important opportunity to discuss the need for transmission upgrades and review different options in our Long-term Transmission System Plan.

Formal consultation programs are also in place to help us develop plans for local or regional transmission systems. For example, in 2009 we consulted with stakeholders on transmission plans for the Hanna region in east central Alberta. Open houses enabled residents to learn more about transmission alternatives under consideration and share concerns. We used feedback to further develop our plans for the Hanna reinforcement before filing our application with the AUC in 2009.

Since 2007, we have also carried out consultation on our proposed plans for transmission reinforcement in the Industrial Heartland area northeast of Fort Saskatchewan. This consultation showed stakeholders wanted more information about having a section of transmission line built underground. In response, in 2009 we commissioned an independent technical study to look at the feasibility of building a section of the line underground.

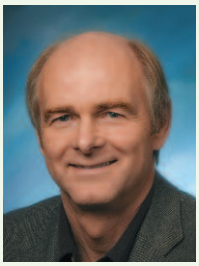
Regional Advisors

Our Regional Advisor Program has been in place for over two years now. Our advisors bring diverse backgrounds that range from government to industry to education. They represent six regions that cover the province and provide the AESO with feedback and suggestions on our corporate initiatives and an understanding of how we can improve our efforts to educate and inform Albertans about the electricity industry. We have been working successfully with our advisors to incorporate their expertise and knowledge into our outreach programs, consultation processes, communication and organizational initiatives.

Jim Graham
High River

Tony Hladun
Camrose

Jim Horsman
Medicine Hat



Sandy McDonald
Grande Prairie

Keltie Paul
Fort McMurray

Ross Risvold
Hinton

Jim Graham High River
Mr. Graham has 34 years experience in education as a teacher and school and district administrator. He has contracts with several Alberta school districts and post-secondary institutions. He has served as Director for the Calgary Regional Consortium, Regional Chairperson for Headwaters Student Health Partnership and is a founding member of the Curriculum Leadership Group – Foothills Schools Division. Mr. Graham has served on several community boards including Literacy for Life and the Town of High River Planning Commission.

Tony Hladun Camrose
Mr. Hladun is a retired engineer with 31 years experience including 26 years in senior management. For most of his career Mr. Hladun was involved in consulting and pipelines with Monenco and NOVA. He then joined an engineering software company focused on automation and controls for utility clients. Mr. Hladun has served as the Director of the Battle River Community Foundation and President of the Calgary Chapter of the American Association of Cost Engineers and has been involved with the Rotary Club of Camrose.

Jim Horsman Medicine Hat
Mr. Horsman is a lawyer with extensive experience in government, education, business and negotiation. He served five consecutive terms (1975 to 1993) for Medicine Hat in the Alberta Legislative Assembly, holding various portfolios including Federal and Intergovernmental Affairs and Deputy Premier. Mr. Horsman also served as Alberta's lead minister for all international trade issues and for all Canadian constitutional issues between 1982 and 1992. He is Chancellor Emeritus of the University of Lethbridge and a Member of the Order of Canada and the Alberta Order of Excellence.

Sandy McDonald Grande Prairie
Mr. McDonald has been a self-employed businessman for over 35 years and is currently active in the development and sales of commercial real estate. He has a diverse background in construction, real estate development and sales, and the mortgage industry. Mr. McDonald has served as a Board Member of the Grande Prairie District Agriculture Society, past Chair of the Grande Prairie Sustainable Housing Authority and as an Advisory Board Member for the Alberta Real Estate Insurance Exchange.

Keltie Paul Fort McMurray
Ms. Paul is a seasoned health promoter with experience in development and delivery of community-based programs throughout northern Alberta. She has worked in the public health system and non-profit agencies focusing on public education, psycho-education and community development. Ms. Paul has extensive experience serving on many committees and boards, and currently sits on the Region 4 Health Council. Her past committee work includes Chair of the Advisory Group for the Alberta Centre for Active Living, and member of the Alberta Traffic Safety Fund Grants Committee.

Ross Risvold Hinton
Mr. Risvold has 12 years experience in municipal government including as Mayor of Hinton. He works with elected officials from Canadian resource, rural, remote (R3) communities and has consulted for over 30 years. Mr. Risvold was the Director of Special Projects, West Yellowhead Community Futures Development Corporation, General Manager for Banff Centre for Management and Member, Board of Directors for the Federation of Canadian Municipalities. Mr. Risvold received the Governor General of Canada 125 Commemorative Medal and two Premier's Awards of Excellence.

Corporate Governance

Governance is a philosophy, an approach and a process. The AESO's governance structure, policies and practices are driven by the vision, mission and values of the organization.

Fundamental to governance is the clarity it brings to accountability and the roles of the AESO Board, executive, management and employees.

The AESO's structure provides for a strong governance model. The AESO's governance model promotes best practices, ethical behaviours, accountability and transparency to stakeholders (internal and external) in its business dealings.

AESO Board

The Independent System Operator operating as the Alberta Electric System Operator (AESO) is a statutory corporation established on June 1, 2003 under the *Electric Utilities Act* (EUA) of the Province of Alberta. The AESO is governed by its legislative mandate and by its Board, which consists of Members appointed by Alberta's Minister of Energy (Minister) under section 8 of the EUA.

The AESO Board is responsible for overseeing the business and affairs of the AESO. The AESO Board is actively involved with the AESO executive in the strategic planning process and discusses and approves the AESO's strategic plan. On an ongoing basis, the AESO Board conducts financial oversight of all corporate operations, including cost and risk management. How the AESO Board conducts its affairs is contained in the AESO Bylaws. A copy of the Bylaws can be found at www.aeso.ca/ourcompany

In accordance with the EUA and Bylaws, the AESO Board must recommend to the Minister individuals to be appointed as Members of the AESO and may recommend to the Minister an individual to be designated as Chair. There are a maximum of nine Members on the AESO Board. The AESO Board and its Committees have the authority to independently obtain and retain consultants or other advisors.

In addition, the *Alberta Public Agencies Governance Act*[1] will provide guidance to assist the effectiveness of the AESO. The AESO is developing documentation to meet certain requirements of this legislation including a roles and mandates document.

AESO Board and Committees

The AESO Board has established three standing committees. Each operates in accordance with its own AESO Board-approved charter and with a view to following best practices.

AUDIT COMMITTEE

The Audit Committee provides consultation, advice and recommendations to the AESO Board on financial reporting matters, systems of internal controls, systems for managing risk, the external audit process and the AESO's process for monitoring compliance with laws and regulations.

[1] Assented to on June 4, 2009; in effect on proclamation.

HUMAN RESOURCES, COMPENSATION AND NOMINATIONS COMMITTEE (HRCNC)

This committee provides consultation, advice and recommendations to the AESO Board with respect to human resources, compensation and member nomination matters. This includes AESO executive compensation levels, AESO President and Chief Executive Officer's performance, officer selection, executive succession planning, human resources programs (including salary planning, benefits and incentive design), and human resources practices.

CORPORATE GOVERNANCE COMMITTEE

This committee provides consultation, advice and recommendations to the AESO Board on corporate governance matters. This includes maintaining and enhancing the AESO's corporate governance practices. It also includes identifying and recommending the criteria and processes for selecting qualified individuals in respect of the composition of the AESO Board and in meeting its statutory duties and responsibilities.

AESO Board Members

The AESO Board Members have extensive knowledge and experience in various industries, including energy, utilities, technology and government. The following are AESO Board Members who served during 2009:

AESO Board Member	AESO Board Member Since	AESO Board Position	Committee Position
Harry Hobbs	2004	AESO Board Chair	Audit, HRCNC[1], Governance
Bill Burch	2003	AESO Board Vice-Chair	HRCNC[1], Audit
Nancy Laird	2003	Member	Chair, Governance; HRCNC[1]
Hugh Fergusson	2007	Member	Chair, HRCNC[1]; Governance
Robert McClinton	2007	Member	Chair, Audit
Walter Nieboer[3]	2007	Member	Audit
Monica Sloan[2,3]	2007	Member	HRCNC[1], Audit
Jan Carr	2009	Member	Audit
Gordon Ulrich	2009	Member	Audit, Governance

[1] HRCNC (Human Resources, Compensation and Nominations Committee): Effective September 2009, the AESO Board approved renaming the Human Resources, Compensation and Governance Committee as the Human Resources, Compensation and Nominations Committee and established a separate committee, the Corporate Governance Committee (Governance Committee).

[2] Effective June 2009; moved from the Audit Committee to the HRCNC.

[3] Resigned effective August 31, 2009.

AESO Board Effectiveness

AESO BOARD EVALUATION

The AESO Board and its Committees have self-evaluation processes in place. The self-evaluation is performed on an annual basis. This self-evaluation is in addition to the performance management process noted on page 22.

MEETING ATTENDANCE

In 2009, the attendance of the Members at AESO Board meetings and Committee meetings was as follows:

AESO Board and Committee Member	AESO Board	Audit	Human Resources Compensation and Nominations[2]	Meeting Attendance	Per cent Attendance
Harry Hobbs	8 of 8	4 of 4	4 of 4	16 of 16	100
Bill Burch	8 of 8	4 of 4	4 of 4	16 of 16	100
Nancy Laird	8 of 8	N/A	4 of 4	12 of 12	100
Jan Carr	8 of 8	4 of 4	N/A	12 of 12	100
Hugh Fergusson	8 of 8	N/A	4 of 4	12 of 12	100
Robert McClinton	8 of 8	4 of 4	N/A	12 of 12	100
Walter Nieboer[1]	4 of 4	2 of 2	N/A	6 of 6	100
Monica Sloan[1]	4 of 4	1 of 1	1 of 1	6 of 6	100
Gordon Ulrich	8 of 8	4 of 4	N/A	12 of 12	100
Attendance	64 of 64	23 of 23	17 of 17	104 of 104	N/A
% Attendance	100	100	100	100	N/A

[1] Resigned effective August 31, 2009.

[2] Effective September 2009, the AESO Board approved renaming the Human Resources, Compensation and Governance Committee as the Human Resources, Compensation and Nominations Committee and establishing a separate committee, the Corporate Governance Committee. The Corporate Governance Committee did not meet as a stand-alone committee in 2009.

AESO COMPENSATION OF MEMBERS

A summary of Member remuneration is as follows:

Chair – retainer	$ 90,000/year
Member – retainer	$ 25,000/year
Vice-Chair and Committee Chair – retainer	$ 5,000/year
AESO Board & Committee meetings	$ 1,000/meeting
Additional AESO business	$ 1,000/day

All reasonable expenses incurred by a Member to attend meetings or incurred by the Member in relation to AESO business or affairs are reimbursed by the AESO at cost.

The total remuneration earned by Members in 2009 was $0.5 million.

REPORT ON EXECUTIVE COMPENSATION

Compensation is designed to attract, motivate and retain AESO employees and to align with and support the AESO's values, overall business needs and human resources strategy.

The AESO's compensation policy and practices (compensation program) is competitive, reflects current market conditions, meets all legislative requirements, and exhibits fairness and equity in pay rates and salary administration.

The AESO administers the compensation program to meet the above criteria by:

- Participating in annual industry total compensation surveys.
- Comparing base pay, employee benefits and other forms of rewards and compensation.
- Tracking and analyzing compensation trends.
- Maintaining information on compensation categories.
- Targeting to the 50th percentile of salary ranges.
- Conducting annual reviews for all employee base pay salaries to determine appropriate salary adjustments.
- Maintaining a performance management process to determine annual increases and short-term incentive payouts for all employees.

The compensation program is designed to be competitive in the marketplace for comparable organizations in the energy industry or other similar organizations. AESO executive compensation, including the President and Chief Executive Officer's compensation, is reviewed by the HRCNC and recommended to the AESO Board for approval on an annual basis. To perform this review, independent market information is obtained and reviewed. Each AESO executive's salary is reviewed in the context of the individual executive's responsibilities and business performance during the year. Annual incentive payments to AESO employees, including AESO executive, are based on organizational and individual performance.

The compensation (salary and incentive) earned by the AESO's President and Chief Executive Officer, Vice-President, Finance and the next three highest paid executives (senior executive officers and Vice-President, Regulatory) was $2.0 million in 2009.

The total compensation, salary, incentive and other annual income earned by all AESO executives was $3.2 million in 2009. Other annual income consists of matching annual employer contributions to the AESO Defined Contribution Pension Plan, retiring allowances and other perquisites.

Governance Practices

The AESO looks to private, public and not-for-profit sectors of industry to provide best business practices. The following are some pertinent governance practices the AESO Board utilizes to provide sound corporate governance within the AESO.

AESO CODES OF CONDUCT

The AESO maintains codes of conduct applicable to its Members, officers, employees and contractors, which serve as frameworks for these individuals when they are faced with difficult situations where laws and regulations may not provide sufficient direction and assistance. These codes of conduct form part of the AESO Bylaws.

The AESO's Code of Conduct – Officers, Employees and Contractors is a policy all employees must review at least annually and confirm their compliance/non-compliance with, and their agreement to abide by it. New employees are required to review and agree to abide by this code of conduct from their first day of employment.

Each Member of the AESO Board is bound by the AESO Members' Code of Conduct.

STRATEGIC PLANNING AND BUDGET DEVELOPMENT

The strategic plan and budget and business plans are key to the AESO's operations.

The strategic plan provides organizational direction for the development of corporate, departmental and individual plans and goals for the current and future years and links the AESO's vision, objectives, strategies and initiatives to day-to-day operations. The strategic plan is reviewed and approved by the AESO Board and forms the foundation for which the AESO's annual business priorities and budgets are established. Individual goals and departmental plans are approved and established by the AESO executive and management.

As a part of the AESO's development of its business priorities, budgets and forecast costs, the AESO undertakes a consultation process with stakeholders, which is referred to as the budget review process (BRP).

The BRP is an open and transparent process that allows stakeholders the opportunity to provide input into the AESO's business priorities, budgets and forecast costs. The BRP's primary objective is to work with stakeholders to develop a comprehensive business-planning document that provides a common understanding of expected deliverables and related costs. Stakeholders' input can be provided in a number of ways including submitting written comments of the proposed budget and meeting with the AESO Board to explain those comments. The BRP in 2009 included a multi-year budget, the second for the AESO. At the conclusion of process, the AESO Board issues a decision on the AESO's business priorities, budgets and forecast costs.

PERFORMANCE MANAGEMENT

The AESO's salary administration process is pay for performance and is designed to meet, align with and attain the goals to be achieved at the corporate level. The corporate goals are initially developed by AESO executive based on business priorities set out in the strategic plan and the business plan. The AESO Board provides oversight in establishing, approving and setting these annual corporate goals as well as milestones and metrics.

Department plans and individual goals, which are developed annually, are designed with a view to support achievement of the corporate goals.

PERFORMANCE REPORTING

AESO executive updates the status of attaining corporate goals on a regular basis and reports to the AESO Board. Based on its review, the AESO executive can determine which goals are on target to be met and those that are at risk of not being achieved. For those goals at risk of not being met, strategies are developed or altered to better achieve the desired goal.

RISK MANAGEMENT

The AESO has established a Security Policy and Risk Committee, which is an AESO executive committee responsible for development, implementation and ongoing management of the organization's enterprise risk management and corporate security programs. This committee has regularly scheduled meetings.

Regular reports are provided to the Security Policy and Risk Committee, senior management and the AESO Board's Audit Committee, which detail identified risks, their status and related mitigation strategies.

The AESO prioritizes its risks and incorporates them into the annual goal-setting process. Risk mitigation includes development and implementation of appropriate corporate policies, including various financial policies (e.g., travel policy, corporate expenses, etc.). These policies are communicated to employees and are accessible by employees at all times.

INTERNAL CONTROLS

Internal controls have been designed and implemented by the AESO's management and are approved by the AESO Board and Committees, utilizing policy approval processes, to provide reasonable assurance of achieving the following objectives:

- effectiveness and efficiency of operations
- reliability of financial reporting
- compliance with laws and regulations

EXTERNAL AUDITS/REVIEWS/PROCEDURES

Operating audits/reviews/procedures are performed to determine the existence and effectiveness of internal controls as they relate to the AESO's operations and compliance with laws and regulations. This includes the annual financial statement audit performed by an independent audit firm.

AESO Executive

The AESO Board is responsible for appointing the President and Chief Executive Officer pursuant to the EUA, and in accordance with the Bylaws, such other officers as are necessary, whose duties and functions are prescribed by in the Bylaws or by the President and Chief Executive Officer.

The chief executive officer leads an executive team that operates the day-to-day business and affairs of the AESO, including running the business and developing corporate practices, such as governance practices, required to meet best business practices.

The current executive team is as follows:

David Erickson
President &
Chief Executive Officer*

Cliff Monar
Senior Vice-President*

Sandra Scott
Senior Vice-President,
Corporate Services
& Chief Information Officer*

Shankar Bhattacharya
Vice-President, Transmission
*(effective January 2010)**

Todd Fior
Vice-President, Finance*

Kelly Gunsch
Vice-President, Market Services*

Heidi Kirrmaier
Vice-President, Regulatory*

Mike Law
Vice-President, Operations
*(effective January 2010)**

Larry D. Kram
General Counsel and Corporate Secretary*

* Denotes officer of the organization

Board of Directors

Harry Hobbs
Chairman
Member of the Audit Committee, the Human Resources, Compensation and Nominations Committee, and Corporate Governance Committee

Mr. Hobbs was appointed Chairman of the Board effective June 1, 2006. He has been a Member of the AESO Board since May 2004. Mr. Hobbs is President of Harry Hobbs & Associates, an energy consulting firm in Calgary. He also serves as a Director of the Van Horne Institute, an organization dedicated to addressing transportation and regulatory issues in North America. Mr. Hobbs spent 25 years with Foothills Pipe Lines Ltd., serving as an executive and officer of the company before retiring in 2003. He also has served as a Board Member of numerous organizations in the private and not-for-profit sectors.

Bill Burch
Board Vice-Chair
Member of the Audit Committee and the Human Resources, Compensation and Nominations Committee

Mr. Burch has been a Member of the AESO Board since 2003. He joined the Board of one of the AESO's predecessor companies in 2001. Mr. Burch is a chartered accountant with extensive background in the finance industry. Since retiring as a partner with PriceWaterhouseCoopers he has served as a Board Member for several private and public companies and is actively involved as a volunteer in his community.

Nancy Laird
Chair of the Corporate Governance Committee and Member of the Human Resources, Compensation and Nominations Committee

Ms. Laird has been a Member of the Board since June 2003. Ms. Laird has held senior executive positions in several major energy companies and has a diverse background in managing marketing and midstream, regulatory, environmental and information technology portfolios. She is a Board Member of Keyera Facilities Income Fund, Alter NRG Corp. and Synodon Inc. Ms. Laird is also Chair of Calgary Technologies Inc. and a former Board Member of Enerflex Systems Income Fund, Canetic Resources Trust, Canadian Oil Sands Trust, Alliance Pipeline, ProGas, the United Way of Calgary, Hull Child and Family Services and SAIT Polytechnic. She has an MBA from the Schulich School of Business at York University.

Robert McClinton
Chair of the Audit Committee

Mr. McClinton was appointed to the Board in December 2007. He has held senior executive positions in several energy companies including Canadian Turbo Inc. and BMP Energy Systems. Mr. McClinton serves as Chairman of the Board of CE Franklin Ltd. and is a Director of CriticalControl Solutions Inc. and PetroKamchatka Plc. He also serves as Chairman of the Board for the not-for-profit Calgary HandiBus Association and as Chair of its Fund Development Activities Committee. He is a member of the Alberta and Canadian Institutes of Chartered Accountants and Financial Executives International and the Institute of Corporate Directors.

Hugh Fergusson
Chair of the Human Resources, Compensation and Nominations Committee and Member of the Corporate Governance Committee

Mr. Fergusson has been a Member of the Board since December 2007. He is currently President of Argyle Resources Inc. Mr. Fergusson has over 30 years experience in the chemical, oil and gas industries, including past Board membership of Dow Chemical Canada Inc., Union Carbide Canada Inc., the Gas Processors Association of America and the Petrochemical Feedstock Association of the Americas. He is a Director and Committee Member of Provident Energy Trust, Canexus Income Fund, AltaGas Services Inc., Beyond Compliance Inc. and the Canadian Energy Research Institute. He has been admitted to the Law Society of Upper Canada and received the designation of ICD.D from the Institute of Corporate Directors.

Jan Carr
Member of the Audit Committee

Dr. Carr retired as the founding Chief Executive Officer of the Ontario Power Authority in 2008. Prior to that, he was Vice-Chair of the Ontario Energy Board. His 38 year career in the electricity sector has included senior positions in the design and planning of transmission and distribution systems in various parts of the world. He is a Member of the Board of Directors of Legend Power Systems of Burnaby, B.C. which manufactures energy conservation equipment. He is also a member of the International Strategic Advisory Group of Gowlings, one of Canada's major law firms. He has previously served on the Boards of both TransAlta Power and Macquarie Canadian Infrastructure Management Ltd. Dr. Carr holds a Ph.D. in Electric Power Systems from the University of Waterloo.

Gordon Ulrich
Member of the Audit Committee and Corporate Governance Committee

Mr. Ulrich has extensive experience in both the coal and energy industries including 23 years with Luscar Ltd., where he served as President for 10 years after progressing from positions in Finance and Strategic Planning. Mr. Ulrich has served on the Boards of a number of resource companies, and for five years as Vice-Chair of the Balancing Pool prior to joining the AESO Board. Mr. Ulrich is a Professional Engineer (retired), registered in the provinces of Alberta and B.C. and holds a master's degree in business administration and a bachelor's degree in geological engineering. He is a life member of the Association of Professional Engineers, Geologists, and Geophysicists of Alberta (APEGGA).

PHOTO ON OPPOSITE PAGE

Standing, left to right:
Hugh Fergusson, Gordon Ulrich, Jan Carr, Nancy Laird, Bill Burch

Seated, left to right:
Harry Hobbs, Robert McClinton

Executive Team

David Erickson
President &
Chief Executive Officer

Cliff Monar
Senior Vice-President

Sandra Scott
Senior Vice-President,
Corporate Services
& Chief Information Officer

Shan Bhattacharya
Vice-President,
Transmission

Todd Fior
Vice-President,
Finance

Kelly Gunsch
Vice-President,
Market Services

Heidi Kirrmaier
Vice-President,
Regulatory

Mike Law
Vice-President,
Operations

David Erickson
President & Chief Executive Officer

Mr. Erickson is responsible for ensuring the AESO effectively fulfils its mandate for the safe, reliable and economic operation and development of the Alberta Interconnected Electric System and operating the province's fair, efficient and openly competitive wholesale electricity market. His experience spans more than 20 years of international financial management and accounting expertise in the energy and electricity sectors. Mr. Erickson has been active in the electricity industry for many years and served as Chief Financial Officer for the former Transmission Administrator of Alberta, then began serving as Chief Financial Officer for the AESO in 2003. His responsibilities were expanded in 2005, and again in 2007 when he was appointed Senior Vice-President and Chief Operating Officer. He was appointed to his current role in December 2008.

Cliff Monar
Senior Vice-President

Mr. Monar has overall accountability for market and regulatory services including electricity and operating reserve market design, development of market rules and operating policies, design and implementation of the AESO tariff, compliance monitoring and commercial services (ancillary services procurement). Mr. Monar has over 20 years of industry experience in energy trading and portfolio management, business development, engineering and project management. In 2007, he was appointed Vice-President of Market Services and prior to that, he was Director of Strategic Initiatives and Director of Commercial Services for the AESO. Mr. Monar was appointed to his current role in January 2009.

Sandra Scott
Senior Vice-President, Corporate Services & Chief Information Officer

Ms. Scott has overall accountability for the AESO's corporate services functions including Human Resources, Communications and Stakeholder Relations, Security, Customer Services and Information Systems. Her 23-year background in the energy sector includes business leadership and operational management across a wide variety of international business units and partnership in the development of a successful western Canadian consulting organization. She has assisted a variety of companies in the areas of strategic plan development, planning and execution of business strategy, program and project management, and improved effectiveness through information technology innovation. Ms. Scott has served as Vice-President Information Technology for the AESO since July 2006 and was appointed to her current role in January 2009.

Shan Bhattacharya
Vice-President, Transmission

Mr. Bhattacharya is accountable for the planning and development of the Alberta Interconnected Electric System. Mr. Bhattacharya is a senior utility and engineering executive with over 30 years experience in engineering, construction and operation of power plants, as well as major transmission and distribution systems. His previous assignments include 20 years with the U.S. utility Pacific Gas and Electric Company, and over 10 years with U.S. consulting companies Bechtel Power Corporation and TRC. Mr. Bhattacharya was appointed to his current role in January 2010.

Todd Fior
Vice-President, Finance

Mr. Fior is responsible for all financial management and accounting activities at the AESO. He has more than 18 years of public and private sector experience in the accounting, financial and treasury management areas and was most recently Director, Risk and Settlement for the AESO. Mr. Fior was appointed to his current role in February 2007.

Kelly Gunsch
Vice-President, Market Services

Ms. Gunsch is accountable for market services at the AESO and is responsible for various market, process and policy initiatives within the organization. Ms. Gunsch has extensive experience and skills in the areas of leadership, strategic planning and management, and policy development and implementation. Prior to joining the AESO, Ms. Gunsch was Vice-President of Commercial Operations at TransAlta. She was appointed to her current role in June 2009.

Heidi Kirrmaier
Vice-President, Regulatory

Ms. Kirrmaier is accountable for regulatory affairs at the AESO, focusing on the rules approval process and system access service tariff as regulated by the Alberta Utilities Commission. She also oversees the AESO's compliance monitoring activities. Ms. Kirrmaier brings extensive regulatory experience to her current role including previous responsibilities with ATCO, Aquila Networks Canada and the British Columbia Utilities Commission. Ms. Kirrmaier is a Professional Engineer in the Province of Alberta, and was appointed to her current role in December 2005.

Mike Law
Vice-President, Operations

Mr. Law is responsible for electric system operations including the operation of the AESO's system coordination centre. Mr. Law has held a range of progressively responsible positions in the electricity industry, most recently at Direct Energy Marketing Limited. He is experienced at customer pricing activities, load forecasting, structured hedging and ancillaries procurement. Mr. Law was appointed to his current role in January 2010.

Management's Discussion & Analysis of Financial Condition and Results of Operations

This management's discussion & analysis of financial condition and results of operations (MD&A) should be read in conjunction with the Alberta Electric System Operator's (AESO) audited financial statements for the years ended December 31, 2009 and 2008 and accompanying notes. The MD&A and financial statements are reviewed and approved by the AESO Board. The AESO's financial statements have been prepared in accordance with Canadian generally accepted accounting principles (GAAP) and are expressed in Canadian dollars.

The AESO is responsible for the operation of Alberta's competitive power pool; determining the order of dispatch of electric energy and ancillary services; providing system access service on the electric transmission grid; directing the safe, reliable and economic operation of the interconnected electric system; planning the capability of the transmission system to meet future needs; and administering load settlement.

Summary Annual Highlights

The AESO, a not-for-profit statutory corporation, recovers its operating, capital and intangible costs through three separate revenue sources, each of which is designed to recover the costs directly related to the provision of a specific service, as well as a portion of the shared corporate services costs.

($ Millions) Years ended December 31	**2009**	2008	Change	% Change
Collections	**929.1**	1,099.4	(170.3)	(15)
Revenue/deferred revenue	**(2.4)**	18.6	(21.0)	(113)
Other revenue	**1.4**	2.4	(1.0)	(42)
Total revenue	**928.1**	1,120.4	(192.3)	(17)
Transmission operating costs	**824.2**	1,031.6	(207.4)	(20)
Other industry costs	**21.4**	16.7	4.7	28
General & administrative costs	**71.6**	62.9	8.7	14
Interest costs	**1.3**	1.4	(0.1)	(7)
Amortization	**9.6**	7.8	1.8	23
Total costs	**928.1**	1,120.4	(192.3)	(17)

Total Costs

Transmission Operating Costs

Transmission operating costs represent wires, transmission line losses and ancillary services costs. In 2009, transmission operating costs are $824.2 million, which is $207.4 million or 20 per cent lower than the 2008 costs of $1,031.6 million. This variance is attributable to changes in transmission line losses and operating reserve costs due primarily to lower pool prices in 2009 compared to 2008.

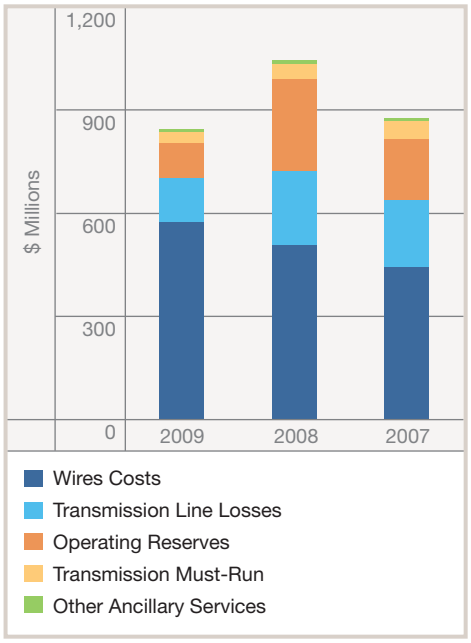
TRANSMISSION OPERATING COSTS

($ Millions) Years ended December 31	2009	2008	Change	% Change
Wires costs	566.8	499.0	67.8	14
Transmission line losses	123.1	220.6	(97.5)	(44)
Operating reserves	101.9	262.2	(160.3)	(61)
Transmission must-run	26.0	41.8	(15.8)	(38)
Other ancillary service costs	6.4	8.0	(1.6)	(20)
Transmission operating costs	824.2	1,031.6	(207.4)	(20)

WIRES

Wires costs represent the amounts paid primarily to owners of transmission facilities (TFOs) in accordance with Alberta Utilities Commission (AUC)-approved tariffs and are not controllable costs of the AESO. Wires costs in 2009 are $566.8 million, which is $67.8 million or 14 per cent higher than the 2008 costs of $499.0 million due to changes in the regulated rates charged by the TFOs.

Included in wires costs in 2009 is a one-time payment of $35.0 million that was made to a TFO arising from AUC Decision 2009-151 on project costs incurred by the TFO on the voided Genesee-Langdon 500kV project. On December 1, 2009 the AESO filed an application requesting the AUC review and vary its finding in Decision 2009-151, which may ultimately affect the amount and timing of this payment to the TFO.



TRANSMISSION LINE LOSSES

Line losses represent the amount of energy that is 'lost' as a result of electrical resistance on the transmission lines. Volumes associated with line losses are determined through the energy market settlement as the difference between generation and import volumes less consumption and export volumes. The hourly volumes of line losses vary based on load and export levels, generation (baseload, peaking units and import) available to serve load, weather conditions and changes in the transmission topology. System maintenance schedules, unexpected failures, dispatch decisions on the Alberta Interconnected Electric System (AIES), and short-term system measures (such as demand response) may also affect the volume of losses. The value of line losses is calculated at the hourly pool price.

The costs of line losses in 2009 are $123.1 million, which is $97.5 million or 44 per cent lower than the 2008 costs of $220.6 million due to the impact of the lower pool prices in 2009. The average hourly pool price, at which losses are valued, was $48 per megawatt hour (MWh) in 2009 compared to $90 per MWh in 2008, representing a decrease of 47 per cent in 2009. The volumes of line losses in 2009 are 2,513 gigawatt hours (GWh), which is 134 GWh or five per cent lower than the 2008 volumes of 2,647 GWh.

OPERATING RESERVES

Operating reserves are comprised of three types of active reserves, with the minimum levels of operating reserves based on standards established by the Western Electricity Coordinating Council (WECC):

- **Regulating reserves –** The provision of generation and load response capability, including capacity, energy and maneuverability, which responds to the AESO's automatic generation control (AGC) system.
- **Spinning reserves –** Unloaded generation that is synchronized to the system, automatically responsive to frequency deviation and ready to serve additional demand following an AESO system operator directive. A customer offering spinning reserves must be able to ramp up their generator within 10 minutes in response to a system operator directive due to a system contingency.
- **Supplemental reserves –** Similar to spinning reserves except supplemental reserves are not required to respond to frequency deviations; therefore, they include load and generators.

The AESO purchases operating reserves from the ancillary services exchange and through over-the-counter contracts with suppliers. Operating reserves are generating capacity or load that is held in reserve and made available to the system operator to manage the transmission system supply-demand balance in real time. Operating reserve prices are indexed to the hourly pool price.

Operating reserve costs in 2009 are $101.9 million, which is $160.3 million or 61 per cent lower than the 2008 costs of $262.2 million primarily due to the impact of the lower hourly pool prices in 2009. The average hourly pool price, at which operating reserve prices are indexed, was $48 per MWh in 2009 compared to $90 per MWh in 2008 representing a decrease of 47 per cent. Operating reserve volumes are 8,116 GWh in 2009 compared to 8,139 GWh in 2008.

TRANSMISSION MUST-RUN

Transmission must-run (TMR) is generation required to be online and operating to assure reliability in specific areas of the AIES with insufficient transmission capacity to guarantee system reliability. This service is typically procured through commercial contracts between the AESO and suppliers.

The costs of TMR services are dependent primarily upon natural gas prices and pool prices. Since TMR services are provided by gas-fired generators, the underlying cost of the service is dependent on the price of natural gas. In addition, the determination to dispatch a generator to provide TMR service is based on local demand and local transmission constraints.

TMR costs in 2009 are $26.0 million, which is $15.8 million or 38 per cent lower than the 2008 costs of $41.8 million due to a 51 per cent year-over-year reduction in natural gas prices and an approximate 10 per cent reduction in TMR volume requirements in northwest Alberta due to lower demand in this area in 2009.

OTHER ANCILLARY SERVICES

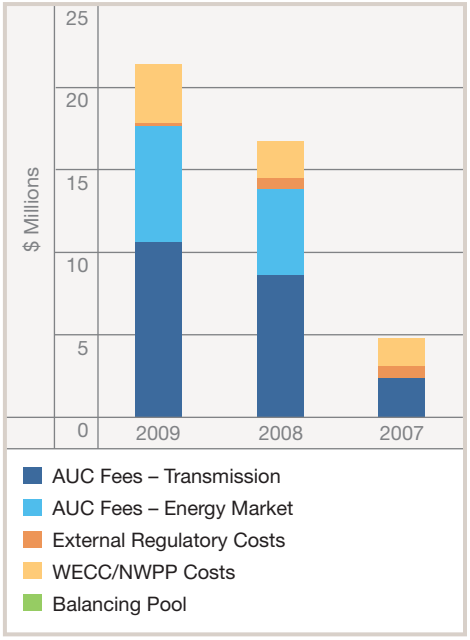
Other ancillary services include the remaining services that the AESO procures for the secure and reliable operation of the AIES such as load shed services and black start services. These services are procured through bilateral contracts with suppliers. In 2009, other ancillary services costs are $6.4 million which is $1.6 million or 20 per cent lower than the 2008 costs of $8.0 million due to the withdrawal of one load shed service supplier and one black start service provider.

Other Industry Costs

($ Millions) Years ended December 31	2009	2008	Change	% Change
AUC fees – Transmission	10.5	8.6	1.9	22
AUC fees – Energy Market	7.1	5.2	1.9	37
WECC/NWPP costs	3.6	2.2	1.4	64
External regulatory costs	0.2	0.7	(0.5)	(71)
Balancing Pool	–	–	–	–
Other industry costs	21.4	16.7	4.7	28

Other industry costs represent fees or costs paid based on regulatory requirements or membership fees for industry organizations. These amounts are not under the AESO's control and relate to the annual administration fees for the AUC, the AESO's share of WECC and Northwest Power Pool (NWPP) membership fees and external regulatory costs for the cost awards to interveners related to the AESO's regulatory proceedings.

Other industry costs in 2009 are $21.4 million, which is $4.7 million or 28 per cent higher than the 2008 costs of $16.7 million due to an increase in AUC administrative fees in 2009. Under the provision of the *Alberta Utilities Commission Act* (effective January 1, 2008), AUC operating and capital costs are recovered from natural gas and electricity market participants under its jurisdiction or any person to whom the AUC provides services. Accordingly, the AUC apportions its costs related to its electricity transmission and wholesale electric market activities to the AESO as an AUC administration fee. The AUC levies two separate administration fees to the AESO: a transmission fee that is recovered through the transmission tariff and an energy market fee that is recovered from energy market participants through the AESO's trading charge on a per MWh traded basis.



The AESO's share of the WECC membership fees in 2009 is $3.5 million, which is $1.3 million or 59 per cent higher than the 2008 fees of $2.2 million as a result of budget approvals by the WECC Board of Directors and allocated to the AESO on a percentage share basis.

General and Administrative Costs

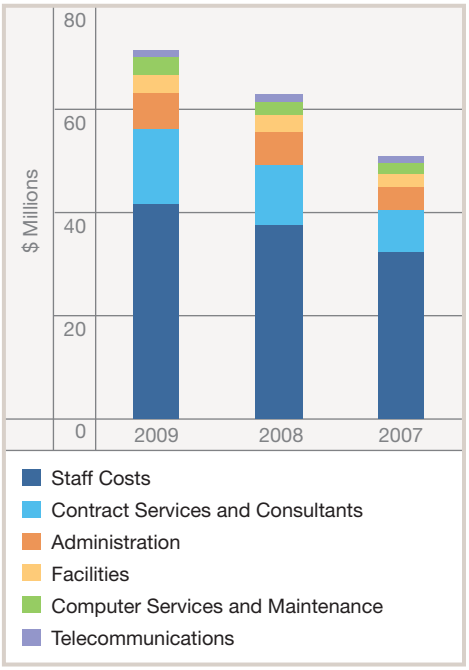
General and administrative costs in 2009 are $71.6 million, which is $8.7 million or 14 per cent higher than the 2008 costs of $62.9 million. This variance is primarily attributable to the additional costs of staff, contract and consultant resources required to fulfil the AESO's mandate and carry out its business objectives.

($ Millions) Years ended December 31	2009	2008	Change	% Change
Staff costs	41.5	37.4	4.1	11
Contract services & consultants	14.7	11.9	2.8	24
Administration	7.0	6.6	0.4	6
Facilities	3.6	3.1	0.5	16
Computer services and maintenance	3.5	2.6	0.9	35
Telecommunications	1.3	1.3	–	–
General and administrative costs	71.6	62.9	8.7	14

STAFF COSTS

Staff resources continue to be the foundation for the AESO's operations with ongoing management to assure that the right people with the right skill sets work to achieve the corporate objectives. This requires the organization to focus on attracting and retaining qualified staff. Two factors key to achieving this are maintaining a competitive compensation package and ensuring sufficient resources are available (permanent staff and contractors) to support employee work/life balance.

In 2009, staff costs are $41.5 million, which is $4.1 million or 11 per cent higher than the 2008 costs of $37.4 million. This is attributable to the increase in the AESO's staff complement (2009 – 319 staff; 2008 – 292 staff).



CONTRACT SERVICES AND CONSULTANTS

In 2009, contractor and consultant costs are $14.7 million, which is $2.8 million or 24 per cent higher than the 2008 costs of $11.9 million. There were several areas of focus in 2009 that required additional resourcing: preparation of connection proposals including wind generation, implementation of an expanded public education program, consultation and drafting of the new authoritative documents, and assistance to support a corporate organization review. The increase in contractor and consultant costs in 2009 for these areas offsets cost reductions on initiatives that were not recurring from 2008. The AESO continues to utilize contracted services for certain corporate information technology (IT) support and technical expertise.

ADMINISTRATION

Administration costs include corporate communications, recruiting, travel and training, AESO Board fees and office costs that present the general operating costs of the company. In 2009, administration costs are $7.0 million, which is $0.4 million or six per cent higher than the 2008 costs of $6.6 million. This is attributable to higher costs in 2009 associated with the *Powering Albertans* publication, recruiting costs and bank fees associated with a new credit agreement.

FACILITIES

In 2009, facilities costs are $3.6 million, which is $0.5 million or 16 per cent higher than the 2008 costs of $3.1 million. The increase in 2009 relates to approximately 15,000 square feet of leased office space to accommodate current requirements for IT project staff and higher operating costs at the AESO's main business office at Calgary Place and the system coordination facility.

COMPUTER SERVICES AND MAINTENANCE

As the AESO invests in IT infrastructure to support the organization's business operations, ongoing costs are incurred to purchase annual software operating licences and maintenance agreements for these systems with high availability requirements that are supported by premium class maintenance and support agreements. In addition, secure office and storage space is required at the back-up facility to accommodate IT hardware infrastructure.

In 2009, computer services and maintenance costs are $3.5 million, which is $0.9 million or 35 per cent higher than the 2008 costs of $2.6 million. This increase is attributable to additional software support for an increasing number of applications and additional costs related to the back-up facility to accommodate server growth that occurred in 2009 primarily related to the new system coordination computer systems (the new energy management system).

TELECOMMUNICATIONS

The AESO incurs costs for network systems and telecommunications to support general business operations and, to a much larger extent, to support real-time operations. The strategy for developing and maintaining the telecommunication infrastructure is based on the requirement for high availability, which necessitates redundancies of services and equipment.

In 2009, telecommunication costs are $1.3 million, which is consistent with costs incurred in 2008.

Interest Costs and Amortization

($ Millions) Years ended December 31	**2009**	2008	Change	% Change
Interest costs	**1.3**	1.4	(0.1)	(7)
Amortization of intangible and capital assets	**9.6**	7.8	1.8	23

INTEREST

Interest is incurred as a result of bank debt held throughout the year and the associated borrowing rate. Bank debt is issued to fund intangible and capital asset purchases and working capital deficiencies due to timing differences in the collection of revenues and payment of expenses. Intangible and capital assets are financed through the AESO's credit facilities and recovered over the useful life of the asset (included in the amortization amounts).

In 2009, interest costs are $1.3 million, which is $0.1 million or seven per cent lower than the 2008 costs of $1.4 million. This past year has seen considerable changes in the economic landscape with significant reductions to market interest rates. This has translated to lower borrowing costs in 2009 compared to 2008 through a reduction to the borrowing rates and lower borrowing amounts as a result of working capital surpluses that occurred throughout the year.

AMORTIZATION OF INTANGIBLE AND CAPITAL ASSETS

Intangible and capital assets are amortized over their estimated useful lives in accordance with GAAP and reviewed on an annual basis. Intangible assets include the AESO's computer software purchase and development costs.

In 2009, amortization of intangible and capital assets is $9.6 million, which is $1.8 million or 23 per cent higher than the 2008 amortization of $7.8 million as a result of the first full year of amortization for the assets commissioned during 2008 and assets commissioned in 2009 (including the costs of the new system coordination computer systems of $18.2 million).

Intangible and Capital Assets

Intangible and capital expenditures totalled $21.5 million in 2009 compared to $20.4 million in 2008. The AESO's development and acquisition of intangible and capital assets, most significantly investment in IT infrastructure, is a key component of the business operations. As with all IT-intensive organizations, the AESO's challenge is to find the appropriate balance between implementing technology advancements, determining the level of IT development that can be supported by business operations and establishing the funding requirements to make it all happen. To address these challenges, a vetting and prioritization process has been implemented and continues to be enhanced to assure intangible and capital asset expenditures achieve the most beneficial and cost-effective results to continue to meet operating requirements.

In 2009, $8.8 million in intangible and capital asset expenditures related to the system coordination computer systems (a replacement of the energy management system), which had a commissioning date in November 2009 for the initial release of the system with additional releases continuing throughout 2010 and 2011. The overall project costs at the end of December 2009 are $18.2 million with $9.4 million of costs being incurred prior to 2009. This initiative was in response to increasingly complex operational requirements, security for the operations of the AIES and the age of the existing system. As part of this initiative, a new Enterprise Service Bus (ESB) technology has been implemented that will enhance the flexibility and integration of the system coordination computer systems with other AESO IT operating systems to assure redundancy and high availability exists to support the system operators, who also supervise and direct the operations of the power system. More stringent security and North American Electric Reliability Corporation (NERC) standards will also require additional investment in the AESO's computer systems to provide disaster recovery capabilities.

The remaining intangible and capital asset expenditures in 2009 relate primarily to software development for critical operational systems such as upgrades to the Dispatch Tool (DT) and the Automated Dispatch and Messaging System (ADaMS) to improve the reliability, stability and sustainability of these systems.

In 2008, the intangible and capital asset expenditures of $20.4 million related primarily to the system coordination computer systems, in addition to software and hardware acquisition and development. Renovations at the AESO's main business office at Calgary Place also occurred in 2008 to accommodate additional resources.

The AESO's net book value for intangible and capital assets totalled $67.4 million in 2009 compared to $55.6 million in 2008. As of December 31, 2009, approximately 75 per cent of the net book value relates to computer infrastructure with the remaining value associated with the system coordination facility and infrastructure.

Service Area Cost Detail

Allocation of Costs for Revenue Requirements

The AESO recovers its operating, intangible and capital costs through three separate revenue sources. Each is designed to recover the costs directly related to a specific service as well as a portion of the shared corporate services costs. The majority of revenues the AESO collects are the recovery of transmission operating costs (wires, line losses and ancillary services costs). The remaining costs (other industry, general and administrative, interest and amortization costs) are recovered through a methodology intended to relate the cost to the specific service that it supports (transmission, energy market or load settlement).

The allocation of costs to one of the AESO's three services is based on the direct or indirect relationship the cost has to one of the services. If an operating cost is directly associated with a service, the cost will be assigned directly to that service (i.e., a consultant cost in the Regulatory group would be assigned 100 per cent to transmission and recovered through the transmission tariff). Alternatively, if the operating cost is not directly associated with any one service (typical for corporate service areas), the cost will be allocated to all services based on the directly assigned costs. This methodology assumes that the service with the higher direct costs would contribute to a higher demand for general costs (such as corporate services) and therefore be assigned a higher percentage allocation.

There are a few exceptions to this general methodology for IT, rent, intangible and capital costs. IT costs are allocated based on an activity-based analysis to better reflect the nature of the underlying costs. Rent costs are allocated based on the staff associated with the three services. Intangible and capital purchases made to support one service are recovered from that service or alternatively from multiple services based on management judgment, taking into consideration the business/operating activities that will be supported on the systems (hardware and software).

ALLOCATION AND COST CLASSIFICATIONS

Cost Categories	General Classification	AESO SERVICES (%)		
		Transmission	Energy Market	Load Settlement
Wires	Operating	100	–	–
Line losses	Operating	100	–	–
Operating reserves	Operating	100	–	–
Transmission must-run	Operating	100	–	–
Other ancillary services	Operating	100	–	–
Other industry costs	Non-operating	All other costs	AUC-related admin fee	–
General and administration	Non-operating	Costs allocated based on an established methodology		
Interest	Non-operating	Costs allocated based on an established methodology		
Amortization of intangible/capital assets	Non-operating	Costs allocated based on an established methodology		

	General and Administrative		Amortization		Interest		Total	
($ Millions) Years ended December 31	**2009**	2008	**2009**	2008	**2009**	2008	**2009**	2008
Transmission	**52.2**	45.9	**5.0**	4.4	**0.8**	0.8	**58.0**	51.1
Energy Market	**17.1**	15.0	**3.0**	2.0	**0.4**	0.4	**20.5**	17.4
Load Settlement	**2.3**	2.0	**1.6**	1.4	**0.1**	0.2	**4.0**	3.6
Total	**71.6**	62.9	**9.6**	7.8	**1.3**	1.4	**82.5**	72.1

GENERAL AND ADMINISTRATIVE

The results of the allocation of general and administrative costs between the three services based on the detailed allocation methodology produces consistent percentages in 2009 compared to the results from 2008; 73 per cent to transmission, 24 per cent to energy market and three per cent to load settlement.

AMORTIZATION

The allocation of amortization in 2009 is consistent with 2008 percentages with the exception of $1.8 million of software assets associated with the energy market that were to start their amortization in 2008 but the amortization did not commence until 2009. Amortization in 2009 includes $0.8 million related to these assets.

INTEREST

The allocation of interest costs between the three services, taking into consideration the business requirements associated with the borrowings, results in consistent allocation percentages in 2009 compared to 2008.

Total Revenues

The *Electric Utilities Act* (EUA) requires that the AESO operates so no profit or loss results on an annual basis from its operations. To achieve this, revenue is recognized to the extent of annual operating costs, including the amortization of intangible and capital assets. When the annual sum of collections differs from the annual operating costs, the difference is recorded as revenue or deferred revenue and recognized in the deferral accounts. The AESO's three revenue sources are transmission, energy market and load settlement.

TOTAL REVENUE

($ Millions) Years ended December 31	2009	2008	Change	% Change
Revenue collections				
Transmission	**900.9**	1,083.9	(183.0)	(17)
Energy Market	**27.2**	13.5	13.7	101
Load Settlement	**2.4**	4.4	(2.0)	(45)
Total collections	**930.5**	1,101.8	171.3	(16)
Revenue/(deferred revenue)				
Transmission	**(4.4)**	10.3	(14.7)	(143)
Energy Market	**0.4**	9.1	(8.7)	(96)
Load Settlement	**1.6**	(0.8)	2.4	(300)
Total revenue/(deferred revenue)	**(2.4)**	18.6	(21.0)	(113)
Total revenue	**928.1**	1,120.4	(192.3)	(17)

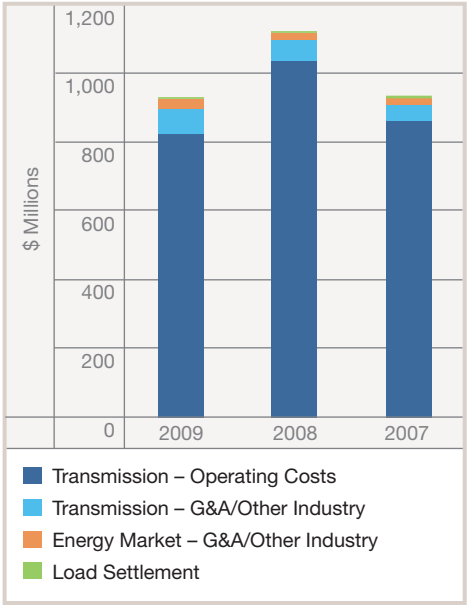
Transmission

The AESO is responsible for paying all of the costs of managing the provincial transmission system and recovering the costs through a tariff approved by the AUC. The transmission tariff is designed to allocate the costs to all users of the transmission system based on level of usage.

On a monthly basis, the AESO invoices its transmission customers for transmission system access services based on approved tariff rates. The AESO also pays for costs associated with providing system access services. The monthly differences in the revenues collected and the costs incurred are accumulated in the AESO's transmission deferral account and can be attributed to several factors:

- Timing of revenues and costs (monthly fluctuations);
- Forecast variances (pool price volatility, meter volumes and regulatory decisions); and
- Any misalignment of approved rates and the current year revenue requirement (delays in having the current year rates approved).

In circumstances where collections are in excess of the transmission costs, the excess amount is recognized in the deferral accounts and refunded to customers in future periods. In circumstances where collections are less than the transmission costs, the shortfall is recorded as revenue, recognized in the deferral accounts and recovered from transmission customers in future periods.



TRANSMISSION DEFERRAL SUMMARY

($ Millions) Years ended December 31	2009	2008
Collections	900.9	1,083.9
Costs	896.5	1,094.2
Transmission deferred revenue (revenue)	4.4	(10.3)
Deferral account (receivable) payable, beginning of year	(10.7)	50.7
Collection (disbursement) of the Deferral Account Reconciliation Applications		
2008	6.4	
2004-2007		(51.1)
Deferral account payable (receivable), end of year	0.1	(10.7)

As part of the transmission tariff, Deferral Account Adjustment Rider C is intended to bring the transmission deferral account balance for non-transmission line losses rate categories to zero during the following calendar quarter. It is a dollar per MWh collection or payment by rate class and rate component. Losses Calibration Factor Rider E is intended to bring the transmission line losses deferral account balance to zero during the remainder of the calendar year. Rate Rider E is a percentage adjustment to all location-specific loss factors.

For non-transmission line losses rate categories, the AESO files a retrospective deferral account reconciliation application with the AUC for approval of the final settlement amounts. The final reconciliation process associates all revenue and cost adjustments by rate category to the appropriate production month and allocates the corresponding charges and refunds to transmission customers. For transmission line losses, Rate Rider E is a prospective adjustment for the reconciliation of deferral account balances.

The transmission deferral account balance changed from a receivable of $10.7 million from transmission customers at the end of 2008 to a payable of $0.1 million to transmission customers at December 31, 2009. This change is due to the combination of 2009 transmission collections being greater than transmission costs and the collection of amounts from transmission customers in 2009 related to the 2008 Deferral Account Reconciliation Application.

Energy Market

The AESO recovers the costs of operating the real-time energy market through an energy market trading charge on all megawatt hours traded. The energy market trading charge is set to recover the operating costs and the amortization of intangible and capital assets and the AUC administrative fee during the period. For 2009, the AESO's component of the energy market trading charge is 23.2 cents per MWh to cover operating, intangible and capital costs (13.1 cents per MWh) and the AUC administrative fee (10.1 cents per MWh). For 2008, the AESO's component of the energy market trading charge was 11.1 cents per MWh. There is also a component in the energy market trading charge that relates to the operations of the Market Surveillance Administrator (MSA), which is independent of AESO operations.

Energy market collections are dependent on the annual energy market trading charge and the volume of energy traded through the power pool.

In circumstances where annual collections are in excess of energy market costs, the excess amount is recognized in the deferral accounts and incorporated into a reduction in the following year's required energy market trading charge. In circumstances where annual collections are less than the energy market costs, the shortfall is recorded as revenue, recognized in the deferral accounts and collected in the following year.

The energy market deferral account is the accumulated difference between revenues collected and costs paid that is receivable from, or payable to, energy market participants.

ENERGY MARKET DEFERRAL SUMMARY

($ Millions) Years ended December 31	2009	2008
Collections	27.2	13.5
Costs	27.6	22.6
Energy market revenue	(0.4)	(9.1)
Deferral account (receivable) payable, beginning of year	(2.8)	6.3
Deferral account receivable, end of year	(3.2)	(2.8)

The energy market deferral account at December 31, 2009 is a $3.2 million receivable compared to a $2.8 million receivable at the end of 2008. The change of $0.4 million during 2009 is the result of costs related to general and administrative, interest, amortization and other industry costs exceeding collections.

Market Surveillance Administrator Charge

A portion of the energy market charge collected by the AESO is remitted to the MSA for its revenue requirement in accordance with the EUA. The AESO facilitates the cash collection process for the funding of the MSA through a per MWh addition to the AESO's energy market trading charge. In 2009, the MSA's portion of the total energy market trading charge is 2.5 cents per MWh, which compares to an MSA charge of 3.0 cents per MWh in 2008.

The MSA's revenue and costs are separate and independent of the AESO's financial records. The AESO records the difference between the payments made to the MSA and the collection on behalf of the MSA as a separate deferral account. At the end of 2009 and 2008, the difference between MSA collections and payments has been less than $0.2 million.

Load Settlement

Expenses that are incurred to provide services related to administering provincial load settlement are charged to the owners of electric distribution systems and wires service providers conducting load settlement under ISO rules. The costs associated with load settlement include direct service costs, an allocation of the AESO's corporate shared services and an allocation of amortization for the recovery of intangible and capital assets.

The difference in the annual revenue collections and costs incurred associated with load settlement is recorded in the deferral accounts. Load settlement collections are dependent upon the AESO's annual forecast of load settlement costs. On an annual basis, the load settlement deferral account is charged or refunded to the owners of electric distribution systems and wires service providers.

LOAD SETTLEMENT DEFERRAL SUMMARY

($ Millions) Years ended December 31	2009	2008
Collections	2.4	4.4
Costs	4.0	3.6
Energy market (revenue) deferred revenue	(1.6)	0.8
Deferral account payable, beginning of year	1.8	1.0
Deferral account payable, end of year	0.2	1.8

Financial Position and Liquidity

($ Millions) Year ended December 31	2009
Cash, beginning of year	12.8
Operating activities	18.4
Investing activities	(21.5)
Financing activities	30.5
Cash, end of year	40.2

The cash balance as at December 31, 2009 is $40.2 million compared to $12.8 million at December 31, 2008. The increase is primarily the result of the following:

- **Operating activities** provided cash of $18.4 million in 2009. The increase is mainly attributed to a change in non-cash working capital of $8.8 million.
  - Accounts receivable balance at December 31, 2009 is $113.2 million compared to $122.3 million at December 31, 2008, a decrease of $9.1 million.
  - Accounts payable balance at December 31, 2009 is $113.6 million compared to $114.7 million at December 31, 2008, a decrease of $1.1 million.
  - Security deposits at December 31, 2009 are $1.8 million compared to $1.0 million at December 31, 2008, an increase of $0.8 million.
- **Investing activities** used cash of $21.5 million for intangible and capital asset purchases.
- **Financing activities** provided cash of $30.5 million in 2009. The primary financing activities are a decrease in deferral accounts receivable from customers of $8.8 million and an increase in bank debt of $22.0 million.

As at December 31, 2009, the AESO had the following credit facilities available to fund general operating, intangible and capital activities:

($ Millions) Year ended December 31, 2009	Total	Available	Used
Demand revolving facility	160.0	36.3	123.7
Demand treasury risk management facility	9.0	9.0	–

The demand facility includes a $10 million letter of credit at December 31, 2009, which is issued as security for the AESO's procurement of operating reserves.

Future Outlook

Cost recovery for the AESO's operations is approved on an annual basis by the AESO Board, and for transmission-related wires costs through TFO tariffs approved by the AUC under section 37 of the EUA.

For transmission-related activities in 2010, the AESO established a revenue requirement of $397.3 million through the 2010 Budget Review Process for costs related to ancillary services, line losses, other industry and general and administrative costs. A revenue requirement of $537.5 million for wires costs is forecast for approvals by the AUC for TFO tariffs. The total transmission revenue requirement in 2010 of $934.8 million is $38.4 million or four per cent higher than the 2009 actual costs of $896.5 million.

For energy market activities, the annual costs are forecast to increase to $30.9 million in 2010 from 2009 actual costs of $27.6 million, a $3.4 million or 12 per cent increase. This forecast increase results from the combination of higher cost allocations to the energy market services for corporate service and IT costs and overall increases in general and administrative costs and amortization. With the combination of this forecast cost increase and the 2009 deferral account balance, the AESO's portion of the 2010 energy market trading charge will increase to 21.1 cents per MWh in 2010 compared to 13.1 cents per MWh in 2009, an increase of 8.0 cents per MWh. In 2010, the total energy market trading charge, which also includes an MSA component, will be 29.8 cents per MWh, a change from the 2009 charge of 25.7 cents per MWh.

In December 2008, the Alberta Department of Energy published a new Provincial Energy Strategy entitled *Launching Alberta's Energy Future*. The energy strategy is a significant and relevant policy in planning Alberta's energy future. One component of the strategy calls for a substantial upgrade to the transmission system; the first step is approving the need for critical transmission infrastructure. In December 2009, the *Electric Statutes Amendment Act*, *2009* was proclaimed whereby the Government of Alberta is responsible for approving the need for critical transmission infrastructure projects.

The AIES provides an adequate level of reliability; however, the level of congestion on the system is expected to increase until more transmission is built. The number of congestion events continues to increase in many areas. In particular, generation constraints are increasing in the Keephills-Ellerslie-Genesee (KEG), southwest and northeast areas. The northwest area continues to rely on TMR generation. Timely approval and implementation of proposed transmission upgrades remain priorities for the AESO to meet future reliability needs. In the upcoming 24-month period, transmission upgrades are expected to reduce the need for TMR generation and the levels of generation constraints will depend on coordination of transmission and generator outages. Some generation constraints will be unavoidable. The Montana-Alberta intertie will bring some import and export diversity into the marketplace.

The AIES supply margins will be sufficient during the next two years as the impact of the economic downturn has slowed load growth. Market forces continue to govern generation development in accordance with load growth with large volumes of generation in the connection queue. The AESO will continue to emphasize operating procedures, system analysis and the availability of training and tools to equip system operators to manage the reliability of the Alberta system.

The AESO, in support of the energy-only market design in Alberta, is focusing on the development and implementation of enhancements to the market rules to assure the sustainability of an energy-only market. Over the last year, and continuing on through the next several years, the AESO is focusing on marketplace initiatives such as wind integration, interties, demand response, transmission constraints management, generation outage coordination and operating reserve market redesign. Many of these projects will require capital investment for new computer systems and applications. An assessment of existing aging market systems will commence in 2010, resulting in a replacement schedule if deemed necessary.

In April 2007, the AESO brought to the attention of the MSA certain ancillary services transactions that did not comply with the AESO's business practices. In May 2007, the MSA initiated a review into the activities in the ancillary services market and in November 2008 issued its *MSA Report, Ancillary Services Investigation*. In this report, the MSA noted that it "did not find any evidence of intent by the AESO or counterparties to manipulate market prices" nor did it find "any evidence of a distortion of market prices". As a result, the MSA was not taking any direct enforcement action and had concluded its investigation. However, as certain trades may have been contrary to the ancillary services exchange trade agreement to which the AESO is a party, the MSA referred the matter to the exchange operator (Alberta Watt Exchange Limited) and the Alberta Securities Commission.

International Financial Reporting Standards

In February 2008, the Canadian Accounting Standards Board (AcSB) confirmed that effective January 1, 2011, Canadian GAAP for publicly accountable entities will be replaced in full with International Financial Reporting Standards (IFRS) as promulgated by the International AcSB. While the requirement for the new accounting standards does not include not-for-profit entities such as the AESO, management's current intentions are to transition to IFRS on the same timeline as publicly accountable entities by January 1, 2011. Management continues to assess the areas of difference between Canadian GAAP and IFRS and is in the design and development phase of the transition plan. The results of the assessment will be reviewed with the advising public accounting firm. The Audit Committee of the AESO Board is provided with regular updates and to date, progress remains on plan for IFRS conversion for reporting on December 31, 2011.

Risk Management

Similar to other electric system operators and wholesale market facilitators, the AESO is exposed to various risks and uncertainties in the normal course of business. The risk management processes the AESO has developed are designed to identify the risks confronting the AESO, assess the impact and likelihood of those risks occurring, and determine mitigation strategies to be taken. AESO management is responsible for the ongoing operations of the organization including its risk management programs. Regular reports are provided to the Audit Committee and the AESO Board detailing the status of the risks identified and related mitigation strategies. The AESO prioritizes the identified risks and incorporates this information into the organization's corporate strategies and annual goals and objectives.

While many of the risks identified by the AESO's risk management processes are not directly within the control of the AESO, it has adopted several strategies to reduce and mitigate the effects of those risks that are within its control. The key features of the AESO's internal control environment, which facilitate the AESO's risk management processes, are as follows:

- The AESO is governed by a Board consisting of Members appointed by the Alberta Minister of Energy, who are required to act in the public interest and independently from any person or entity having a material interest in the electricity industry. In addition, the AESO Board collectively acts in the public interest and independently from the electricity industry.
- The *Alberta Public Agencies Governance Act*[1] clarifies the role of the AESO as a public agency subject to government policies applicable to it, or its activities or functions. The AESO is developing documentation to meet the requirements of this legislation including a roles and mandates document agreed to with the Minister of Energy.
- Corporate policies are developed and approved by the AESO Board or the President and Chief Executive Officer as delegated by the AESO Board. Corporate policies are communicated to employees regularly and are accessible by employees at all times.
- The AESO's management, led by the President and Chief Executive Officer, is committed to maintaining a high level of ethics and integrity. Management fosters this culture throughout the organization.
- The AESO maintains codes of conduct applicable to its Members and officers, employees and contractors, which serve as frameworks for these individuals when they are faced with difficult situations where laws and regulations may not provide sufficient direction and assistance. The AESO's Code of Conduct – Officers, Employees and Contractors is a policy that all employees must review at least annually and confirm their compliance/non-compliance with it, and their agreement to abide by it. Each Member of the AESO Board is also bound by the AESO Members' Code of Conduct.

[1] Assented to on June 4, 2009; in effect on proclamation.

- The AESO's management is responsible for establishing and maintaining adequate internal controls over financial reporting. These controls are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Internal controls over financial reporting, no matter how well designed, have inherent limitations and provide only reasonable assurance with respect to financial statement preparation and may not prevent or detect all misstatements.

  The AESO conducts an annual assessment of the design and effectiveness of its internal controls over financial reporting based on an accepted industry framework. The framework adopted by the AESO for this assessment is the *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management concluded that the AESO maintains effective internal control over financial reporting as of December 31, 2009.
- The Audit Committee reviews and monitors the system of internal controls, the systems for managing risk, the external audit process, and the AESO's process for monitoring compliance with laws and regulations, with a view to ensuring best practices are followed.
- Risk assessment is a continuous process undertaken by management. The AESO's management is committed to proactively addressing potential risks identified and implementing appropriate mitigation action plans.
- The AESO reports its significant risks to the Audit Committee on a regular basis and provides updates on the implementation of mitigation strategies that are undertaken.
- The AESO, its Members and its employees are extended a degree of statutory liability protection consistent with the AESO's public interest mandate.
- The AESO carries insurance coverage that is deemed to be appropriate by management. The insurance coverage may not be adequate to cover all possible risks and the proceeds of any insurance claim may not be adequate to cover all potential losses.

Forward-Looking Statements

This MD&A contains forward-looking statements that are subject to certain assumptions and risks that create uncertainties. These assumptions and risks could cause actual results to differ materially from results anticipated by the forward-looking statements.

Additional Information

Additional information relating to the AESO can be found on the corporate website at www.aeso.ca

Management's Responsibility for Financial Reporting

The financial statements of the Alberta Electric System Operator (AESO) are the responsibility of management and have been approved by the AESO Board. These financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles, and include the use of estimates and assumptions that have been made using management's best judgment. Financial information contained elsewhere in this annual report is consistent with that in the financial statements.

To discharge its responsibility for financial reporting, management maintains a system of internal controls designed to provide reasonable assurance that the AESO's assets are safeguarded, that transactions are properly authorized and that financial information is relevant, accurate and available on a timely basis. Internal controls are reinforced through the AESO's Codes of Conduct, which set forth the AESO's commitment to conduct business with integrity, and within both the letter and the spirit of the law.

The AESO Board, through the Audit Committee, is responsible for ensuring management fulfils its responsibility for financial reporting and internal controls. The Audit Committee meets regularly with management and the external auditors to discuss any significant accounting, internal control and auditing matters to determine that management is carrying out its responsibilities and to review and approve the financial statements.

The financial statements have been examined by Deloitte & Touche LLP, the AESO's external independent auditors who are engaged by the AESO Board. The responsibility of these external auditors is to examine the financial statements and express their opinion on the fairness of the financial statements in accordance with Canadian generally accepted accounting principles. The auditors' report outlines the scope of their examination and states their opinion. The auditors have access to the Audit Committee, with and without the presence of management.

David Erickson, CA
President & Chief Executive Officer

Todd D. Fior, CA
Vice-President, Finance

Auditors' Report

To the Members of the Alberta Electric System Operator Board

We have audited the balance sheets of the AESO as at December 31, 2009 and 2008 and the statements of operations and comprehensive income and cash flows for the years then ended. These financial statements are the responsibility of the AESO's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the AESO as at December 31, 2009 and 2008 and the results of its operations and its cash flows for the years then ended in accordance with Canadian generally accepted accounting principles.

Deloitte & Touche LLP

Chartered Accountants
Calgary, Alberta

February 17, 2010

Balance Sheet

As at December 31 (in thousands of Canadian dollars)	2009	2008
Assets		
Current assets		
Cash	$ 40,191	$ 12,746
Accounts receivable *(note 4)*	113,231	122,316
Prepaid expenses and deposits	6,502	6,588
MSA deferral account receivable	42	–
AESO deferral account receivable *(notes 3 and 9)*	2,918	11,699
	162,884	153,349
Intangible assets *(note 6)*	40,583	28,036
Capital assets *(note 7)*	26,859	27,566
	$ 230,326	$ 208,951
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities *(note 8)*	$ 113,581	$ 114,726
MSA deferral account payable	–	164
Security deposits *(note 15)*	1,811	1,032
Bank debt *(note 10)*	113,650	91,600
	229,042	207,522
Deferred rent	1,284	1,429
Equity *(note 1)*	–	–
	$ 230,326	$ 208,951

Asset retirement commitment *(note 12)*

Contingencies and commitments *(note 13)*

On behalf of the AESO Board:

Harry Hobbs
AESO Board Chairman

Robert McClinton, CA
Audit Committee Chair

See accompanying notes.

Statement of Operations and Comprehensive Income

For the Year Ended December 31 (in thousands of Canadian dollars)	2009	2008
Revenue		
Transmission tariff	$ 895,267	$ 1,091,608
Energy market charge	27,307	22,313
Load settlement charge	4,026	3,609
Interest and other	1,464	2,869
	928,064	1,120,399
Operating costs and expenses		
Wires costs	566,800	498,988
Ancillary services costs	134,301	311,940
Line losses	123,083	220,583
General and administrative	71,564	62,949
Other industry costs	21,374	16,725
Amortization *(notes 6 and 7)*	9,625	7,815
Interest expense *(note 10)*	1,317	1,399
	928,064	1,120,399
Net income and comprehensive income	$ –	$ –

See accompanying notes.

Statement of Cash Flows

For the Year Ended December 31 (in thousands of Canadian dollars)	2009	2008
Operating activities		
Net income	$ –	$ –
Amortization	9,625	7,815
Changes in non-cash working capital*	8,805	(22,550)
Net cash provided by (used in) operating activities	18,430	(14,735)
Investing activities		
Intangible asset additions	(18,627)	(14,938)
Capital asset additions	(2,838)	(5,485)
Net cash used in investing activities	(21,465)	(20,423)
Financing activities		
Increase in bank debt	22,050	55,900
Decrease in deferred rent	(145)	(122)
Increase (decrease) in AESO deferral accounts	8,781	(69,705)
(Decrease) increase in MSA deferral account	(206)	159
Net cash provided by (used in) financing activities	30,480	(13,768)
Increase (Decrease) in cash	27,445	(48,926)
Cash, beginning of year	12,746	61,672
Cash, end of year	$ 40,191	$ 12,746
Cash interest paid	$ 1,294	$ 1,379

* *Consists of changes in accounts receivable, prepaid expenses and deposits, accounts payable and accrued liabilities, and security deposits.*

See accompanying notes.

Notes to the Financial Statements

December 31, 2009 and 2008

(All amounts are in thousands of Canadian dollars unless otherwise indicated)

1. Nature of Operations

The Independent System Operator (ISO), operating as the Alberta Electric System Operator (AESO), is a statutory corporation established on June 1, 2003 under the *Electric Utilities Act* (EUA) of the Province of Alberta.

Effective June 1, 2003, the AESO assumed responsibility for the operation of the competitive power pool; determining the order of dispatch of electric energy and ancillary services; providing system access service on the electric transmission grid; directing the safe, reliable and economic operation of the interconnected electric system; planning the capability of the transmission system to meet future needs; and administering load settlement.

The AESO is governed by a Board consisting of Members appointed by the Alberta Minister of Energy, who are required to act in the public interest and independently from any person or entity having a material interest in the electricity industry. In addition, the AESO Board collectively acts in the public interest and independently from the electricity industry. The AESO Board has three committees: Audit Committee; Human Resources, Compensation and Nominations Committee; and Corporate Governance Committee.

The EUA requires that charges to industry, including the transmission tariff, energy market charge and load settlement charge, be set to recover the costs required to operate the AESO, and that the AESO be operated so no profit or loss results on an annual basis from its operations. The AESO has no equity.

The AESO's transmission-related financial activities are regulated by the AUC or Regulator and approved based upon the AESO's General Tariff Applications.

Management views the operations as one fully integrated operation; therefore, segmented information is not applicable.

2. Summary of Significant Accounting Policies

These financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles (GAAP).

USE OF ESTIMATES – Preparation of these financial statements requires estimates and assumptions that affect the amounts reported and disclosed in the financial statements and related notes. These estimates and assumptions include information, regulatory decisions and other matters that are periodically influenced by third parties that may impact the timing of revenue and/or expense recognition. Actual results may differ from those estimates and assumptions due to factors such as the useful lives and impairment of capital assets, intangible assets, accrued liabilities, settlement of an asset retirement commitment and regulatory decisions. Any changes from current estimates or assumptions are accounted for in the period that they are determined.

CHANGE IN ACCOUNTING ESTIMATE – During the year ended December 31, 2008, the estimate for the useful life of an intangible asset was increased. The change in estimate was due to an assessment of the period in which the asset would be available and used in the AESO's operations from a five-year to a seven-year amortization period ending in 2012. The impact of this change on 2008 amortization was a decrease of $1.1 million.

DEFERRALS – The AESO utilizes deferral accounts to facilitate a matching of revenues and costs. On an individual basis for the transmission, energy market and load settlement operations, in circumstances where annual collections are in excess of the costs, the excess amount is recognized in the deferral accounts and refunded in the subsequent year. In circumstances where annual collections are less than the costs, the shortfall is recorded as revenue, recognized in the deferral accounts and collected in the subsequent year.

A portion of the energy market charge collected by the AESO is remitted to the Market Surveillance Administrator (MSA), a separate statutory corporation, according to its revenue requirement as provided in the EUA. When the annual revenue collected on behalf of the MSA through the energy market charge collection process is different than the funding payments made to the MSA, the difference amount is recognized in the deferral account and is incorporated into the estimated per megawatt hour charge for the following year.

INTANGIBLE ASSETS – Intangible assets include computer software and are stated at the cost less accumulated amortization. These assets are amortized on a straight-line basis over their estimated useful life as follows:

Software development	5 to 7 years
System coordination computer systems	7 years

Interest costs attributable to and incurred during the development phase of large projects are capitalized. Capitalization ceases when the projects are substantially complete and ready for productive use. Payroll and payroll-related costs associated with staff directly involved in software development are capitalized as intangible assets.

CAPITAL ASSETS – Capital assets are stated at cost less accumulated amortization. These assets are amortized on a straight-line basis over their estimated useful life as follows:

Computer hardware, furniture and office equipment	3 to 5 years
System coordination computer systems	7 years
System coordination facility	Over the land lease term ending in 2025
Facility infrastructure	10 years
Leasehold improvements	Over the lease term ending in 2014

Interest costs attributable to and incurred during the development phase of large capital projects are capitalized. Capitalization ceases when the projects are substantially complete and ready for productive use. Payroll and payroll-related costs associated with staff directly involved in hardware development are capitalized.

REVENUE RECOGNITION – The AESO's revenue is primarily derived through three separate charges: (i) the transmission tariff; (ii) the energy market charge; and (iii) the load settlement charge. Each of these charges is set to recover those costs directly attributable to one of the AESO's main functions as well as a portion of shared corporate services costs. Consistent with the requirements of the EUA, which requires the AESO to operate with no annual profit or loss, revenue is recognized equivalent to the aggregate of annual operating costs on a function-by-function basis.

The EUA requires the AESO to provide funding for the MSA with the amount to be recovered through the energy market charge. The energy market charge included in the AESO's statement of operations and comprehensive income does not include amounts recovered related to the MSA's funding requirements and the AESO's costs do not include amounts related to the operations of the MSA. The difference in the revenue collections and the monthly payments associated with the MSA are recorded in the MSA deferral account.

DEFERRED RENT – The lease costs associated with the 10-month, rent-free period will be recognized over the 10-year lease term.

DEFERRED GOVERNMENT GRANT – The AESO recognizes government grants as a reduction to expenses in the period the expenses are incurred. Government grants received or receivable in advance of expenses incurred are recorded as deferred charges.

EMPLOYEE FUTURE BENEFITS – The AESO's employee future benefit program consists of a defined contribution plan. The AESO's contributions to employee future benefit plans are expensed as incurred.

FINANCIAL INSTRUMENTS – The AESO has evaluated the five classifications of financial instruments, namely i) held for trading, ii) available for sale, iii) held to maturity, iv) loans and v) receivables and other financial liabilities, and designated its financial instruments.

COMPREHENSIVE INCOME – As the AESO does not have any other comprehensive income, net income equals comprehensive income.

Recent Accounting Pronouncements Adopted

Effective January 1, 2009, the AESO adopted the provisions of the Canadian Institute of Chartered Accountants (CICA) Handbook, section 3064, "Goodwill and Intangible Assets". This section supersedes sections 3062, "Goodwill and Other Intangible Assets" and 3450, "Research and Development Costs". Section 3064 establishes standards for the recognition, measurement, presentation and disclosure of goodwill subsequent to its initial recognition and of intangible assets. This section is reflected in note 6 of the AESO's financial statements.

In June 2009, the CICA amended section 3862 "Financial Instruments – Disclosures" to improve disclosures related to fair value measurements of financial instruments, including the relative reliability of the inputs used in those measurements and liquidity risk, in light of concerns that the nature and extent of liquidity risk requirements were unclear and difficult to apply. These disclosures are effective for the AESO's December 31, 2009 financial statements.

Effective January 1, 2009 the AESO adopted Emerging Issues Committee[1] (EIC) 173, "Credit Risk and the Fair Value of Financial Assets and Financial Liabilities". This abstract concludes that for all financial assets and liabilities measured at fair value an entity's own credit risk and the credit risk of the counterparty should be taken into account when determining the fair values of financial assets and financial liabilities, including derivative instruments. The adoption of this abstract did not impact the AESO's financial statements.

Recent Accounting Pronouncements Not Yet Adopted

In January 2009, the CICA issued section 1582 "Business Combination", which establishes standards for the accounting for a business combination. This section applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2011. Early application is permitted. If an entity chooses to early adopt, it must disclose that fact and early adopt sections 1601 and 1602 at the same time. The adoption of this standard is not expected to have an impact on the AESO's results of operations, financial position or cash flows.

[1] *The Emerging Issues Committee is a sub-committee of the Canadian Institute of Chartered Accountants.*

3. Financial Statement Effects of Rate Regulation

Regulatory assets represent certain costs incurred in the current period or in prior periods that are expected to be recovered from customers in future periods through the rate-setting process. Regulatory liabilities represent future reductions of revenues associated with amounts that are expected to be refunded to customers as a result of the rate-setting process.

As of December 31,	2009	2008
Regulatory assets		
Transmission deferral	$ –	$ 10,720
Regulatory liabilities		
Transmission deferral	$ 66	$ –

At December 31, 2009, the transmission deferral liability was $0.1 million based upon an accumulation of variances between transmission revenue collections and costs incurred in 2009 and prior years. The AESO applies to the Regulator for the approval and settlement of deferral balances. The transmission deferral balance is a regulatory asset or liability, based upon the expectation that amounts accumulated from one year to the next will be approved for collection from, or refund to, customers in a subsequent year. In the absence of rate regulation, GAAP would require that such balances be included in operating results in the year in which they are incurred. The regulatory liability is included in the AESO's net deferral accounts receivable on the balance sheet at December 31, 2009 (note 9).

All transmission-related financial activities of the AESO are subject to the Regulator's approval, thus the recovery of transmission costs through the transmission tariff is subject to regulatory approval. With the formation of the AESO through the EUA, the AESO must be managed so no profit or loss results on an annual basis from its operations. Management believes that the ultimate recovery is assured due to the not-for-profit status of the AESO.

4. Accounts Receivable

As of December 31,	2009	2008
Transmission settlement	$ 100,493	$ 105,436
Energy market settlement	2,784	1,513
Trade	9,954	15,367
	$ 113,231	$ 122,316

5. Government Grants

In 2007, the AESO undertook an initiative to study the best approach to forecast wind power in Alberta. The Alberta Department of Energy and the Alberta Energy Research Institute committed to providing partial funding for this project. These grants relate specifically to this project and will not continue in the future. Full funding was conditional upon completion of the study and providing a final report on the project findings. The AESO complied with the terms of the grant agreements and foresees no issues that would change this status. There is no contingent liability recorded for any repayment of grant amounts received. At December 31, 2009, all funding was received for overall project funding of $0.7 million.

In 2009, the financial statements recognize no reduction to general and administrative expenses related to the government grants (2008 – general and administrative expense reduction of $0.3 million).

6. Intangibles

	Cost	Accumulated Amortization	2009 Net Book Value
System coordination computer systems	$ 15,848	$ 378	**$ 15,470**
Software development	33,229	18,352	**14,877**
Work in progress	10,236	–	**10,236**
	$ 59,313	$ 18,730	**$ 40,583**

	Cost	Accumulated Amortization	2008 Net Book Value
Software development	$ 31,457	$ 13,564	$ 17,893
Work in progress	10,143	–	10,143
	$ 41,600	$ 13,564	$ 28,036

Work in progress relates to intangible asset acquisitions associated with various software development projects (2009 and 2008) and the system coordination computer systems (2008) that were not commissioned or operational by the end of the year.

For the 12 months ended December 31, 2009, $2.4 million of payroll and payroll-related costs associated with staff directly involved in software development have been capitalized (2008 – $2.1 million) and interest costs of $0.2 million were capitalized in 2009 during the design and development phases of the system coordination computer systems project (2008 – $0.1 million).

7. Capital Assets

	Cost	Accumulated Amortization	2009 Net Book Value
System coordination facility	$ 19,214	$ 3,153	**$ 16,061**
System coordination computer systems	2,392	57	**2,335**
Leasehold improvements	4,081	1,812	**2,269**
Computer hardware, furniture and office equipment	5,941	3,837	**2,104**
Facility infrastructure	2,586	789	**1,797**
Work in progress	2,293	–	**2,293**
	$ 36,507	$ 9,648	**$ 26,859**

	Cost	Accumulated Amortization	2008 Net Book Value
System coordination facility	$ 19,205	$ 2,123	$ 17,082
Computer hardware, furniture and office equipment	7,122	4,169	2,953
Leasehold improvements	4,072	1,340	2,732
Facility infrastructure	2,563	531	2,032
Work in progress	2,767	–	2,767
	$ 35,729	$ 8,163	$ 27,566

Work in progress relate to capital acquisitions associated with hardware (2009 and 2008) and the system coordination computer systems (2008) that were not commissioned or operational by the end of the year.

For the 12 months ended December 31, 2009, $0.2 million of payroll and payroll-related costs associated with staff directly involved in hardware development have been capitalized (2008 – $0.2 million) and interest costs of $0.03 million were capitalized in 2009 during the design and development phases of the system coordination computer systems project (2008 – $0.02 million).

8. Accounts Payable and Accrued Liabilities

As of December 31,	2009	2008
Transmission settlement	$ 68,665	$ 85,965
Trade	38,782	21,327
Accrued liabilities	6,134	7,434
	$ 113,581	$ 114,726

The accounts payable trade balance includes flow-through customer contribution amounts of $0.3 million in 2009 (2008 – $1.9 million).

9. AESO Deferral Accounts (Receivable) Payable

	Transmission	Energy Market	Load Settlement	Total
Opening balance, January 1, 2008	$ 50,657	$ 6,312	$ 1,037	$ 58,006
2008 Operations	(10,237)	(9,141)	813	(18,565)
Distribution of the 2004-2007 Deferral Account Reconciliation Application	(51,140)	–	–	(51,140)
Closing balance, December 31, 2008	(10,720)	(2,829)	1,850	(11,699)
2009 Operations	4,410	(361)	(1,644)	2,405
Collection of the 2008 Deferral Account Reconciliation Application	6,376	–	–	6,376
Closing balance, December 31, 2009	**$ 66**	**$ (3,190)**	**$ 206**	**$ (2,918)**

10. Credit Facilities

The AESO has credit facilities of $160.0 million in demand revolving loan facilities. The facilities provide that the borrowings may be made by way of fixed rate offer loans, prime loans or bankers' acceptances, which bear interest at the rates specified in fixed rate offer loans, at the bank's prime rates, or at bankers' acceptance rates plus a stamping fee. There is an option to request letters of credit in the credit facilities.

In addition to the two loan facilities, a demand treasury risk management facility of $9.0 million in deemed risk content is available to provide for interest swaps for up to $35.0 million in notional debt. This facility was not used in 2009 and 2008.

At December 31, 2009, $113.7 million (2008 – $91.6 million) was drawn on the facilities and a $10.0 million letter of credit was issued as security for operating reserve procurement.

The amount of interest paid during 2009 was $1.3 million (2008 – $1.4 million) at an average interest rate of 0.5 per cent.

11. Capital Disclosure

In managing capital, the AESO reviews its cash flows from operations, including the transmission tariff, energy market charge and load settlement charge, to determine whether there are sufficient funds to cover its operating costs and pay for intangible and capital purchases. To the extent that the cash flows are not sufficient to cover these expenditures, the AESO utilizes debt financing. The AESO has no equity or externally imposed capitalization requirements.

As of December 31,	2009	2008
Bank debt	$ 113,650	$ 91,600

12. Asset Retirement Commitment

The system coordination facility is located on leased land. Under the terms of the lease agreement, the AESO is obligated, at the request of the landlord, to complete site restoration upon termination of the lease. The landlord's intentions are not determinable at this time. As the fair value of the obligation cannot be reasonably estimated due to the broad range of settlement dates and cash flows, any potential liability has not been recognized. Amounts will be accounted for in the period they are determined.

13. Contingencies and Commitments

(i) The AESO leases office space, data processing equipment and land under various operating leases. The minimum lease payments associated with these leases are as follows:

Year	Amount *($ million)*
2010	2.9
2011	2.2
2012	2.3
2013	2.4
2014	2.3
Thereafter	1.1

(ii) To fulfil the duties of the AESO in accordance with the EUA, the AESO manages the procurement of ancillary services through contracts with third-party suppliers. These ancillary services include operating reserves, transmission must-run, load shed and system restoration. The contracts are for generation capacity and load reduction capabilities ranging in contract duration from one day to 20 years. The amount to be paid under each contract is dependent upon fixed and variable terms. The variable terms are based upon commodity prices, dispatch volumes and frequency.

(iii) As a result of events that have occurred, the AESO may become party to a claim or legal action arising in the normal course of business. While the outcome of these matters is uncertain, the AESO does not currently believe that the outcome related to these matters or any amount that the AESO may be required to pay would have a materially adverse effect on the AESO as a whole.

(iv) The EUA requires the AESO to provide funding for the MSA with the amount to be recovered through the energy market charge. In 2009, $3.1 million was paid to the MSA (2008 – $3.4 million).

(v) The *Alberta Utilities Commission Act* requires the AESO to provide funding for the AUC with the amounts to be recovered through the transmission tariff and the energy market charge. In 2009, $17.7 million was paid to the AUC (2008 – $16.6 million).

14. Employee Future Benefits

The contributions to the defined contribution plan are based on a percentage of an employee's salary with the AESO matching employee contributions to a maximum percentage. There is no unfunded obligation related to the plan as contributions are paid to employees when earned. Total expense for the defined contribution plan was $2.7 million in 2009 (2008 – $2.5 million).

15. Security Deposits

Security requirements for financial obligations in excess of unsecured credit limits are met with cash deposits and letters of credit. All market participants and transmission customers who have financial obligations to the AESO must adhere to the ISO rules and transmission tariff terms and conditions regarding security requirements. Unsecured credit is granted by the AESO to organizations (or guarantors) with an acceptable credit rating from an AESO recognized bond rating agency, to organizations that do not have a credit rating if they qualify for an AESO determined proxy credit rating, and to organizations that have an exempt status as determined through government legislation. The unsecured credit granted by the AESO to an organization is limited based on the AESO's assessment of the organization's credit worthiness.

16. Financial Instruments

Financial Instrument	Designated Category	Measurement Basis	Associated Risks	Fair Value at December 31, 2009
Cash	Held for trading	Fair value	Liquidity risk	Carrying value approximates fair value due to short-term nature
Accounts receivable AESO deferral accounts receivable MSA deferral account receivable	Loans and receivables	Initially at fair value and subsequently at amortized cost	Credit risk	Carrying value approximates fair value due to short-term nature
Accounts payable and accrued liabilities MSA deferral account payable	Other financial liabilities	Initially at fair value and subsequently at amortized cost	Liquidity risk Market risk	Carrying value approximates fair value due to short-term nature
Security deposits	Other financial liabilities	Initially at fair value and subsequently at amortized cost	Liquidity risk	Carrying value approximates fair value due to short-term nature
Bank debt	Other financial liabilities	Initially at fair value and subsequently at amortized cost	Liquidity risk	Carrying value approximates fair value due to short-term nature and variable interest rates

Nature and Extent of Risks Arising From Financial Instruments

The AESO is exposed to the following types of risks in relation to its financial instruments:

A) CREDIT RISK – The risk that a counterparty may default on their financial obligations to the AESO. Due to the EUA requirement that the AESO be operated with no profit or loss from its operations, credit risk is ultimately borne by transmission customers and energy market participants, though managed by the AESO.

Counterparties are granted certain levels of unsecured credit with the AESO based on their long-term unsecured debt rating provided by a major reputable corporate rating service satisfactory to the AESO or, in the absence of the availability of such ratings, the AESO has satisfactorily reviewed the counterparty for creditworthiness as appropriate. Letters of credit, cash on deposit and legally enforceable right to set off are used to mitigate risk where appropriate. As at December 31, 2009, the amount of financial assets that were past due was not material and there were no uncollectible receivable balances.

B) MARKET RISK – The risk of a potential negative impact on the balance sheet and/or statement of operations and comprehensive income resulting from adverse changes in the value of financial instruments as a result of changes in certain market variables. This includes interest rate price and foreign exchange risks.

The AESO's bank debt is comprised of short-term bankers' acceptances that bear interest at market rates. Accordingly, the exposure to interest rate price risk in relation to the bank debt at the balance sheet date is not material.

The AESO conducts slightly over one per cent of its business in U.S. dollars and accordingly is subject to currency risk associated with changes in foreign exchange rates in relation to payables. The AESO monitors its exposure to currency risk and reviews whether the use of derivative financial instruments is appropriate to manage potential fluctuations in foreign exchange rates. The AESO has not entered into any derivative instruments with respect to currency risk.

C) LIQUIDITY RISK – The risk that the AESO will not be able to meet its obligations associated with financial liabilities. The AESO does not consider this to be a significant risk as the available borrowing facilities and secured credit provide financial flexibility to allow the AESO to meet its obligations as they come due. The AESO does not consider there to be a present risk in relation to funds availability to the AESO under the existing borrowing facilities.

Summarized Quantitative Data Associated with the Above Risks

A) CREDIT RISK – At December 31, 2009, AESO's maximum exposure to receivable credit risk was $116.1 million, which is the aggregate of accounts receivable and AESO deferral accounts receivable.

The AESO's receivables are due from counterparties that have provided security to the AESO or have been granted unsecured credit based on satisfactory credit ratings. As at December 31, 2009, the amount of financial assets that were past due was not material.

B) MARKET RISK – The AESO is exposed to currency risk on $1.4 million of U.S. dollar denominated financial liabilities at December 31, 2009.

If the Canadian dollar increases (decreases) against the U.S. dollar by five per cent prior to the payment by the AESO, operating costs would decrease (increase) by less than $0.1 million and intangible asset costs would decrease (increase) by less than $0.1 million.

C) LIQUIDITY RISK – The AESO's bank debt and accounts payable and accrued liabilities generally have contractual maturities of six months or less.

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